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Exploring the Roots of Parental Burnout from Contemporary Western Parenting Culture

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Abstract

In recent years, many parents have been suffering in their parental role. Some have become so fatigued that they experience parental burnout, an exhaustion syndrome resulting from excessive chronic stress in the parental role. Pioneering studies have shown that although parental burnout is common worldwide, Western (versus non-Western) parents are particularly vulnerable to parental burnout. To explore the reason for this, this thesis offers an overview of contemporary Western parenting culture and identifies three characteristics that may predispose Western parents to burnout: (1) parents cultivate parenting perfectionism; (2) parents perceive their solidarity and social support being eroded; and (3) society is incorporating challenging parenting standards into expectations of correct parenting. It then brings together five empirical studies that demonstrate the associations of these characteristics with parental burnout. Together, this work sheds crucial light on why Western parents are particularly susceptible to parental burnout and offers insights for future research and potential prevention initiatives.

Résumé

Récemment, de nombreux parents ont souffert dans leur rôle parental. Certains sont tellement fatigués qu'ils souffrent de burnout parental, un syndrome d'épuisement résultant d'un stress chronique excessif dans le rôle parental. Des études pionnières ont montré que, bien que le burnout parental soit courant dans le monde entier, les parents occidentaux (par opposition aux parents non occidentaux) sont particulièrement vulnérables au burnout parental. Pour en explorer les raisons, cette thèse propose une vue d'ensemble de la culture parentale occidentale contemporaine et identifie trois caractéristiques susceptibles de prédisposer les parents occidentaux au burnout : (1) les parents cultivent le perfectionnisme parental ; (2) les parents perçoivent une érosion de leur solidarité et de leur soutien social ; et (3) la société incorpore des normes parentales difficiles dans les attentes d'une parentalité correcte. Cette thèse rassemble ensuite cinq études empiriques qui démontrent les liens entre ces caractéristiques et l'épuisement parental. L'ensemble de ces travaux apporte un éclairage crucial sur les raisons pour lesquelles les parents occidentaux sont particulièrement susceptibles de souffrir d'épuisement parental et offre des pistes pour les recherches futures et les initiatives de prévention potentielles.

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Professor Dorota Szczygieł, words cannot express the depth of my gratitude to you. You have been more than just a mentor; you have been my closest friend. We have faced numerous challenges together, and your unwavering support has been a beacon of light, guiding me through the uncertainties of my research journey. I consider myself incredibly fortunate to have had the opportunity to know and work with you so closely. Thank you for everything.

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improving the quality of this dissertation but also in enriching my own knowledge and understanding. Your guidance has played a significant role in shaping this achievement.

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Approaching the end of my Ph.D. training evokes memories of the spark that ignited my research interest in parenting. In 2012, I enrolled in the advanced psychology course, “Socioemotional Development,” taught by Professor Keng-Ling Lay, who later becomes the supervisor of my master’s. During this course, I made my first presentation on a literature review in parenting. I distinctly recall feeling a strong enthusiasm and a desire to make that knowledge more accessible to parents and alleviate their caregiving burdens.

However, during my high school teacher internship, I had the invaluable opportunity to interact with numerous parents and listen to their deep frustrations in parenting. This experience led me to recognize the limitations of my previous knowledge and sparked a strong desire to delve deeper into the subject of parenting. It was at this crucial juncture that Professor Lay became my guiding light. She provided invaluable guidance in studying the relevant literature, provoked my thoughts, and supported me as I completed my first research endeavor in the field of parenting for my master’s. More than that, over the course of more than 10 years, Professor Lay has consistently offered unwavering support and belief in my potential, which has been instrumental in lifting me up during the challenging periods of my research journey. I am deeply grateful to you, Professor Keng-Ling Lay.

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PART I Overture

Prologue

Exploring the Roots of Parental Burnout from Contemporary Western Parenting Culture

Prologue

I worked on my PhD thesis in the context of several existing collaborations and networks, which offered crucial benefits and provided the conditions that allowed me to complete my thesis. These networks include Action de Recherche Concertée (ARC) and the International Investigation of Parental Burnout (IIPB) consortium. It may make it easier for readers to understand the research presented in this thesis if I give a brief account of the background and context.

To begin with, I was recruited as one of the PhD students working for the ARC project entitled “Parental Burnout and its Consequences for Children: Towards an Integrated and Multilevel Approach.” Before my arrival, the leaders/promoters, including Drs. Isabelle Roskam and Moïra Mikolajczak, had already developed solid work packages with research questions and working hypotheses. I was initially recruited to work with Dr. Mikolajczak on the work package entitled “From the ‘Good Parent’ Model to Parental Burnout and its Damaging Effect on Parenting Behaviors.” In this package, our project specifically aimed to test at the micro level—from the health psychology perspective—the extent to which the model of “the good parent” places pressure on parents and the extent to which that pressure predisposes parents to parental burnout and compromises parental behaviors.

After working on the ARC project for over one year, its leaders decided to reorganize the work packages. As a result, in addition to my original work package, I was further assigned to work on the package entitled “Cultural and Western Historical Context of Child’s Best Interests.” Under Dr. Roskam’s leadership, I specifically worked on a project that aimed to examine the cultural context in which a demanding and potentially stressful model of “the good parent” is prevalent. The combination of these two strands forms the crux of this thesis, which examines cultural influences on parental burnout on the basis of both macro- and micro-level analyses. The leaders of these two axis projects, Drs. Roskam and Mikolajczak, served as my promoters for the thesis.

In working on this project and the thesis, I have received vital support in many ways from the IIPB consortium. This consortium was initiated in 2017 and is led and managed by Drs. Roskam and Mikolajczak. The objective is to examine the conceptual validity, prevalence, and intercultural variation of parental burnout worldwide (for more detail: <https://www.burnoutparental.com/international-consortium>). To investigate these matters, members of this consortium have adopted a common protocol with regard to sociodemographic factors, parental burnout, and many other variables. More than 100 researchers in more than 42 countries are currently members of the consortium. Their profound enthusiasm and enormous efforts have yielded many important articles (e.g., eight articles in issue 174 of *New Directions for Child and Adolescent Development*) including the seminal “Parental Burnout Around the Globe: a 42-Country Study” (Roskam, Aguiar, et al., 2021 in *Affective Science*), providing me with a solid background for this thesis.

The findings of Roskam, Aguiar, and colleagues (2021) showed that both the point prevalence and the mean level of parental burnout vary widely across countries. The prevalence is as high as 10% in Poland and as low as around 0% in Thailand, and there is a 33-point difference between the country with the lowest mean level (Thailand) and the country with the highest (Poland). Western parents appear to be five times more vulnerable to parental burnout than non-Western parents. Roskam, Aguiar, and colleagues further examined the association of culture with parental burnout across countries; they demonstrated that individualism significantly predicts the difference in prevalence between countries. This seminal study highlighted the cultural influences on parental burnout and inspired this thesis to further investigate factors that explain Western parents' higher vulnerability to burnout.

In pursuing this research objective, the IIPB consortium gave me substantial help in the following ways. First, the consortium shared with me the huge international dataset that they collected in 2017-2018. This dataset contains the qualitative data that the thesis uses to explore what characteristics parents across 37 countries consider a good parent should possess (ideal-parent beliefs) (Lin, Mikolajczak, Keller, et al., 2023). The study just cited reveals five specific types of ideal-parent beliefs. For instance, Western parents, who have been found to be more vulnerable to parental burnout (Roskam, Aguiar, et al., 2021), place particular emphasis on being "loving and patient" to be considered as a good parent. These findings throw light on what the model of the "good parent" entails, an important question that was asked from the beginning in the ARC project.

Second, thanks to the collaborative network of the IIPB consortium and that of my promoters, I developed close collaborations with many researchers. This was crucial for me to work on this thesis at UCLouvain, Belgium. Since I do not speak French, Flemish, or German (the official languages in Belgium), it was challenging for me to collect data on my own in Belgium. To help me overcome this difficulty, my promoters introduced me to several IIPB consortium members, including Dr. Dorota Szczygiel (IIPB member from Poland) and Dr. Amit Goldenberg (IIPB member from the USA). These colleagues kindly shared precious datasets that they had collected previously, so that I did not need to collect data by myself and could proceed directly to the analysis of the data and to answering the questions raised in this thesis.

Collaborating with these colleagues involved me in some fruitful intellectual exchanges. These colleagues already had fantastic working hypotheses at the start of our collaboration. As we worked together, we exchanged perspectives, let our ideas diverge, and converged on a better solution, eventually producing many interesting articles. These articles formed a significant part of this thesis, including a follow-up study on the IIPB seminal paper (Lin & Szczygiel, 2022a), studies on other correlates with parental burnout (e.g., emotional display rules in parenting, Lin, Hansotte, et al., 2021; limited social support, Lin, Goldenberg, et al., 2022; child-oriented perfectionism, Lin, Szczygiel, et al., 2022, parenting perfectionism, 2023). Our collaborations have been so encouraging and fruitful that they have yielded many interesting new follow-up studies, which are either currently in preparation or have already

been published (e.g., Lin & Szczygieł, 2022b).

Finally, being a researcher originally from Taiwan working on a PhD thesis in Belgium proved to be an asset. My different cultural background gave me the necessary sensitivity to recognize the specific characteristics of Western culture. In this sense, my personal experience makes this thesis a research project that can be seen as being driven by the anthropological field method (see Shweder, 2007). I immersed myself in Western culture, observing countless parent-child interactions in natural settings and discussing or chatting with hundreds of parents across numerous Western countries whom I met and got to know during these years. These experiences certainly enriched this thesis and my research. After observing the commonalities and differences between Western and Taiwanese culture, together with my promoters I designed a study (expected to be completed in 2023) that was awarded a research grant in the second year of the thesis.

So, as a Taiwanese researcher, what have I observed from the lives of contemporary Western parents?

General Introduction
Modern Western Parenting Culture

Exploring the Roots of Parental Burnout from Contemporary Western Parenting Culture

General Introduction

Modern Western Parenting Culture

When I asked women what is the hardest thing about being a mother, many mothers spoke of feeling guilty because they frequently wonder if they are saying or doing the right thing, and nearly every mother reported feeling under pressure, or stressed. Lauren, a part-time working mother of three, exclaimed; “there’s so much pressure it’s insane!” Marie, an elementary school teacher, who has two children in middle school, believes that the mothers she interacts with everyday are under “enormous pressure” because mothers have so many “demands and expectations” with very little support. Most mothers take their responsibility for their child’s well-being very seriously and strive to do the best for their child, often using intensive mothering practices. (Ennis, 2014, p. 28)

Charles Dickens opens his 1859 historical novel, *A Tale of Two Cities*, with the sentence, “*It was the best of times, it was the worst of times*”, referring to the period before and during the French Revolution. It seems an appropriate sentence to open my thesis and describe current parents’ lives. At first glance, this may sound surprising, but for many parents today, such a description applies exactly to their parenting lives. On the one hand, raising children can be meaningful and enjoyable; in fact, it is so enjoyable that modern evolutionary psychologists have even placed it at the top of the pyramid of human needs and claimed that its satisfaction contributes greatly to human well-being (Kenrick et al., 2010). On the other hand, undeniably, most (if not all) of today’s parents agree that they are exhausted; they feel stressed, chaotic, and hectic, facing seemingly endless parental responsibilities.

Indeed, as many scholars have pointed out, the parental responsibilities delineated in today’s culture have reached unprecedented heights and are still growing (Nomaguchi & Fetto, 2018). These responsibilities include, for example, that parents have to adopt child-centered parenting strategies and invest a lot of time and financial and emotional resources in their parenting; such expanding parental responsibilities characterize today’s parenting culture. Researchers first identified such a demanding culture among mothers in North America (Hays, 1996). However, recent evidence has shown that this culture exists among both mothers and fathers (Craig et al., 2014; Ennis, 2014) and is not only prevalent in North America but, in fact, is the dominant parenting discourse in all Western societies (Arendell, 2000; Faircloth, 2014). This discourse even prevails in some traditionally non-Western societies because of the spread of globalization (Lan, 2018). Researchers have concluded that such intensified parental responsibilities are “a cultural backdrop of the era” (Nomaguchi & Milkie, 2020, p. 199).

This cultural background since the late 20th century does not come out of the blue but has been shaped by a long historical road. Over the past few centuries, many societies have experienced rapid social changes such as the triumph of economy and capitalism (Habib,

1995), the generalization of the democratic spirit (Kettenacker & Riotte, 2011; United Nations General Assembly, 1948), and the emergence of globalization (Barkawi, 2006). As well as consolidating individualism¹, these social changes have also intersected to undermine authority and prompt people to question (and erode) society's traditional binding forces (Giddens, 1994; Hobsbawm, 1995), thereby shaping a unique Western culture. These sociocultural changes have also shaped "peculiar" family/parenting culture (Henrich, 2020): Western domestic life is largely organized around parents and their children, with individual parents bearing layer upon layer of new parental responsibilities, for the most part on their own (see Hendrick, 2016).

1. The Increase of Individualism

After the two world wars, the private sector experienced an unprecedented boom referred to by some researchers as the "Thirty Glorious Years" (Foreman-Peck, 2014). Economic expansion affects how people perceive their relationships with others. As predicted in the theory of social change and human development (Greenfield, 2009), people have less need to rely on a group for survival when a society is prosperous, urban, and developed. This change allows people to prioritize individualistic personal values; for instance, they may emphasize personal entitlement before obligation, have concern only for self and immediate family, cherish individual autonomy and freedom, and see identity as being developed through achievement (Inglehart, 2018; Inglehart & Baker, 2000; Yamagishi et al., 2012). At

¹ Individualism, as a term, has its roots in Enlightenment thought and reaction to the French Revolution, espoused and elaborated upon by philosophers and sociologists, such as René Descartes, John Locke, and Émile Durkheim (see Burge, 1986). Accordingly, individualism is used to describe "a worldview antagonistic to community and collective social structure" (Oyserman, Kemmelmeier, et al., 2002, p. 3). This worldview can be further differentiated into numerous main facets, summarized in Cotois and Laermans (2018) and Waterman (1981): (1) individuals are self-centered and the sole proprietors of their own capacities or skills (also known as "utilitarian individualism"); (2) every human being deserves respect based solely on their humanity and respect for the integrity of others ("moral individualism"); and (3) people emphasize authenticity and want to express their "true self" (referred to as eudaimonism), expecting themselves to be free to make choices, feel personal causation, and assume personal responsibility ("expressive individualism"). Since modernization or the 1960s, the weakening of prior social institutions has made individualism particularly prevalent in Western society (Beck & Beck-Gernsheim, 2002).

However, it was not until the 1980s that individualism gained overwhelming popularity in the field of psychology academia. This popularity owes its prominence to Geert Hofstede (see Realo et al., 2002), who obtained employees' ratings of workplace-relevant values, averaged them into national scores, conducted factor analysis on these aggregated scores, and labeled one of the resulting factors as "individualism-collectivism." He defined individualism as a preference for a loosely-knit social framework in which individuals are expected to take care of themselves and their immediate families, and he assigned a score to each country accordingly (Hofstede, 2001). As revealed, Hofstede's framework only captured a particular aspect of the complex concept of individualism, specifically the relationship between individuals and their surrounding others in a society. Despite this limitation, his framework became widely popular, leading many researchers to directly collect individual responses and data of variables of interest from multiple countries and attribute the aggregate differences to the differences in cultural values of individualism assigned to each country in Hofstede's framework (Oyserman, Kemmelmeier, et al., 2002).

the level of society, these characteristics constitute an “individual-as-actor” cultural package that researchers call individualism, emphasizing free will, personal responsibility, and individual achievement (see Sampson, 1988; Waterman, 1981). Overall, the economic boom made it viable for individualism to become a basic cultural script in Western societies (Cortois & Laermans, 2018; J. W. Meyer & Jepperson, 2000).

2. The Demise of Traditions

The economy provided the breeding ground; the accompanying social changes that began in the 1960s were what allowed individualism to truly dominate in Western societies (Beck, 1994; also see Hamamura, 2012). First, in response to capitalism and the post-war economic boom (Marglin & Schor, 1991), people started to attach more importance to the acquisition and consumption of material goods and to consider capital as the ultimate good, above other values (see Kasser et al., 2007). Second, after the brutality of the world wars, belief in the importance of democracy was strengthened; fearing a new dictatorship (and war), people advocated cultural pluralism and strove to dispel authoritarianism and dismantle the hierarchy of power (Giddens, 1985, 1994, p. 93; Gleason, 1987; Kettenacker & Riotte, 2011). Finally, increased cross-national collaboration facilitated globalization, respect for cultural differences, and the promotion of cultural inclusiveness (Barkawi, 2006; Berger & Huntington, 2002; Giddens, 1994; Kellner, 1998). These changes—the pursuit of capital, the multiplication of disparate values, and the promotion of cultural diversity—led people to question the authoritative “institution” to which they had previously adhered: tradition.

The authority of existing socio-cultural customs and traditions was eroded by doubt, including old stereotypes and belief in religion, fate, or any supernatural power (Giddens, 1994). As a result, for the first time in history individuals became their own decision-makers and their own masters (a process that some sociologists have referred to as individualization; Dawson, 2012). Specifically, as tradition became less capable of defining and constraining individual choices, people enjoyed the “privilege” of consciously making choices about their lives and how to be and act (Mascini et al., 2013), and ultimately taking responsibility for the consequences of those choices; “self-consciousness and personal choice have become built-in expectations.” Personal autonomy and responsibility were at the heart of and individualism that thus gained in strength until it became a dominating cultural script in modern Western societies (Cortois & Laermans, 2018, p. 61). To this day, individualism permeates all human social spheres in Western societies (see Beck & Beck-Gernsheim, 2002; Henrich, 2020).

3. Parental Risk Consciousness

This cultural package of individualism grants people the privilege of making their own decisions, and of taking the consequences. These consequences can no longer be attributed to tradition; they are now peoples’ individual responsibility (Giddens, 1999). As stated, *“when it comes to making decisions, individuals are free and alone, but they are still alone when it comes to dealing with the consequences of their decisions”* (Jong, 2022, p. 3). Without

comfort from tradition, responsible people must carefully make their own choices to achieve positive outcomes and avoid negative consequences. They begin to be highly conscientious and cautious to avoid risks that may jeopardize their safety and future—they cultivate a heightened awareness of risks (hereafter, risk consciousness) and must invest extra efforts in continuously activating such awareness (Giddens, 1994, p. 75). Such a “risk society”—a term coined by Ulrich Beck—replete with peoples’ risk consciousness or speculation about “potential risks”, has been seen as an iconic characteristic of modern society (Beck, 1992).

The risk society appears to create a predicament and put new pressures on human beings. Parenting is no exception, because risk consciousness revolves not only around the safety and future of people themselves but also around that of vulnerable individuals who depend on them, such as their children (M. K. Nelson, 2010). In risk societies, when children face danger or adverse consequences that threaten their safety and future, their parents can no longer take those consequences for granted and see them as coming from a force beyond their control. Instead, these negative consequences are seen as the results of parents’ own decision-making. Parents—to be responsible—must cultivate a heightened risk consciousness (E. Lee, 2014b) with regard to any possibilities that endanger children’s safety and future. Together with the socio-economic changes since the 1960s, the media have fueled and exacerbated parental risk consciousness or anxiety about children’s safety and future, as seen below.

3.1 Parental Risk Consciousness about Children’s Safety

Since the 1960s, parental risk consciousness about children’s safety has expanded. This expansion may be due to rapid technological change and media growth, including the invention and spread of television (Waldfoegel, 2017), computers, and social media (Dijck, 2013). These technological advances have made human interaction and communication more fluid and borderless. They have also fueled parental risk consciousness by propagating fear-laden information about events such as the tragedy of Maria Colwell (killed by her stepparent in 1973), the murder of James Bulger (killed by other children in 1993), the Columbine massacre (a random school massacre in 1999), the September 11 attacks (in 2001), etc. Together, these have created an image of “children at risk”: children may encounter danger in unfamiliar surroundings, at school, or even within the family. It is no surprise, then, that today’s parents are so concerned about their children’s safety (Nomaguchi & Brown, 2011) and have developed numerous strategies to protect their children from these risks (e.g., Elliott & Aseltine, 2013).

3.2 Parental Risk Consciousness about Children’s Future

The situation is no rosier regarding parental risk consciousness about children’s future. Industrial society reached new heights in the 1950s. High productivity and technology brought unprecedented economic growth (Bell, 1976), and also gave rise to a knowledge economy: with technological advances, more knowledge was required in many jobs to operate innovative machinery. Moreover, as technology made mass production possible,

human power in production became less profitable. Society began to recognize the need for sufficient knowledge to succeed in the labor market (National Center on Education and the Economy. Commission on the Skills of the American Workforce, 1990). This highlighted the importance of human capital (or, broadly, intellectual capital)—skills and problem-solving abilities (Hershberg, 1996; Stewart, 2007; Vogt, 2016). In this context, parents recognized the importance of good education and started to include the fear of their children lacking good education in their risk consciousness about their children's future (see Lan, 2018; Milkie & Warner, 2014).

After the 1960s, parents become even more anxious about their children's education and future. The baby boom generation began attending college, became parents and had children who would go on to attend college themselves. The demand for college places soon exceeded the supply, and the competition for college admission became fierce (Alon, 2009). Describing this in 2010, Margaret Nelson noted that *"the media avidly reports all the details about this new competition and stirs up anxieties about status reproduction. [...] They told the sad tales of students with perfect SAT scores, valedictorians of their high school class boasting résumés sparkling with extracurricular activities, who were still denied entrance to the college of their choice"* (M. K. Nelson, 2010, p. 25). These terrifying narratives and unpleasant competition experiences of post-baby-boom-generation parents further reinforced concerns about their children's education and future. Another facet of "children at risk" thus came to their attention: children struggling to have a good education and a decent future. Parents strove to help their children overcome these difficulties (Cooper, 2014; Milkie & Warner, 2014; Nomaguchi & Milkie, 2020).

4. The Erosion of Parental Solidarity

A heightened parental risk consciousness has crucial consequences. It may affect parental solidarity (see Faircloth, 2020); given pervasive risks, parents may lose trust in other adults because they are all now potential aggressors (against children's safety) or interveners (in children's future). For example, an experimental study found that parents with children nearby (versus non-parents without children nearby) were more likely to perceive strangers as threatening (Fessler et al., 2014). "Strangers" may recognize this unwelcome attitude; they become reluctant to support parents because their help may not be appreciated by the recipients but may instead be seen as interfering with parents' parenting plan or misinterpreted as harming children. Consequently, parents may awkwardly fall into a void of social support when they eventually need help, especially from distant others (related discussion see Geens & Vandenbroeck, 2014). The saying "it takes a village to raise a child" may no longer hold: parents now rely on themselves (or at most, on close others) to care for their children (Furedi, 2002).

5. The Need for Parenting Science

A heightened risk consciousness predisposes parents to perceive that pervasive risks

jeopardize children's safety or hinder children's potential to pursue a better future/education. Terrified and anxious parents may turn to experts for better strategies to care for their children; yet, who can serve as such experts? Because traditions are now being dismantled, science is taking the place of tradition to instruct people's lives (Giddens, 1994). Science can use modern scientific methods to investigate whether what parents used to do in parenting (i.e., traditional parenting) may in fact improve child development. Based on empirical findings, science can instruct parents to abolish or preserve a specific aspect of the tradition or offer innovative parenting strategies. Either way, science aims to pave the way for parents to figure out what works best in raising children (Furedi, 2002; E. Lee, 2014a).

Such a discipline—parenting science—has interacted with the societal background, responding to the pressing needs of the societal sphere. Since the two world wars, socio-economic revolutions have brought new social problems and issues that require solutions. With the aim of solving social problems, some (parenting) scientists have directed their attention to family and parents and come up with a better childrearing strategy for parents to implement to nurture better next generations. As demonstration for this position, an investigation of the history of the term “parenting” showed that the term has been commonly used in academia since the 1950s and has been used to imply that parent-child relationships and parental behavior are problematic or flawed (E. Lee, 2014b, pp. 7–8). To improve “parenting,” generations of researchers have recommended different parenting strategies. Through such a problem-solving interaction, at least partly, parenting science has significantly flourished since the 1950s (Hendrick, 2016).

5.1 Since the 1950s: Child-Centered Parenting

In the post-war era, the problem that attracted researchers most was probably people's fear and insecurity. Having witnessed the horrific human cost of two world wars, the public was haunted by worries about further violence or another war approaching. Such anxiety could create a “*vast crucible in which all our [people's] preconceived views concerning human nature have been tested*” (see Rivers, 1922). People recognized once more the importance of good human values, such as harmony and sanity; they believed that these human values needed to be strengthened to prevent another insane war. Based on this belief, they longed for a way and a system to better cultivate these good human values (Hendrick, 2016); they needed a method that could nip the bud of authoritarianism, create an incubator of harmony and civilization, and ultimately restore “*the fading frontiers between sanity and madness, normality and deviance*” (G. Richards, 2000, p. 200; also see Fallace, 2018; Lasch, 2018).

Such a need constituted a highly pressing social concern at that time. In offering a remedy to this “civilization crisis,” Freudian psychoanalysis seized this opportunity to promote its discipline. Freudianism proposed intervention to prevent people from deviations (from normality) such as aggression, irrationalism, and cruelty, at the earliest time when those deviations might occur—in childhood (Auden, 1931; Rose, 1985). As their elixir for that

intervention, Freudianism advised parents to recognize children's emotional needs and understand their feelings, wishes, and anxieties, in its belief that satisfying children's emotional needs would ensure that they developed into adequate citizens (i.e., without deviations), thereby securing the welfare of the wider community (Rickman, 1936; also see Hendrick, 2016), for example by preventing new wars. Freudianism's therapeutic approach to childhood and parenting offered exactly what people craved in the post-war era; its approach therefore quickly spread and dominated medicine, education and social welfare policy (Kagan, 1998; e.g., Home and Schools Council, 1935).

Against the background of an uncertain society, many scholars emerged with insightful analyses that fueled this therapeutically oriented child-rearing approach (Kagan, 1996). So what precisely did these scholars recommend? We may answer this question by reviewing the iconic analyses of John Bowlby and Donald Winnicott. They are an obvious choice because they not only integrated their forerunners' and peers' views on child-rearing and propelled them to new heights. As Hendrick comments, "*[i]n every age, in the sphere of personal intimacies of the sort that influence our characters and personalities, there are individuals who help to give that age its tone, who light up its imagination of the possible, and instruct its moral temper.*" Bowlby and Winnicott were such figures in the post-war era (Hendrick, 2016, p. 100). As detailed below, although they came up with different conceptualizations of parenting, their proposals were mutually complementary and constituted the foundation of a child-centered parenting approach that required parents to pay careful attention to their children's emotional needs and ensure that those needs were met.

As one of the principal founders of attachment theory, Bowlby provided an overarching framework for studying the influence of early-year experiences on later development. He believed that to ensure better development of children, mothers should allow children to experience a warm, intimate, and continuous mother-child relationship, or what he called "secure attachment": an empathic, caring, compassionate, and cooperative social bond (Bretherton, 1992). Such a relationship, he argued, satisfies children's emotional needs, provides children with emotional security and enables children to learn (from their mothers) self-sacrifice and a sense of social commitment to the collective good; as a result, children are more likely to become better citizens and build a harmonious society (Bowlby, 1953). Overall, Bowlby believed that the function of parenting is to form a secure mother-child attachment that guarantees satisfying experiences in the early years of life so as to eventually "improve the community as a whole" (at least implicitly; see Hendrick, 2016; Van Dijken, 1998).

Like Bowlby, Winnicott also believed that it is a requisite that children have a positive relationship with their mothers for them to develop into healthy, mature adults. Winnicott further specified what mothers must do to meet that requirement. He proposed that mothers need to be devoted and to practice "good-enough" parenting. First, mothers must be sensitive, warm, and empathic toward their children. Second, mothers must tailor their care to children's needs and give children ample opportunity to experience frustrations so that they can learn to tolerate frustrations (Winnicott, 1992). Such good-enough parenting is the seedbed of a better democratic society; experiencing their mother's sensitive and flexible

adjustment and training, children cultivate the ability to regulate their primitive feelings (e.g., frustrations), respect others, and support each other (Shapira, 2013); thus “*civilization would start again inside a new human being*,” ultimately creating a harmonious, democratic society (Shapira, 2013, p. 132; also see Alexander, 2012; Winnicott, 1950; Hendrick, 2016).

As prominent advocates of Freudianism’s approach since the 1950s, Bowlby and Winnicott offered a working mechanism that would ensure a harmonious, democratic society; in this mechanism, parents (especially mothers) are assigned a crucial role. Parents must implement devoted and good-enough parenting, continually showing warmth and flexibly responding to the needs of children. Through adequate parenting, it is claimed, children can experience a positive mother-child relationship (or secure attachment) from their parents, learn the required skills, and eventually grow into independent, mature, and emotionally competent adults or citizens. The new generations may ultimately build a better society. Given Freudianism’s tenets, parenting no longer just serves to ensure the physical survival of children but has a moral and utilitarian mission, namely that of building a sound (e.g., democratic) society (Hendrick, 2016, p. 126). Despite being proposed decades ago, this ideology is still profoundly rooted in the thoughts of contemporary parents (Hays, 1996).

This ideology constitutes what recent scholars call “child-centered parenting,” a set of parenting strategies with a specific emphasis on satisfying children’s needs (see Dupont et al., 2022; Hays, 1996). For decades, child-centered parenting has prevailed in societies. For instance, at the public level, it is recommended in countless popular books, such as Jean Liedloff’s *The Continuum Concept*, first published in 1975, William and Martha Sears’ *The Baby Book*, first published in 1993, or the recent best-seller, Hunter Clarke-Fields’s *Raising Good Humans*, published in 2019. At the governmental level, it appears in the World Health Organization’s reports (Bowlby even authored several in the 1950s; see van der Horst et al., 2020) and governmental recommendations (e.g., American governmental recommendations; see National Center on Birth Defects and Developmental Disabilities (NCBDD), 2020; or the Council of Europe’s policy; see Rodrigo, 2010). These examples illustrate the crucial impact of Freudianism’s parenting recommendations, even to this day.

5.2 Since the 1960s: Authoritative Parenting

In the late 1960s, numerous new social problems flooded in. First, people witnessed significant loss of life and in some cases experienced the personal loss of loved ones from military incursions into foreign countries without any apparent benefit (e.g., the Vietnam War for Americans). Second, juvenile delinquency and dysfunctional family problems surfaced and were covered vividly and in detail by the mass media. These problems brought psychologists to the fore. They proposed that “[t]he most urgent problems of our world today are the problems we have made for ourselves. They have not been caused by some heedless or malicious inanimate Nature, nor have they been imposed on us as punishment by the will of God” (G. A. Miller, 1969, p. 1063). They believed that people desperately needed a solution to man-made problems, and psychological science—the study of human behavior—

should offer antidotes to those problems that should be promoted and given away to all humankind (Hendrick, 2016).

What antidotes did this generation of psychological scientists suggest? Like Bowlby and Winnicott, they focused on the role of parents. First, they proposed that intervention could prevent people's problem behaviors, and that the "natural environment," such as parent-child interactions, school, etc., was the most appropriate (and effective) for intervention because it was in such contexts that the behaviors occurred. Second, they also emphasized the need to intervene with children because, like Freudianism, they believed that children's future mindsets and behaviors were conditioned in early childhood (Tharp & Wetzel, 1969). Given such arguments, this generation of scientists claimed that society should train all parents (and teachers, etc.) as practitioners or mediators to apply appropriate interventions to their children. Society should blame parents for failing in their "intervention" if their children did not behave well (Hendrick, 2016; O'Dell, 1974). Once again, like their Freudian predecessors, these scholars assigned parents the responsibility for a better society: parents must learn how to intervene and prevent their children from becoming troublemakers.

What should parents learn to intervene with their children? To begin with, this newer generation of researchers (partly) embraced Freudian child-centered parenting, particularly its focus on parental warmth and a positive parent-child relationship, while abhorring its excessive liberalism and laxity (cf., Hendrick, 2016, p. 12). They disagreed with child-centered parenting over its failure to mention and emphasize the need for parental control over children, as this might make parents too tolerant of children's impulses, impose too few standards for behavior or performance, and punish children too little (Asmussen, 2011). They believed that insufficient/inadequate parental control predisposes children to develop low self-control and, eventually, juvenile delinquency—a major social problem in the 1960s.

Diana Baumrind led the discussion by introducing her parenting response to the social problems of the 1960s. First, she highlighted the importance of parental responsiveness: parents should meet their children's emotional and developmental needs. Second, she underscored the importance of complementing "loving" parenting with parental demandingness: Parents should set rules, control children's behavior, and demand maturity from them. Such a parenting style, blending both parental responsiveness and demandingness (and therefore called a "third power" as opposed to the other two parenting styles that emphasized one or other of these components) she called authoritative parenting. Her empirical studies revealed that authoritative parenting outperformed other styles in improving children's development (Baumrind, 1966, 1971).

Baumrind's authoritative parenting has been a great success even to this day. In science, decades of empirical studies have consistently shown that authoritative parenting is associated with a plethora of signs of better child adjustment, including fewer internalizing, externalizing, and social problems (see Bornstein, 2015; Pinquart, 2016, 2017). Converging scientific evidence has prompted the public to accept authoritative parenting as optimal, good, or positive parenting (see Daly, 2007; Y. Chen et al., 2019; Larzelere et al., 2012). In academia, promoting authoritative parenting has become a focal goal in parenting training programs

(such as Triple-P; Sanders & Mazzucchelli, 2017; Schilling et al., 2020). Outside academia, authoritative parenting pervades and dominates both the books of professionals and even current public policy (e.g., parenting tips provided by the National Center on Birth Defects and Developmental Disabilities (NCBDD), 2020; also the Council of Europe's policy on parenting; Rodrigo, 2010).

5.3 Since the 1970s: Parental Determinism

These early formulations from the 1950s to the 1970s outlined what it looks like to be a good parent, what is included in good parenting, and how these things are implicated in children's development. In a nutshell, to ensure children's optimal development, parents must be consistent in their caring, responding both verbally and emotionally (i.e., Bowlby's secure attachment); parents must meet children's needs appropriately (i.e., Winnicott's good-enough parenting); parents need to do more than simply meet children's needs, and parents must incorporate both responsiveness and demandingness in their daily parenting (i.e., Baumrind's authoritative parenting).

Since the 1970s, researchers have added to these early formulations and even moved forward to identify characteristics that may lead parents to adopt such good parenting to benefit children's developmental outcomes (Abidin, 1992; Belsky, 1984; Bornstein, 2016). Research (see Bornstein, 2015 for a review) has examined the impact of parental self-efficacy (see Wittkowski et al., 2017 for a review), parental involvement (see Fan & Chen, 2001 for a meta-analysis), and even parenting knowledge (Bornstein et al., 2010). Through this burgeoning research since the 1970s, parenting science has apparently achieved unprecedented popularity and continues to grow (see Bornstein, 2001; E. Lee et al., 2014).

The blossoming of parenting science has brought forth the need for "parenting experts" who can summarize and disseminate studies. Such a need has arisen because emerging studies often use innovative and advanced technologies (such as brain science; Macvarish, 2014a). These new methods expand researchers' repertoires, allowing them to examine a broader range of phenomena. However, they also make it challenging for parents to understand or intuit the results. Divergent and complex science daunts and barricades parents, creating the ever-increasing demand for parenting experts. These experts have sprung up to mediate communication between science and the public, disseminating their understanding of science to the public in a more accessible manner (Furedi, 2002; E. Lee, 2014a).

With the aid of "experts," parenting science has spread limitlessly; yet there have been accompanying concerns about communication (E. Lee, 2014a). Communication between science and the public can often lack accuracy (see Thompson & Nelson, 2001). Concretely, scientific opinions may be truncated, rearranged, and misinterpreted. Probably because of that, researchers have noticed that scientific opinions are often exaggerated (a related discussion see Collins et al., 2000; Salsburg, 2002) into a simple and singular deterministic perspective regarding parental influence on child development that catches the public eye. This perspective has formed what later researchers have called parental determinism, the

belief that parents' actions and choices toward their children will irreversibly influence children's development (Faircloth, 2014; Furedi, 2002). Parental determinism seems so popular that it has even permeated parental attitudes or societal expectations.

First, although parental determinism has been debunked by scientists as nothing more than a myth, it has proven to be attractive and powerful to parents (Furedi, 2002). Initially, parents may only want to seek scientific advice from experts. But some of those experts disseminate parental determinism; they threaten, exaggerate, and thus hook parents through parental determinism's claim of irreversible parental influence. Parents soon come to believe that they must consult experts before implementing a parenting strategy (even about whether to breastfeed or not; see Faircloth, 2013; Faircloth & Murray, 2015), lose their self-efficacy (Furedi, 2002; Glatz & Buchanan, 2021), and feel obliged to keep up with the experts' latest pronouncements (E. Lee, 2014a), set themselves high standards, and avoid any mistakes; in short, such parents cultivate an attitude of parenting perfectionism (Snell et al., 2005).

Second, parental determinism may also entice society to expect parents to practice "correct parenting" that optimizes the result of parenting—better child development (see E. Lee, 2014a). For instance, given the importance of parenting (suggested by parental determinism), social institutions such as governments may incorporate "correct parenting" into public policies, expect parents to comply, and punish parents who fail to implement any aspects (Nomaguchi & Milkie, 2020). Society's expectations are backed up by science (Faircloth & Murray, 2015); decades of research have enriched "correct parenting" with more and more details. Countless parenting experts have subsequently taken this material and published easy-to-read manuals that consolidate "correct parenting" and make these (supposedly) science-based expectations highly accessible to individual parents (Gopnik, 2016). Society has prescribed ever higher standards of "correct parenting," with which it expects parents to comply (see Romagnoli & Wall, 2012).

To conclude, since the 1970s, the booming new generation of parenting scientists has become more remote from parents due to its cutting-edge research methods. This barrier has created the need for parenting experts. These experts mediate between science and parents; they summarize knowledge derived from science, point to evidence in support of the need for good parenting and then propagate such information to parents. Such communication, however, often converges around parental determinism, with two results. First, it dominates parents' beliefs, causing them to adopt an attitude that they must follow the advice from parenting experts perfectly; such an attitude constitutes what researchers have recently called parenting perfectionism. Second, it may lead society to expect parents to apply "correct parenting" based on the findings of the thriving field of parental science. Consequently, parents can no longer carry out their role as they see fit or simply use "common sense" as they usually did before.

5.4 Midway Concluding Remarks

Terrified by ubiquitous risks, parents may consult science to know how to look after their children: child-centered parenting predominated from the 1950s; it was succeeded by

authoritative parenting, which prevailed from the 1960s. Both were proposed to meet pressing social needs: improving parenting would ensure that children could develop better, social needs could be met, and ultimately, a better society could be expected. These early formulations permeated and dominated society, and their influence continues up to the present day (Hendrick, 2016). Since the 1970s, newer generations of parenting science have elaborated on and supplemented these early formulations. Nevertheless, the flourishing parenting science comes with a pitfall: the diverse and daunting new science puts today's parents at risk of parental determinism. Partly because of this deterministic myth, parents strictly gauge their parenting behaviors (in an attempt to be perfect) and are expected to implement "correct parenting" as prescribed by cutting-edge science. As it stands, science seems likely to add layer upon layer of prerequisites for being good and responsible parents and thus to place countless demands on all parents, in addition to any benefits it may offer (Ennis, 2014; Furedi, 2002; Gopnik, 2016; M. K. Nelson, 2010).

6. Concluding Remark

The further you can look back, the further you can see forward.

--Winston S. Churchill

Quoted from Ennis's (2014) interview, the testimonies of Lauren and Marie reveal that parents are now under enormous pressure and feel exhausted. For pressures to persist and exert influence, there must be some entrenched driving force. As shown in this chapter, that driving force may lie in cultural and socio-historical factors. After the two world wars, society underwent dramatic sociocultural evolution. As traditions were set aside from the 1960s onwards, individualism came to prevail and now dominates many Western countries. The demise of tradition together with the prevalent individualism fostered the emergence of the "risk society" (Beck, 1992; Giddens, 1999). In such risk societies, parents are increasingly worried about their children's lives. Nowadays, parents do not just shoulder responsibility for their children's physical survival and safety (Brown, 2014); they are also expected to pay special attention to their children's education and ensure that children can reach the highest possible educational level so they can have a decent future (Milkie & Warner, 2014); and these views are expressed and promoted by the media.

The heightened risk consciousness among parents has affected Western parenting culture in two ways. First, terrified parents, feeling surrounded by risk, are less likely to trust others; such distrust ultimately breaks down solidarity and means that parents experience less support from their community. Parents must bear parental responsibility alone; parenting now lies solely with individual parents (Faircloth, 2020). Second, anxious parents turn to experts for better parenting strategies to care for their children. Given that prior tradition has been invalidated, parents often only consult science to guide their parenting. Science has flourished in this role for decades, but what it proposes has further consolidated parents' responsibilities (E. Lee, 2014b). First, parents must use child-centered and authoritative parenting that ensures children's better development. Second, the blossoming of parenting science has

created opportunities for parental determinism to grow. On the one hand, parental determinism attracts parents to cultivate an attitude of parenting perfectionism; on the other hand, it entices society to prescribe “correct parenting”, backed up by science, for parents to follow (Furedi, 2002).

In a nutshell, the period since the two world wars has seen dramatic changes in Western parenting culture. On the one hand, parents are losing their resources due to eroded parental solidarity and weakened social support; on the other, they bear unprecedented responsibilities prescribed by society and stemming from their parenting perfectionism. Given these demands on today’s parents, we may want to ask what the consequences might be. As observed in many commentaries, Western parents are becoming exhausted (e.g., Ennis, 2014; Hays, 1996; M. K. Nelson, 2010) and this seems to be increasing over time (e.g., Nomaguchi & Fetro, 2018). They have now become so exhausted that they have even been diagnosed as suffering from what recent researchers call parental burnout (Roskam et al., 2017). With all this in mind, when describing the lives of today’s Western parents, in addition to Charles Dickens’ famous sentence, we might want to add, “*Contemporary Western parenting culture predisposes parents to parental burnout.*” In the following chapters, I will curate empirical evidence for this proposition.

PART II State of the Art

Chapter 1 Parental Burnout

Parental Burnout

What are the implications for parents espousing today's Western parenting culture? As discussed in the previous chapter, Western societies underwent dramatic social and cultural changes after the two world wars. The interaction between flourishing individualism and eroded traditions catalyzed a "peculiar" Western parenting culture. Today, Western parents seem to have fewer resources and more responsibilities, as opposed to parents in other cultures. This observation leads me and many other researchers to believe that some aspects of Western parenting culture may overwhelm parents and pose a significant threat to their well-being (e.g., Gunderson & Barrett, 2017); the situation appears so extreme that some parents even suffer from what today's researchers call parental burnout.

My main goal in the following two chapters is to compile evidence associating Western culture as reviewed in the General Introduction with parental burnout. This association will be examined primarily in Chapter 2. Before that, Chapter 1 aims to describe exactly what parental burnout is. Parental burnout literature has its roots in the (job) burnout literature, and many assumptions in parental burnout research come from prior studies on (job) burnout. To grasp the gist of parental burnout, it seems necessary to broaden the perspective from parental burnout to (job) burnout and review the rationale underlying (job) burnout's conceptualization. Therefore, I will start by reviewing (job) burnout.

1. (Job) Burnout: A Brief Overview of the Origins of Parental "Burnout"

In daily language use, "burnout" has long existed as a metaphor commonly "used to describe a start or process of mental exhaustion, similar to the smothering of a fire or the extinguishing of a candle" (Schaufeli & Buunk, 1996, p. 311). For instance, in William Shakespeare's *The Passionate Pilgrim*, we find the line: "She burn'd out love, as soon as straw outburneth". Around the 1960s, "burnout" appeared more regularly and was often used to describe people's job-related situations. For instance, Graham Greene's 1960 novel, *A Burnt-Out Case*, describes the experience of a "burnt-out victim"²: the world-famous architect Querry, having lost his energy, no longer enjoying his life, and seeing no point in his work (in his case, seeing no beauty in art), eventually decides to travel abroad and retreats to the African jungles.

In academia, "burnout" has been used more regularly since the 1970s. The first article on the subject came from Bradley (1969), who adopted the term "burn-out" to describe the

² In early literature, variants of the term "burnout" are often used, such as "burn-out" or "burnt-out" (as described below). In this review, I have decided to follow their original usage, which may make these paragraphs challenging to follow. I regard this as a way of paying tribute to these pioneering authors.

exhaustion of probation officers in a center for juvenile delinquents. Bradley explained that officers' "burn-out" was primarily the result of chronic exposure to the demands of treatment programs and lack of time to recover from meeting those demands. Several years later, Freudenberger (1975), based on his experience and that of his colleagues at a free clinic, provided a comprehensive description of burnout; he defined "burn-out" as a syndrome encompassing the experiences of emotional depletion and gradual loss of motivation or commitment to work. He suggested that "burn-out" occurred primarily among the most dedicated workers and meant that the flame of workers' zeal for work was eventually extinguished.

In sum, for the development of burnout research, the 1960s-1970s marks "the pioneer phase." The writings in this phase concurred that burnout was a mental state that reflected experiences of extreme fatigue and loss of idealism and passion for work. Moreover, such a state seemed quite common among overenthusiastic workers and those whose resources could not compensate for their workload. Despite these similarities, there was little consensus on terminology definitions in these early writings: different names were given to similar phenomena, and conversely, the same labels were assigned to different symptoms. Consequently, "there was not always a basis for constructive communication about the problem and solutions for it" (Maslach et al., 2001, p. 402). It took another decade of the efforts of Christina Maslach and her colleagues provided a gold standard conceptualization of burnout that is still used today (Schaufeli et al., 2009, p. 211).

Maslach (1976) first conducted a qualitative study in which she interviewed workers in service professions about the emotions their work evoked. She found that the relationship with work could be daunting for some workers. First, they found their work so demanding that they suffered from extreme fatigue and emotional exhaustion. Second, in response to these intense feelings, they sometimes detached themselves from their work or distanced themselves from the service recipients, for example by interacting with them in a hostile, cruel, cynical, and impersonal way. In this way, workers protected themselves from the intense emotions their work and service evoked. Third, workers might see themselves as less productive and capable or low in efficacy. Maslach soon realized that the constellation of these experiences was colloquially referred to as "burnout"; the term was borrowed to represent these experiences in her report (Maslach & Schaufeli, 1993).

Based on these early interview findings, Maslach and Jackson (1981) defined burnout as a tridimensional syndrome that resulted from prolonged exposure to chronic stress experienced at work; it encompassed the dimensions of (1) *emotional exhaustion* about one's work; (2) *depersonalization* or cynical attitudes towards the client/patient; (3) *inefficacy* or dissatisfaction with work achievement. They created a measurement that gathered items manifesting the above three dimensions of burnout experiences and tested its psychometric performance through two samples of human services professionals. The resultant measure, the Maslach Burnout Inventory (MBI), demonstrated sound reliability, structural validity (through factor analysis), convergent validity (through comparing self-reports with behavioral ratings assessed independently by a person who knew the respondent well), and

divergent validity (through testing its separability from related constructs such as job satisfaction). The establishment of MBI proved that burnout existed and could be assessed.

MBI has been a great success. The first version of MBI was designed to assess the burnout experiences of workers in service occupations (Maslach & Jackson, 1981). Later, it was adapted to other specific work contexts, such as medical occupations, personnel occupations, and teaching, or even to a general work context, enabling it to be used to assess burnout in occupations as varied as maintenance, manufacturing and management (see Maslach et al., 1997). Moreover, psychometric studies of these measures also showed that Maslach and Jackson's original tridimensional model of burnout was universally applicable to populations from numerous occupations (e.g., Ahola et al., 2006; Schutte et al., 2000) and even across cultures (Hwang et al., 2003). To date, the MBI seems to be the gold standard in academia for assessing burnout, and three-dimensional burnout is the leading conceptualization of burnout (see Maslach et al., 2001, 2008).

With a gold-standard conceptualization, burnout research has become more empirical and systematic (Maslach & Leiter, 2016), ushering in the era of the so-called "empirical phase." In academia, more than 6,000 academic articles, books, book chapters, and dissertations have been published on the topics of burnout (see Schaufeli et al., 2009). This popularity has also led to public interest. Burnout is regarded as a public health problem in many advanced market economies, such as the United States and the United Kingdom (Shirom, 2003). It has gained so much attention that it was described in the tenth revision of the International Classification of Diseases (ICD) (World Health Organization, 1992); that description was then supplemented with more detail in the eleventh revision of the ICD (World Health Organization, 2018). In sum, "burnout" has clearly become a subject of great interest in both academia and the public; this might be because "burnout" captures a crucial part of the experience of today's workers (Schaufeli, 2017).

So far, we have mainly considered the history of the concept of burnout as an occupational hazard, a mental state that occurs in the work context; we have seen how it has been regarded as particularly prevalent in human services occupations, where *"the core of the job was the relationship between provider and recipient"* (Maslach & Leiter, 2016; Schaufeli, 2017). This is not surprising; although relationships in the workplace sometimes provide workers with resources to balance their work demands, it is also common for them to chronically fuel emotional tension, eventually leaving workers exhausted and suffering burnout. Because relationships play a central role in burnout, many researchers have considered job burnout *"not so much as an individual stress response, but in terms of an individual's relational transactions in the workplace"* (Maslach et al., 2001, p. 400). Based on this rationale, researchers have extended the context of burnout from work to social roles where relationships play a crucial role, for instance, students (Maroco & Campos, 2012). Some researchers have even proposed that "burnout" can occur to individuals as a general hazard without reference to a specific context (e.g., Melamed et al., 1999); this proposal is unsurprising, given the importance of relationships in human life.

2. The Conceptualization of Parental Burnout

2.1 The Pioneering Phase

Among extensions of job burnout, parental burnout—burnout stemming from the parenting context—has received particular attention in recent decades (Mikolajczak et al., 2021). As early as a decade after job burnout surfaced in academia, some researchers deduced that parents could also suffer from their parental role with the symptoms of burnout. The first writings are by Procaccini and Kiefaber (1983), who noted that some parents were so diligent in their parenting that they wanted to give their children the best; such overzealous commitment corresponded to the characteristics of workers vulnerable to job burnout (e.g., Freudenberger, 1975). Like that of workers, parents' over-enthusiasm might also lead them burn out. Several years later, Pelsma and colleagues (1989) examined this proposal; they reframed the MBI to the parenting context and tested its structural validity with a sample of non-working mothers. Their findings showed that from the gold-standard tridimensional model of job burnout, only emotional exhaustion and inefficacy were valid for burnout in the parenting context. This result suggested that burnout in the parenting context might not exhibit the same symptoms as in the work context.

At the beginning of the new millennium, newer generations of researchers renewed the discussion of parental burnout, suggesting that parental burnout might be of relevance to parents of children with special needs. They proposed that since those parents may experience additional long-term strain due to challenges related to the children's special needs (such as their disease), they may experience more parental burnout symptoms than other parents (Lindahl Norberg, 2007). Weiss (2002) was the first to raise these questions and validate this hypothesis. Like Pelsma and colleagues (1989), Weiss also adapted MBI to the parenting context. However, unlike Pelsma and colleagues' findings, Weiss reported that her modified version demonstrated sound structural validity; this result supported the application of the gold-standard tridimensional model of job burnout to the parenting context (although she did not report detailed psychometric data). In response to her main question, she found that parents of children with special needs, such as mental retardation and autism, did indeed experience a greater sense of inefficacy, thereby providing preliminary support for the idea that parents of children with special needs were vulnerable to parental burnout.

After that, it was not until 2007 that researchers began to systematically examine parental burnout, the pioneers being Annika Lindahl Norberg and her colleagues in Sweden (see Mikolajczak et al., 2022). Like Weiss (2002), they were interested in whether parents of children with special needs (versus other parents) experienced more burnout symptoms. For this research, unlike Weiss, they did not use the modified MBI (to the parenting context) but assessed burnout symptoms with the Shirom-Melamed Burnout Questionnaire (SMBQ). This questionnaire consists of context-free items and was developed to assess burnout experiences without referring specifically to any specific context (see Melamed et al., 1999). This measurement has been shown to have sound validity in a population-based sample (see

Sundström et al., 2022). Lindahl Norberg and her colleagues found in her series of systematic studies that parents experienced more burnout symptoms (versus reference groups—parents of children who did not have serious or chronic illnesses) if their children had a history of brain tumor (Lindahl Norberg, 2007), Type 1 diabetes mellitus (Lindström et al., 2010), or hematopoietic stem cell transplantation (Lindahl Norberg et al., 2014).

Lindahl Norberg and her colleagues did not stop at merely comparing differences in vulnerability to burnout between groups of parents. Going a step further, they also examined antecedents that might predict the occurrence of burnout among parents of children with special needs. Of all the factors they examined, parents' psychosocial and personality factors played a significant role in predicting burnout symptoms. For instance, parents might experience more symptoms when they had low social support, limited leisure time, and heightened financial concerns, perceived a greater impact of their child's disease on their family, and had low self-esteem and high need for control (especially for mothers). In contrast, their children's objective medical factors (e.g., duration of the disease) seemed to have little explanatory power in parents' burnout symptoms (Lindahl Norberg, 2010; Lindström, Åman, et al., 2011). Very recently, based on their prior findings, they designed and tested the efficacy of the first-ever group intervention program targeting parental burnout for parents of children with special needs. Despite some limitations (e.g., a small sample size and the lack of a control group), this study evidenced that interventions can be effective in countering parental burnout (Lindström et al., 2016).

Over three decades, these early studies provided crucial insights into parental burnout. First, they showed that burnout can also stem from the parenting context (Pelsma et al., 1989). Second, after Weiss (2002), Lindahl Norberg and her colleagues started systematic research on burnout symptoms of parents of children with special needs. These studies showed that these parents may experience more burnout symptoms than other parents (e.g., Lindahl Norberg, 2007). Lindahl Norberg and her colleagues took the literature a step further, not only discovering the antecedents to parental burnout (e.g., Lindström, Åman, et al., 2011) but also designing the very first intervention program targeting parental burnout (Lindström et al., 2016). These studies represent the pioneering phase of parental burnout research. Despite the crucial breakthroughs they made, these studies left open the following questions that may hinder the scope of parental burnout.

To begin with, these pioneering studies faced challenges in delineating experiences of parental burnout and assessing parental burnout. First, both Pelsma and colleagues (1989) and Weiss (2002) adapted the MBI to the parenting context, proposing that the tridimensional model of job burnout could also apply to parental burnout. However, their findings were inconsistent: while Weiss fully supported this adaptation with her concluding remarks, Pelsma and colleagues only provided partial support; it remains unclear whether the direct adaption of MBI may be used to assess parental burnout. Second, in their systematic research, Lindahl Norberg and her colleagues used SMBQ to assess parents' burnout symptoms. Because SMBQ is context-free, they could not ascertain the existence of "parental burnout"—that is, they could not be certain that the assessed symptoms stemmed from parental role/parenting context (Lindahl Norberg, 2007, p. 8). Overall, it remained uncertain

what burnout experiences “parental burnout” encompassed and how to assess it.

Moreover, these earliest studies sparked an interesting question: can parental burnout occur in the general population? While earliest studies seem to conclude that this was the case (Pelsma et al., 1989; Procaccini & Kiefaber, 1983), later studies found that children with special needs presented numerous challenges that made parents especially prone to burnout (e.g., Lindahl Norberg, 2007), thus leading some to suspect that parental burnout might be only relevant to parents under challenging situations. But this was unlikely to hold true; studies by Lindahl Norberg and her colleagues showed that burnout symptoms were more determined by parental psychosocial factors than by their children’s objective medical conditions (Lindahl Norberg, 2010; Lindström, Åman, et al., 2011). Such a finding implies that parental burnout may not only exist for parents of children with special needs, but could happen to anyone—for instance, those possessing risky psychosocial factors. Although likely, this remains unclear in parental burnout literature at this stage.

2.2 The Current Gold-Standard Conceptualization

These two questions bring us to two Belgian researchers—Isabelle Roskam and Moïra Mikolajczak—who attempted to answer the question: Can parental burnout occur in the general population? If so, what are its constitutive experiences? To answer these questions, they first defined parental burnout as a syndrome of chronic exposure to stress that stems from the parenting context (thus, parental burnout may occur in the general parent population). Second, they deduced parental burnout from job burnout, expecting the gold-standard tridimensional model of job burnout to apply to parental burnout. To validate their definition and deduction, they adapted the MBI to the parenting context and tested its psychometric performance in 379 parents from the community as a whole (Roskam et al., 2017). Their results aligned with those of Pelsma and colleagues (1989): they found that the depersonalization dimension did not fit well in the parenting context, suggesting that the job burnout model could not apply directly to parental burnout.

They did not rest there. After discussing the results with their colleagues, they quickly realized that parents could not dehumanize children in the way that burnt-out workers were capable of dehumanizing their customers or patients; what parents could do at most as to distance themselves from their children emotionally. Given this, they hypothesized that the depersonalization found in the work context might take the form of emotional distance in parents from their children in the parental context. They revised the measure by replacing depersonalization with a new dimension, “emotional distancing.” This revision eventually yielded the Parental Burnout Inventory (PBI), with robust reliability and validity that was tested on responses of 1,723 parents from general populations. Overall, this study supported the position that parental burnout may occur as a stress-related syndrome in parents from general populations and showed that the burnout experience stemming from parenting is not entirely identical to that from work (Roskam et al., 2017).

Although PBI has already shown sound psychometric performance, it remains unclear

whether the experiences captured by PBI are a comprehensive representation of parental burnout. Roskam et al. (2017) designed PBI through a deductive approach. They adapted it from the MBI that was initially developed for the work context, expecting that the tridimensional model of job burnout also applied to parental burnout. Such an approach based on an *a priori* hypothesis may ignore (hidden) crucial experiences of parental burnout; therefore, PBI runs the risk of being a suboptimal representation of parental burnout. This risk appears to be likely; as seen above, Roskam et al. have discovered that the depersonalization that is a dimension of job burnout does not apply to parental burnout and should be replaced by emotional distancing. To overcome this risk, Roskam and her colleagues launched inductive research, aiming to explore the best delineation of parental burnout and accordingly create a new measure to assess it.

This research project consisted of two studies. The first was conducted by Hubert and Aujoulat (2018), a study of in-depth interviews on the parental burnout experience of five burnout mothers (e.g., mothers who applied the terms “parental burnout” or “exhaustion” to denote their feelings of parenthood). The result of their interpretative phenomenological analysis showed that burnout mothers feel overengaged in their maternal role, extremely exhausted, and emotionally distanced from their children or disconnected from them (e.g., applying an autopilot mode to interact with their children). These feelings seem to be subordinated to the overarching theme of fear: burnout mothers fear not being good enough mothers and losing control. Moreover, when burnout mothers recall their suffering, they feel shame, loneliness, and guilt and experience a discontinuity of self (e.g., feeling alienated and disconnected when looking back to the time when they were exhausted). These rich testimonies allowed Roskam and colleagues (2018) to proceed in designing a measurement that best captures parental burnout—the second study of this project.

In this study, Roskam and colleagues (2018) designed a new measurement—the Parental Burnout Assessment (PBA)—according to the results of Hubert and Aujoulat (2018). The resulting PBA showed robust reliability and validity, tested on responses from 901 parents from general populations. The PBA has some similarities to the MBI (the gold-standard measurement for job burnout) and the PBI (deduced from MBI), but also some distinctive characteristics. Parental burnout experiences assessed by the PBA include (1) *extreme exhaustion*, (2) *emotional distancing from their children*—these two dimensions are included in both the PBI and the PBA—and (3) *having feelings of being fed up* and (4) *a perceived contrast with their previous parental self*—the PBA replaces the dimension of feeling ineffective in the PBI with these two dimensions. Together with Hubert and Aujoulat, Roskam and colleagues created the PBA from an inductive approach and consolidated the position that parental burnout is a syndrome consisting of four symptoms; this tetradimensional model of parental burnout is currently the gold-standard model of parental burnout (Mikolajczak et al., 2021).

Roskam and colleagues (2018) highlighted that parental burnout as an exhaustion syndrome may not only occur in parents under extreme circumstances, as PBA was validated using samples of parents from general populations. Moreover, parental burnout appears to be an exhaustion syndrome manifesting differently from job burnout; parental burnout manifests

through four core symptoms: intense exhaustion in the parenting role, emotional distancing from one's children, the feeling of being fed up with the parenting role, and the perception of contrast with their previous parental self. Such a unifying definition and delineation has set out solid ground for empirical systematic studies (Mikolajczak et al., 2021). Since the publication of the PBA in 2018, the parental burnout literature appears to have entered a new era; around 100 academic articles, books, book chapters, and dissertations had been published by October 2022 (searched for in the PsycINFO database by the term "parental burnout"). Such interest is not confined to scientific circles, either: "*over the last 5 years, [parental burnout] has been mentioned increasingly frequently in the popular press and on social networks*" (Mikolajczak et al., 2022).

According to the current state of the literature, I will summarize below what is known about parental burnout. To capture its essence, I decided to situate the literature on parental burnout within the broader literature on job burnout, since parental burnout originates from applying job burnout to the parenting context. First, some parental burnout researchers refer to existing knowledge about job burnout to think of possible research themes and explore relevant factors. Second, some of them may design their studies by considering pressing issues in job burnout research. The job burnout literature (flourishing since the 1980s) thus serves as a rich source which young parental burnout research (with systematic studies since 2007) can draw from and adapt. With this in mind, I will focus on introducing parental burnout literature while including the relevant job burnout literature to allow us to understand the core of how existing job burnout studies guide and fertilize the rationales and assumptions behind parental burnout studies.

3. The Existence of Parental Burnout

With the development of the PBI or the PBA, the conceptualization of parental burnout has delineated which experiences or symptoms fall under the syndrome of parental burnout (Hubert & Aujoulat, 2018; Roskam et al., 2017, 2018). To support the existence of parental burnout, researchers have gone a step further to examine the discriminant validity of parental burnout, that is, how parental burnout differs from other related constructs such as depression and job burnout.

For a start, in this agenda, parental burnout researchers run into the struggle with the question whether parental burnout differ from depression—characterized by depressed mood and loss of pleasure and interest (American Psychiatric Association, 2013). This concern arises because they appear similar from both the phenomenological and psychometric perspectives. First, from a phenomenological perspective, like people suffering from parental burnout, people suffering from depression may also have experiences such as fatigue (see Hubert & Aujoulat, 2018; Toker & Biron, 2012). Second, from a psychometric perspective, depression and parental burnout are often highly correlated (Szczygieł et al., 2020) and could be indistinguishable (the correlation could be as high as .60; see Szczygieł et al.). Given these two observations, researchers must test whether parental burnout differs from depression to

prove that parental burnout really exists and is not merely “old wine in a new bottle.”

Moreover, since parental burnout has roots in job burnout, parental burnout researchers must offer evidence to disentangle the association between job and parental burnout. On the one hand, parental burnout must be proximal to job burnout because parental burnout should share core definitional characteristics with job burnout (so that parental burnout can be called a form of “burnout”). On the other hand, parental burnout must be distinguishable from job burnout because parental burnout is supposed to be tied to the parenting context rather than the work context (see Roskam et al., 2017, p. 2). In short, to prove that parental burnout exists, researchers must not only offer evidence that parental burnout is distinct from depression, but also bring job burnout into the discussion and test whether parental burnout is both proximate to and distinct from job burnout.

In response to these needs, Mikolajczak and colleagues (2020) came forward, offering evidence for the discriminant validity of parental burnout. They collected two independent samples ($N_{total} = 3482$), and with this large dataset, they ran a series of model tests with confirmatory factor analysis to examine the interplay between depression, parental burnout, and job burnout. Their results first showed that parental and job burnout are indeed strongly associated (with a nearly strong effect size; r between latent variables = .46), thereby supporting the proximity of the two forms of burnout. Despite this, the confirmatory factor analyses could not converge in loading parental burnout and job burnout onto a single second-order latent variable (i.e., could not reduce two forms of burnout to one), thereby supporting the distinctiveness of the two forms of burnout.

Mikolajczak and colleagues (2020) further included depression in the interplay. Their findings showed that while both forms of burnout are related to depression, all three are psychometrically distinguishable. Specifically, parental burnout, job burnout, and depression as latent variables are correlated, but they are distinct and irreducible to a single latent variable. This finding echoes the view in job burnout literature (among some researchers): while burnout captures experiences in specific contexts, depression depicts general and context-free experiences (Maslach & Leiter, 2016, p. 108); evidence in support of this view has been found (Bakker et al., 2000; Tavella & Parker, 2020). Altogether, parental and job burnout are distinguishable as different forms of burnout, and both forms are distinguishable from depression; parental burnout may indeed exist.

4. The Repercussions of Parental Burnout

Suppose parental burnout exists; why bother with it? The existence of parental burnout has been shown to have serious harmful effects. First, research has shown that parental burnout predicts health-related consequences for parents, such as somatic complaints (Sarrionandia-Pena, 2019), escape and suicidal thoughts, addictions and sleep problems, and below-average sleep quality/efficiency (Mikolajczak, Brianda, et al., 2018a). Recent studies have shown that parental burnout can be so severe that it is associated with medical conditions. Brianda, Roskam, and Mikolajczak (2020) pioneered this line of inquiry by showing that parents who suffered from parental burnout had higher hair cortisol

concentrations in a 3-cm long strand (HCC; retrospective assessment of average cortisol levels over three months) compared with matched control parents. What makes their findings so concerning is that burnout parents' mean HCC even exceeded the normal upper limit for cortisol levels. This result implies that parental burnout may induce hypercortisolism, further sabotaging the subject's physical health (e.g., diabetes and hypertension; see introduction of Chiodini et al., 2019). These findings demonstrate the central role that parental burnout plays in parents' health.

In addition to the health consequences, parental burnout also affects the concerned family. First, burnout parents may have more conflicts with their partners and feel more alienated from their partners. Second, burnout parents may be more prone to committing child maltreatment, such as parental neglect and violence (Mikolajczak, Brianda, et al., 2018a). The effects of parental burnout on child maltreatment appear to be particularly robust; such effects have been demonstrated in cross-lagged longitudinal studies (Mikolajczak et al., 2019) and experimental design studies (Brianda, Roskam, Gross, et al., 2020). These findings have important implications for children's welfare, since previous studies have indicated that child maltreatment compromises children's social-emotional, personality, and biological development (Cicchetti, 2016). Indeed, a recent longitudinal study found that more severe parental burnout symptoms of parents can predict more depression and anxiety symptoms in their children two months later (B. Yang et al., 2021). Overall, parental burnout may adversely affect not only the parents' own health and their relationship with their partners but also their children's development.

The effects of parental burnout (versus that of related constructs such as job burnout) on the family appear uniquely potent. First, Mikolajczak, Brianda, and colleagues (2018a) demonstrated that compared to job burnout, parental burnout has a significantly greater association with family-related consequences such as conflicts of couples, partner estrangement, and with child maltreatment (to greater extent). Second, Szczygieł and colleagues (2020) showed that job burnout could not predict child maltreatment when the effects of parental burnout were controlled for. Mikolajczak and colleagues (2020) elaborated on these findings: after controlling for one another's effects, they showed that whereas job burnout significantly predicted specific outcomes in the job context, such as turnover intention, parental burnout significantly predicted outcomes in the family context, like child maltreatment. There was rarely any crossover between the two forms of burnout in terms of outcomes in the other context (the only exception being that parental burnout may predict job satisfaction). This finding suggests that both forms of burnout uniquely predict outcomes specific to their contextualized contexts, namely work and family contexts.

5. The Etiology of Parental Burnout

Should we accept that parental burnout is real and costly, we may further ask why parental burnout can occur at all. In conceptualizing parental burnout, Roskam and colleagues have already defined that parental burnout occurs in response to chronic exposure to stress in the

parenting context (see Roskam et al., 2017, 2018). This definition was supported by Brianda, Roskam, and Mikolajczak (2020). They showed that with the effect of other variables (such as job burnout) controlled for, more severe parental burnout significantly predicts a higher HCC in a 3-cm long hair strand. Since the HCC of a 3-cm long hair strand is considered a biological indicator of three-month chronic stress (see Russell et al., 2012), Brianda, Roskam, and Mikolajczak's findings imply that parental burnout is associated with a three-month chronic stress experience for parents.

Mikolajczak and Roskam (2018) delineated the balance of risks and resources (BR²) theory of parental burnout to elaborate on such chronic stress experiences that may lead to parental burnout. This model was adapted from the Job Demands-Resources (JD-R) model identified in the work context (Bakker et al., 2014; Bakker & Demerouti, 2017). The JD-R model proposes that all working conditions can be classified as either demands or resources. While *demands* refer to aspects of the work that require sustained physical and psychological effort or skills, *resources* refer to potentially functional aspects of the work for achieving work goals; when “*job demands are high and when job resources are limited,*” burnout occurs “*because such negative working conditions lead to energy depletion and undermine employees’ motivation, respectively*” (Demerouti et al., 2001, p. 499).

Borrowing the tenets of the JD-R model, Mikolajczak and Roskam (2018) delineated the BR² theory of parental burnout. Theoretically, they suggested that parental burnout stems from exposure to chronic stress manifested by a chronic imbalance between risks and resources in the parenting context. Such a balance is like a seesaw: at one end are risk factors that aggravate feelings of stress and increase the vulnerability to parental burnout; at the other are resource factors to alleviate feelings of stress, counterbalance the seesaw, and decrease vulnerability to parental burnout. In this sense, parental burnout eventually occurs when the seesaw chronically tilts to the negative side—when parents chronically lack sufficient resources to counteract the damage of risk factors, or in other words, when parents are chronically exposed to parenting stress.

Empirically, Mikolajczak and Roskam (2018) operationalized this model with the following two presumptions. First, all parenting conditions—relevant antecedent factors—are bipolar: that is, they may serve as resources on one pole but turn into risks on the other. Second, these factors weigh differently at both person-centered (i.e., individual parents are in different situations in terms of the same factors) and factor-centered (i.e., factors differ in their effects on parents) levels; the weighted sum of factors represents an individual parent's vulnerability to parental burnout. Given these presumptions, a BR² measurement was created. This measurement took the form of bipolar items with collections of items indicating different factors, item numbers representing the factor-centered weight, and item scales representing the person-centered weight. The arithmetic sum of questionnaire responses reflected individual parents' vulnerability to parental burnout.

Mikolajczak and Roskam (2018) conducted a two-wave longitudinal study with a six-month interval, collecting responses from 923 parents. The findings were that, first, the sum of BR² responses predicted parental burnout six months later; second, although the BR² can

predict job burnout, its association with parental burnout is significantly higher than that with job burnout, thereby further suggesting the specificity of BR² vis-à-vis parental burnout. These findings support the BR² model that chronic stress, manifested as an imbalance between risks and resources—indicated by the arithmetic sum of BR² questionnaire responses—places parents at risk for burnout. Recently, Roskam and Mikolajczak (2021) added that such risk might develop as a process: parents might first experience emotional exhaustion that spreads further and activates other parental burnout symptoms (also see Kalkan et al., 2022).

5.1 Theoretical Implications: Antecedent Factors

The BR² model offers a theoretical tenet that antecedent factors differ in their effects on parental burnout. Notably, this model theoretically qualifies numerous antecedent factors and evaluates their weights in predicting parental burnout. This effort provides a solid basis for researchers to select factors to investigate further. Since the publication of the BR² model, numerous studies have come out, significantly expanding knowledge on each group of antecedent factors (in fact, this topic accounts for a quarter of all subsequent studies; Mikolajczak et al., 2020, p. 673, also see id., 2022). Below I review these advanced studies and summarize them according to the factors appearing in the BR² model. Such factors can be further grouped into sociodemographic factors, factors related to stable traits or abilities of parents, factors related to family-level functioning, factors related to social networks, factors related to parenting, and life events.

First, regarding sociodemographic factors, studies have demonstrated that parents may experience more parental burnout symptoms when they are younger, working part-time or unemployed, or under more financial strain (Kawamoto et al., 2018; Le Vigouroux et al., 2022; Le Vigouroux & Scola, 2018; Lindström, Åman, et al., 2011; Mikolajczak, Raes, et al., 2018; Sorkkila & Aunola, 2020). As regards parents' gender, Roskam and Mikolajczak (2020a) systematically examined gender differences in parental burnout; they showed that while mothers experience more burnout symptoms, fathers appear more vulnerable to parenting imbalance, and thus develop burnout more easily and incur more severe consequences from parental burnout. However, research has found that when the effects of other factors (such as those listed below) are controlled for, sociodemographic factors contribute limitedly to parental burnout (e.g., around 3% of parental burnout variance; Mikolajczak, Raes, et al., 2018).

Like parents' sociodemographic factors, studies have shown that children's characteristics may be important for parental burnout, but they usually contribute little to it after controlling for other factors. For example, research suggests that parents experience more burnout symptoms when their children are younger (Szczygiel et al., 2020) and more neurotic (Le Vigouroux & Scola, 2018). Additionally, parents of children with special needs are more likely to experience burnout (e.g., Lindahl Norberg, 2007), especially if they care for more than one child with special needs or a child with multiple issues, such as severe diseases or

comorbid problems (Gérain & Zech, 2018). However, the effects of child characteristics on parental burnout are relatively small compared to other factors. For instance, Mikolajczak, Raes, et al. (2018) found that the child's particularities explain less than 1% of parental burnout variance.

Second, stable traits or abilities of the parent appear to be a potent factor in predicting parental burnout. Research has shown that parents experiencing more burnout symptoms are usually more perfectionistic (high self-standards accompanied by harsh self-criticism or perceived high standards from others; particularly the latter; Sorkkila & Aunola, 2020), and more neurotic (Le Vigouroux et al., 2017; Szczygieł et al., 2020); tend to use unhelpful coping strategies such as using alcohol (in cross-sectional dataset; Skjerdingsstad et al., 2021); have lower self-esteem and require a high degree of control (Lindström, Åman, et al., 2011); and have lower intrapersonal emotional competence (ability to identify, express, understand, regulate, and use one's own emotions) and higher interpersonal emotional competence (ability to identify, express, understand, regulate, and use others' emotions; Bayot et al., 2020). A composite of parents' stable traits explains 22% of parental burnout variance (Mikolajczak, Raes, et al., 2018).

Third, family-level functioning plays another crucial role in parental burnout. These factors are events and processes involving all family members (or some of the family members, e.g., a dyad of parents; see Kerig, 2019). At a between-parent level, recent research has shown that parents experiencing fewer parental burnout symptoms may have better marital satisfaction with their partner (Szczygieł et al., 2020) or have a partner who is more available to help (Lebert-Charron et al., 2022). Research has also shown that cooperative coparenting between parents—characterized by, for instance, exposure to less conflicts and endorsement of the partner's parenting—may predict fewer burnout symptoms in individual parents (Favez et al., 2022). On a whole-family level, studies have also found that a less organized (e.g., more chaotic, busy, and noisy) family is associated with more parental burnout symptoms that parents within the family may experience (Mikolajczak, Raes, et al., 2018). Overall, family-level functioning—for example, a composite of coparenting relationship and family organization—explains 29% of parental burnout variance (Mikolajczak, Raes, et al.).

Fourth, parents' broader social network—e.g., outside the family—appears to play a role in predicting parental burnout. Of the factors derived from the social network, social support—people's perceived support from their social network—has long received attention (e.g., Weiss, 2002). Lindström et al. (2011) have shown that receiving more practical help from their relatives and friends is associated with parents of children with special needs experiencing fewer burnout symptoms. Ardic (2020) recently derived similar findings for parents of children with autism spectrum disorder; the fewer burnout symptoms parents experience, the more accessible and satisfactory the support they are likely to have. Yamoah and Brown's (2022) qualitative study elaborated and demonstrated that when parents of children with complex medical conditions receive satisfactory social support, they feel connected and feel that their exhaustion is understood. These positive feelings further alleviate their experiences of parental burnout. Social support also benefits parents from

general populations: Szczygieł and colleagues (2020) showed that social support correlated negatively with parental burnout with a medium to strong effect size.

Fifth, parenting has been identified as a crucial group of factors that predict parental burnout. Parenting as a group of factors includes not only parenting practices but also parenting cognitions (Bornstein, 2015). Parenting practices refer to behaviors and activities that parents implement in their parenting. Recent research has shown that the more parental burnout symptoms parents experience, the less positive parenting strategies (Mikolajczak, Raes, et al., 2018) and the more overprotective parenting (Zimmermann et al., 2022) they are likely to adopt or endorse. Mikkonen and colleagues (2022) also demonstrated that, as opposed to other parenting styles, parental burnout symptoms appear to be particularly positively related to the authoritarian parenting style, in which parents express less warmth towards their children and demand more of them. Research has also uncovered a critical role of parental emotion regulation (i.e., the emotion regulation that parents use in situations with their children): parents experiencing more burnout symptoms tend to adopt rumination and distraction and use cognitive reappraisal less to cope with adverse situations (Vertsberger et al., 2022).

Parenting cognitions refer to parents' mentation about parenthood (e.g., about parenting, about childhood, and about their children). Research has shown that stronger negative beliefs about adolescence (e.g., believing adolescents are rebellious; Zimmermann et al., 2022), worse self-efficacy in their parental role (Matias et al., 2020) and higher discrepancies between their actual and ideal parental selves (Roskam, Philippot, et al., 2021) are correlated with more parental burnout symptoms. Moreover, Kawamoto and colleagues (2018) were the first to show that just as workers who ask for perfection and overengage in their work may eventually burn out (Stoeber & Damian, 2016), parents who endorse parenting perfectionism, for example by setting high standards and being excessively concerned about mistakes in parenting may also be at higher risk of parental burnout³. Overall, compared to all other factors, this group of factors—a composite of parenting cognition and practices—explained the most parental burnout variance (i.e., 45%; Mikolajczak, Raes, et al., 2018).

Finally, the earliest studies suggested life events as a group of factors that barely contributed to parental burnout (see review in Mikolajczak & Roskam, 2018); yet recent studies have demonstrated that some of these factors might serve as major stressors that spur other stressors such as other crucial factors listed above, putting parents at risk of burnout. The COVID-19 pandemic appears to be one such factor. Kerr, Fanning, and colleagues (2021)

³ In prior studies, parenting perfectionism was not explicitly defined as a construct of parenting cognition. Instead, researchers defined it as perfectionism contextualized within the parenting domain. Considering perfectionism as a trait or disposition that encompasses both cognitive and behavioral aspects, it would be reasonable to assume that parenting perfectionism should involve not only cognitive but also behavioral components (see Chapter 2). I chose to discuss the study by Kawamoto and colleagues (2018) under the topic of parenting cognition because their items used to assess parenting perfectionism appeared to primarily capture cognitive aspects (e.g., "Regarding parenting, I think it is better for me to have higher goals").

have shown that even when controlling for the effects of sociodemographic factors, depression, and anxiety, the perceived impact of COVID-19 still significantly predicts parental burnout symptoms. The significant impact of the COVID-19 pandemic is probably because it served as a major stressor: the related lockdown measures may activate other stressors such as limiting parents' access to support or other parenting resources, ultimately exacerbating parenting stress and parental burnout (related studies see Aguiar et al., 2021; May et al., 2021; Skjerdingsstad et al., 2021). Overall, the effect of life events on parental burnout appears to vary with the characteristics of those events.

In summary, previous studies have identified over 25 variables that could potentially contribute to parental burnout and have empirically revealed their associations (Mikolajczak et al., 2022). However, despite their contributions, a pitfall in their research design remains. Most studies rely on cross-sectional correlation research to explore the predictive effects of these antecedent factors with parental burnout, which leaves open questions regarding causality or even the direction of the association. This is critical, because many of the factors identified may not only predict parental burnout but also be predicted by it. For example, studies have shown that parental burnout is associated with parents implementing less positive parenting strategies (Mikolajczak, Raes, et al., 2018). While it is plausible that less positive parenting causes parental burnout, it is also possible that the reverse is true, with burnt-out parents too exhausted to express warmth and love in their parenting—a critical pillar of positive parenting (see Dupont et al., 2022). Future studies could benefit from exploring such causal effects using longitudinal and experimental designs.

5.2 Practical Implications: Intervention Programs

As it stands, the BR² model clarifies a precise etiological mechanism for parental burnout. This clarification has a practical implication: practitioners can mitigate parental burnout by helping parents reduce their risk factors and/or increase their resources (Mikolajczak & Roskam, 2018). Practitioners can identify the factors that predispose individual parents to parental burnout and provide appropriate interventions that target those factors, increasing individual parents' resource factors or reducing risk factors. Through such an intervention, practitioners may rebalance the sum of parental antecedent factors to tilt toward resources, thereby mitigating burnout symptoms and preventing parents from lingering in parental burnout. However, such implications and promising possibilities require an intervention study to validate them. Brianda, Roskam, Gross, and colleagues (2020) undertook this crucial effort, offering intervention programs for parents suffering from parental burnout.

Following the tenets of the BR² model (Mikolajczak & Roskam, 2018), Brianda, Roskam, Gross, and colleagues (2020) first designed a “directive intervention” with the goal of rebalancing risks and resources in the parenting context. Psychologists were trained to lead the program, providing parents with psychoeducation and exercises that focused on known risk/resource factors for parental burnout. They designed an alternative program, “non-directive intervention,” with the goal of providing parents with a platform where they could share their feelings and difficulties. Psychologists would be trained to listen to participants

actively, empathetically and authentically (Lambert & Barley, 2001) and lead the program to facilitate participants to “share, perceive themselves as fundamentally worthy of consideration regardless of their difficulties, and believe in their capacity to find their own path and resources” (Brianda, Roskam, Gross, et al., 2020, p. 330). Both programs (eight weekly two-hour sessions) were group-based so that parents would feel connected; this design element was crucial, because burnout parents often feel isolated or unsupported (see Hubert & Aujoulat, 2018; Yamoah & Brown, 2022).

To test the effectiveness of the programs, Brianda, Roskam, Gross, and colleagues (2020) conducted a study in which 142 parents were recruited and randomly assigned to directive or non-directive intervention program groups. They adopted a multi-method approach to assess parent burnout, including self-report and informant-report measurements (i.e., parental burnout symptoms) and biological measurements (indicated by hair cortisol concentration in 3-cm long strand; Brianda, Roskam, & Mikolajczak, 2020). Some groups of parents were scheduled to participate in the intervention later but provided additional data before the start of their intervention; their data showed that parental burnout appears to remain stable without intervention. Once parents had received either intervention, parental burnout decreased significantly; this improvement was maintained even three months after the intervention (confirmed in both self-report and informant-report data). Parental cortisol was also significantly lower three months after the intervention. Finally, a comparison of the two intervention programs showed that their effectiveness was nevertheless largely comparable, showing the effectiveness of both intervention programs targeting parental burnout, whether designed specifically based on the BR² model or not.

6. Western Parents’ Higher Vulnerability to Parental Burnout

Based on the BR² model, we may expect that parents of different cultures may have different parenting imbalances, making them differently vulnerable to parental burnout. This forms a central research objective of the International Investigation of Parental Burnout (IIPB) consortium. Launched in 2017, the consortium now consists of more than 100 researchers in more than 42 countries. Before investigating the cross-cultural variation of parental burnout worldwide, they first explored whether the parental burnout experiences captured by the gold-standard PBA (Roskam et al., 2018) also apply to other cultural or linguistic settings (see Putnick & Bornstein, 2016). To explore that, IIPB researchers translated the PBA into more than 20 languages and tested its psychometric performance. Overall, their results showed that despite the study samples’ very different cultures/native languages, the PBA has comparably sound reliability and validity (see Aunola et al., 2020; Roskam & Mikolajczak, 2020b; Sarrionandia & Aliri, 2021; also see an independent study by Cheng et al., 2020). This finding implies that the subjective experience captured by the PBA may apply to different cultural settings.

Roskam, Aguiar, and colleagues (2021) went one step further and collected a sample of 17,409 parents with PBA responses from 42 countries (members of the IIPB consortium).

They sought a systematic comparison across countries of the severity of parental burnout, indicated by its point prevalence and mean score. Because they used 21 language versions of the PBA in this study, the authors first checked the linguistic equivalence of these language versions to confirm whether they could compare parental burnout at the same scale level (Putnick & Bornstein, 2016). Their findings confirmed that the pattern of free and fixed loadings on the latent variables, factor loadings on the latent variables, the intercepts of the underlying items, and even the residuals were similar in as many as 21 languages, supporting the linguistic equivalence of all versions of the PBA. This preliminary analysis and results allowed them to compare the severity of parental burnout based on the raw scores from different language versions of the PBA.

Regarding point prevalence, Roskam, Aguiar, and colleagues (2021) used two cutoff PBA scores to estimate the number of parents suffering from parental burnout at the time of the survey: the score had to be equal to or greater than 92 or 86. The choice of the former score was based on heuristic justification: it meant that parents experienced all 23 parental burnout symptoms at least once a week or at least 16 symptoms daily. The latter was based on a preregistered multi-method and multi-informant analysis strategy (Brianda et al., 2023). Using either cutoff score, the results showed that prevalence varied widely between countries; this was true even when sample size or gender imbalance in each country's sample was controlled for. Such differences mirrored average parental burnout across countries: there was a 33-point difference between the country with the lowest (Thailand) and the country with the highest (Poland). Overall, these findings showed that Western (versus non-Western) parents were much more vulnerable to parental burnout, implying that culture may play a role in parental burnout.

In this seminal study, Roskam, Aguiar, and colleagues (2021) shed crucial light on the relationship between mean parental burnout score and culture across countries. They adopted Hofstede's (2001) framework and its six broad cultural indicators (i.e., power distance, individualism, masculinity, uncertainty avoidance, long-term orientation, and indulgence) to summarize the cultural values prevailing in each country. Their results showed that of all cultural values, only individualism—expecting individuals to take care of only themselves and their immediate families—significantly predicted mean parental burnout scores across countries. This effect held even after controlling for sociodemographic variables, parental workload, and economic inequalities in the samples across countries. Taken together, the findings of this study suggested that parental burnout may occur anywhere in the world and manifest itself in similar experiences or symptoms (given the equivalence and validity of the PBA across countries and languages; Mikolajczak & Roskam, 2020). Nevertheless, parental burnout seems of particular relevance for parents living in Western societies. And this association may stem from the individualism prevalent in those societies⁴.

⁴ Recent studies have revealed inconsistent findings regarding the association of individualism with parental burnout, which appears to be a case of Simpson's paradox: disparate associations between the variables of interest may appear at different levels of analysis (see Bandyopadhyay et al., 2015). While Roskam, Aguiar, and colleagues (2021) found a positive relation between individualism assessed at the country level and

Roskam, Aguiar, and colleagues' (2021) findings showed that individualistic culture values prevalent in a given country place parents in that country at significant risk for parental burnout⁵. Recently, Lin and Szczygiel (2022a; included in Appendix A) complemented this study by examining the association of individual parental burnout symptoms with individualism indicated by personal individualistic values (Oishi et al., 1998; Sandy et al., 2017; Schwartz, 1992). This study analyzed a survey dataset of 643 parents residing in Poland. Poland's culture is rated as average on individualism (with an individualism score of 60 out of 100; Hofstede, 2001), so there may be some variance in individualistic values between

parental burnout assessed at the individual level, Roskam and colleagues (2023) demonstrated a negative relation between individualism when both were assessed at the individual level.

A factor contributing to this paradox is the measurement employed by Roskam and colleagues (2023) to assess individualism at the individual level: Singelis's independent self-construal (Singelis, 1994). As highlighted in the preliminary analyses of Roskam and colleagues, there is insufficient evidence to support the measurement invariance of the measure across languages (and they believe it demonstrates partial metric invariance). This result echoes prior studies indicating the lack of a consistent factor structure for Singelis's independent self-construal measure across samples from different cultures (see Cross et al., 2011). Prior studies have found that, for instance, in samples from the US, independent self-construal encompasses four distinct dimensions (Hardin et al., 2004), while in samples from Thailand, the factor structure of self-construal remains inconclusive (Christopher et al., 2012). When a study involves participants from diverse cultures, a measure lacking measurement invariance can obscure any observed association, introducing potential bias into the associations of independent self-construal with other variables (see Putnick & Bornstein, 2016).

Given this, it is crucial to approach the findings of Roskam and colleagues (2023) with caution and to refrain from drawing definitive conclusions regarding the association between individual-level individualism (independent self-construal) and parental burnout. Future studies should replicate these findings while employing culturally sensitive and measurement-invariant assessments of individual-level individualism to gain a more comprehensive understanding of the relationship.

⁵ Roskam and colleagues (2023) have provided valuable insights into how individualism at the country level may contribute to parental burnout. Firstly, parents in individualistic countries often perceive a larger gap between the socially expected parental role and their own sense of self as parents. This might suggest that these parents internalize societal standards of parenting and strive to align their caregiving practices with these expectations, efforts that might exhaust parents. Secondly, these parents may place significant importance on their parenting and their children's performance, considering them as their sole personal achievements. Consequently, they tend to shoulder these pressures alone, without sharing parental responsibilities; this lack of shared responsibility, as highlighted by Roskam and colleagues, increases the risk of parental burnout. Thirdly, parents in individualistic countries prioritize agency and self-directed socialization goals, which require them to justify their requests to their children rather than relying on direct imposition. This additional burden of justifying and negotiating adds to parental stress and contributes to burnout.

In addition to those addressed by Roskam and colleagues (2023), Hays (1996) suggests another potential reason why individualism may predispose parents to burnout. In individualistic cultures, there is an expectation for people to pursue personal success and achievement in their own work lives. However, recent developments in Western parenting culture also demand parents, particularly mothers, to invest substantial effort and time in caregiving responsibilities. The competing demands from both work and family domains create a paradox that might exhaust parents and contribute to parental burnout: with limited time and energy available, parents may struggle to meet the expectations of both domains, leading to increased stress and an elevated risk of burnout.

individuals in Poland. Their results bring nuances to the association of individualism with parental burnout: individual parents experienced more burnout symptoms when they prioritized the individualistic values of dominance over people and resources (i.e., power) and personal success (i.e., achievement); they had fewer symptoms when they prioritized the collectivistic values of protection and enhancement of the welfare of other people (i.e., benevolence).

6. Concluding Remarks

She burn'd with love, as straw with fire flameth

She burn'd out love, as soon as straw outburneth

--*The Passionate Pilgrim* by William Shakespeare

Shakespeare's burnout metaphor describes how love eventually burns lovers out in a romantic relationship, just as fire burns straw out. Over the past four decades, this metaphor has applied to modern people's relationship with their work. People may initially be enthusiastic and (over-)committed to their work, but work may eventually exhaust them, just as fire burns a candle out (see Schaufeli et al., 2009). In more recent years, reports have accumulated suggesting that this metaphor is an accurate description of many of today's parents. Parents report that they were initially enthusiastic about childrearing, but end up feeling swamped by the burdens of parenting (see Hubert & Aujoulat, 2018). Such a phenomenon is called "parental burnout" (see Mikolajczak et al., 2021).

Systematic research on parental burnout started in 2007, when Lindahl Norberg (2007) began to examine parental burnout among parents of children with special needs. Since then, the literature on parental burnout has proliferated, especially in the past five years (Mikolajczak et al., 2022). Researchers have designed gold-standard models to delineate the symptoms of parental burnout (Roskam et al., 2017, 2018). They have also verified the existence of parental burnout by showing how it is associated with related constructs such as job burnout and depression, but remains distinguishable from them (Mikolajczak et al., 2020). What warrants attention is that researchers have consistently shown that parental burnout endangers not only parents' health (e.g., suicidal ideation; Mikolajczak et al., 2019) but also that of their children (e.g., depression; B. Yang et al., 2021).

Researchers have gone on to explore why parents may suffer from parental burnout. They have explored this question at the individual level. To begin with, they proposed the BR² theory of parental burnout, which suggests that parental burnout results from chronic stress manifested by a chronic imbalance of risk versus resource factors in the parenting context (Mikolajczak & Roskam, 2018). Since then, numerous articles have enriched knowledge about risk/resource factors that individual parents might possess in their daily parenting lives (see Mikolajczak et al., 2022). According to the latest literature, such theoretical antecedents include sociodemographic factors, child characteristics, stable traits or abilities of the parent, family-level functioning, parents' broader social network, parents' parenting, and even life

events.

Finally, researchers have also noted that Western parents seem to be more vulnerable to parental burnout and have explored a cultural explanation. Roskam, Aguiar, and colleagues (2021) showed the significant association of individualism with more severe parental burnout across countries. Lin and Szczygieł (2022a) elaborated that between individuals, parents experience more burnout symptoms when their emphasis is on the individualistic values of power and achievement rather than on collectivistic values such as benevolences. Is this a complete explanation of why Western parents being more susceptible to parental burnout? This is the main research question of this thesis, which aims to supplement this account of the causal factors behind parental burnout.

Chapter 2 Linking Modern Parenting Culture to Parental Burnout

Linking Modern Parenting Culture to Parental Burnout

Chapter 1 summarizes what we know so far about parental burnout. Parental burnout is an affective syndrome that manifests as intense exhaustion in one's parental role, emotional distance from one's children, feelings of being fed up with the parental role, and a perceived contrast between past and present about how one feels about parenting (Roskam et al., 2018). Such a syndrome develops when parents experience chronic parenting stress, indicated by a chronic imbalance of risk versus resource factors in the parenting context (Mikolajczak & Roskam, 2018). Parental burnout warrants attention because it jeopardizes not only the health of parents themselves (e.g., suicidal ideation; Mikolajczak et al., 2019) but also that of their children (e.g., depression; B. Yang et al., 2021). Who is vulnerable to parental burnout? Roskam, Aguiar, and colleagues (2021) broke new ground by showing that Western parents seem especially susceptible to parental burnout, revealing the operative role of culture. They went a step further and showed that individualism (defined by Hofstede, 2001), a culture predominant in Western countries (Cortois & Laermans, 2018), could explain that increased vulnerability.

This groundbreaking study is certainly not without criticism—mainly regarding how its authors assessed individualism, that is, by applying Hofstede's framework. Hofstede (2001) operationalized individualism with indicators of a country's propensity (i.e., the average score of a country's sample) to value personal time, freedom (in work), and (work) accomplishment. This is an incomplete (and inaccurate for some researchers) operationalization, a drawback that has already led to much criticism (Beugelsdijk & Welzel, 2018; Brewer & Venaik, 2011; Oyserman, Coon, et al., 2002). Individualism is a complex cultural package that includes not only components such as personal free will or achievement—captured in Hofstede's operationalization—but also many others, for instance, responsibility (Henrich, 2020; Realo et al., 2002; Sampson, 1988; Waterman, 1981). This pitfall of Hofstede's framework raises questions about the study by Roskam, Aguiar, and colleagues (2021): it remains unclear whether individualism (as a whole, including components overlooked by Hofstede) may explain Western parents' heightened burnout vulnerability. Not only is it too early to conclude that "individualism" is a core component of Western culture that causes parental burnout, but the criticism has also been made that imposing a supra-construct "individualism" obscures a proper understanding (Bond, 2002).

To enrich our understanding of cultural effects on parental burnout, this thesis follows up on the seminal study by Roskam, Aguiar, and colleagues (2021) with a different approach. I have categorized the approach of Roskam, Aguiar, and colleagues as inductive. They utilized Hofstede's (2001) existing framework to explore the association of Hofstede's cultural indicators with parental burnout across countries, revealed that Hofstede's individualism predicts higher vulnerability to parental burnout, and explained that individualism is the

cultural antecedent that makes Western parents prone to burnout. While such a framework-based approach provides crucial insights, it introduces the flaws of the adopted frameworks (as seen above) into the study. Thus even if Hofstede's framework is replaced by others, such as the World Values Survey (Haerpfer et al., 2022), the flaws embedded in this alternative framework (see Beugelsdijk & Welzel, 2018) may cloud our interpretation of the findings. This thesis seeks to complement the study of Roskam, Aguiar, and colleagues (2021) by releasing investigation of this subject from the constraint of imposed frameworks; a deductive approach is adopted, with factors from a review of Western parenting culture being explored to account for Westerners' increased vulnerability to parental burnout.

How can we make this deductive exploration of culture? Culture is an elusive puzzle with numerous definitions (S. Harkness et al., 2015; S. Harkness, 2023; S. Harkness & Super, 2002; Keller et al., 2006). Despite this, most researchers agree that culture encompasses beliefs, conventions, and meanings shared by a community of people (S. Harkness & Super, 2021; Lehman et al., 2004; Markus & Hamedani, 2019); these manifestations can be associated with one another to constitute cultural packages such as individualism (Henrich, 2020)⁶. The existence and predominance of a given culture or cultural package relies on the support of specific environmental conditions (see Keller, 2018, 2020; Super & Harkness, 1999) that indicate/differentiate distinct socio-ecological settings with their unique socio-historical background (J. G. Lu et al., 2023; Super & Harkness, 1986). Given this, this thesis conducts a deductive exploration; I review the socio-historical roots of parental burnout—namely, causes stemming from the socio-historical background or related socioecological changes—and identify characteristics of today's Western parenting culture that may cause burnout, thus forming my research hypotheses. I then compile empirical studies to evaluate these hypotheses.

1. Western Parenting Culture and Parental Burnout

To define the scope of my review, I consulted existing insights into the socio-historical roots of job burnout. Job burnout has been long indicated as a cultural notion: “[*Job*] burnout

⁶ Under this definition, culture is a construct at the community level, distinguishing between various communities. Culture may predispose individuals within that culture to a particular tendency. For instance, researchers have suggested that individuals living in individualistic countries may develop and cultivate an independent self-construal—perceiving oneself as fundamentally independent and separate from others (Markus & Kitayama, 1991). Cross and colleagues illustrate the distinction between individualism at the group/country level and independent self-construal at the individual level, using a compelling analogy: “Sports analogies are helpful in understanding this distinction. We might refer to a football team as having a good defense, whereas we describe the individual members of the defense as quick, agile, and athletic. Without these individual traits of quickness, agility, and athleticism, the team could not have a strong defense, just as a culture can not be individualistic if the majority of its members are not independent. Similarly, the individual members of the football team vary in the degree to which they possess these traits, just as individuals within a culture vary in the degree to which they espouse an independent versus interdependent self-construal” (Cross et al., 2011, p. 143).

did not develop in a historical vacuum; in addition to a subjective experience, it is also a multi-faceted socio-cultural phenomenon” (Schaufeli, 2017, p. 106). This consultation received support from Roskam and colleagues (2017, p. 3); they indicated that the socio-historical changes in modern parenting are much like those in today’s human service occupations. *“While the job burnout wave hit the USA in the 70s, the parental burnout wave hit Europe in the 2000s. Interestingly, the socio-cultural changes that occurred in the parenting domain in the 90s in Europe seemed to mirror the changes in the human services work domain in the USA in the 60s.”* Just as these changes may have caused job burnout, the similar changes in parenting may also have put Western parents at risk for burnout. Below, I first review the socio-historical roots of job burnout.

1.1 A Lesson from Job Burnout

One such socio-historical root is modernization (and the corollary sociocultural changes)—the transition of a society from “traditional” to “modern”, characterized by the expansion of the economy (capitalism), the spread of democracy, and the flowering of globalization (Hegeman, 1999; Inglehart & Welzel, 2007). According to the modernization theory, this transition embodies itself as a package of general cultural changes, including the increase of individualism (Greenfield, 2016) and the demise of traditions (such as secularization or rationalization; Giddens, 1994), and cultural changes in specific contexts, such as the dominance of bureaucracy in organizations (such as a division of labor, a hierarchy of authority, or clearly-prescribed rules and skills; Hall, 1968; Hummel & Stivers, 2010; M. W. Meyer & Brown, 1977). As seen below, their interplay of these changes shapes a unique work culture that erodes work resources and accumulates work risks, pressuring employees, providing a recipe for job burnout (Bakker et al., 2014) and making burnout very salient in postmodern societies (Schaufeli et al., 2009).

First, individualism affects solidarity at work. Driven by such a cultural package, employees now cultivate a competitive and narcissistic personality, becoming self-absorbed, having an inflated sense of their own importance, striving for self-enhancement that can be seen and felt by others, and possessing a deep need for excessive admiration (Henrich, 2020; Lasch, 2018; Nowak et al., 2022; Roberts & Robins, 2000). Moreover, they strive to attain personal achievements and compete with others, rely on themselves, and show less concern or care for distant others such as their colleagues (Oishi et al., 1998; also see L.-Q. Yang et al., 2012). Probably because of these things, they find it more challenging to ask for help from colleagues or even just get along with others. Overall, these factors and behavior patterns resulting from individualism erode solidarity and support among employees, decreasing the resources that employees have in their work and thereby predisposing them to burnout (Schaufeli & Buunk, 2002).

Second, the demise of tradition may come at a great cost to workers. Before its demise, tradition offered workers a robust discourse that supported their self-sacrifice or dedication to work (see Steger et al., 2010), buffering them against the demands of work duties. Moreover, tradition unifies workers; sharing a tradition offers a collective identity that

enables a sense of belongingness (Hund & Benford, 2004), thereby protecting workers by satisfying their basic needs. These benefits appear to offer potent resources against burnout. For instance, studies showed that burnout is virtually absent in an “ideological community” such as a monastery, where people inherit potent traditions (Cherniss & Krantz, 1983). As tradition gets eroded, such benefits are depleted; workers may find it hard to sustain their passion for their work (Dalla Rosa & Vianello, 2020) or connect with their work emotionally, making them susceptible to burnout (see Hagmaier et al., 2013).

Third, social changes along with modernization may also include bureaucracy in organizations (Riggs, 1997; Weber, 1978), further affecting their employees’ well-being. Bureaucracy may manifest as professional or machine bureaucracy (Mintzberg, 1979; Toren, 1976). Professional bureaucracy usually prevails in white-collar occupations (e.g., doctor). Work in such occupations revolves around standardized and professional skills and offers work flexibility through the lack of a clear working structure (e.g., no upper limit of working hours). This coin also has a reverse side: professional bureaucracy runs the risk of overburdening white-collar workers through open-territory work responsibilities, making them vulnerable to burnout. Machine bureaucracy predominates in blue-collar occupations (e.g., postal worker). Work in such occupations revolves around operational technostucture and routine tasks. Such bureaucracy is no better for workers; it may alienate workers through draining and repetitive labor, eventually putting them at risk of burnout. In general, bureaucracy seems to be a crucial antecedent that exposes workers to burnout (see Winnubst, 1993).

The grand cultural background offers a breeding ground for burnout to grow in all occupations. Probably because of that, around the 1990s, researchers defined job burnout as an occupational hazard that could apply to general work contexts (Maslach et al., 1997; see Schutte et al., 2000). Some researchers directly defined job burnout—without specifying contexts—as extreme exhaustion resulting from chronic emotional strain (Pines & Aronson, 1988) or chronic depletion of an individual’s coping resources (see Melamed et al., 1999). Despite this, across all occupations, job burnout seems most relevant to the occupations where job burnout was first identified (Schaufeli, 2017, p. 108)—the human service sector (Maslach, 1976) and health care (Freudenberger, 1975). Researchers believe that one possibility underlying that relevance of burnout to human service sector or health care may be the frustration that has become more widespread in those occupations since the 1960s. Those negative feelings may result from unrealistic policies or expectations (Schaufeli et al., 2009).

For instance, in the US, President Lyndon B. Johnson introduced the “War on Poverty,” which called for people to make sacrifices for a noble goal—contributing to their country by fighting and diminishing poverty. Young people heeded that call and poured into human service professions with great idealism. However, they soon became disillusioned and realized that poverty could not be eradicated. Poverty stems from the complicated interplay between individual behaviors and systemic and structural factors (see Brady, 2019). The effects of such interplay are too difficult to offset by the individual efforts of service providers;

what the youth perceived was that their efforts and achievements seemed to be undermined and nullified. As this realization unfolded, exhaustion, cynicism, and a sense of incompetence—characteristics of burnout—became widespread among service workers. Thus, challenging (if not unattainable) work goals like these decreed by government agencies can frustrate workers (if workers do not disengage from the goal; related discussion see Wrosch et al., 2003) and predispose them to burnout (Schaufeli et al., 2009).

In a nutshell, recent years have seen dramatic sociocultural changes in working conditions as a result of modernization. These changes include increasing of individualism, the loss of traditions, and the adoption of bureaucracy. Altogether, these changes have deprived workers of resources and placed numerous pressures on them, aggravating their risk of job burnout. What makes the situation worse is that some governments may even intervene in organizations, decreeing policies or goals for their workers that are challenging (if not impossible) to fulfill. When they realize that they have failed to meet those goals, workers may begin to feel incompetent and frustrated, become exhausted and eventually burn out. Overall, these justifications offer an etiological mechanism for job burnout at the societal or cultural level: job burnout is *“the product of the social and cultural changes that resulted from the transformation of an industrial society into a post-industrial service-oriented society”* (Schaufeli, 2017, p. 114).

1.2 From Job Burnout to Parental Burnout

The literature on job burnout provides guidance in disentangling the knot of the socio-historical roots of parental burnout; the cultural antecedents to job burnout seem to mirror what I observed about modern parenting culture, which is reported in the General Introduction. To begin with, while the increase of individualism and the demise of tradition may exert their effects directly in job domain, in parenting, these two factors seem to interact with each other and indirectly affect parents. They together constitute an expectation/mindset that parents must be self-reliant and take full responsibility for any negative consequences that affect their children; consequently, parents cultivate risk consciousness: they seek to be aware of all the risks that may jeopardize their children (M. K. Nelson, 2010). Such consciousness has intensified due to the influence of the media. The media spread fear-feeding news, ultimately painting a picture of “children at risk”: children are surrounded by risks that may endanger their safety (Nomaguchi & Brown, 2011) and ensure them an unfulfilling future (Lan, 2018; Milkie & Warner, 2014). Parental risk consciousness proliferates limitlessly, giving rise to the following cultural characteristics that appear favorable to burnout.

First, as described, increased risk consciousness erodes the solidarity perceived by parents. A heightened parental risk consciousness makes parents (versus non-parents) less likely to trust strangers/distant others and more likely to perceive them as formidable (Fessler et al., 2014). In response, these “strangers” may be reluctant to offer support because they fear their “help” will be misinterpreted as behavior that puts children at risk (Furedi, 2002). Such attitudes on both sides reinforce one another and ultimately produce a society that offers little

solidarity with parents, leaving them feeling that they do lack social support for their parenting (S. K. Harkness et al., 2022; related discussion see Geens & Vandenbroeck, 2014; Gottlieb & Bergen, 2010). Consequently, parents can only rely on themselves (or their immediate family members) to care for their children; they feel less connected to others, lonelier while parenting (see Yamoah & Brown, 2022). Soon parenting becomes the sole responsibility of individual parents; this ultimately leads to a parenting culture in which there is a lack of social support for parents, predisposing parents to parental burnout—an association that has been demonstrated (e.g., Szczygiel et al., 2020).

Second, a heightened risk consciousness predisposes parents to seek better strategies to rear their children; given the declining authority of tradition, it is science to which many anxious people now turn to know how to live their lives (Giddens, 1994), including parenting. However, ascertaining scientific findings has become more and more challenging. Since the 1970s, science related to parenting has blossomed to the point where scientific literature has become difficult, complicated, and daunting, making it inaccessible to non-expert parents. This has created the need for “parenting experts” to summarize and communicate the science, but also created the opportunity for myths—such as parental determinism, which holds that parents’ actions and choices regarding their children irreversibly affect children’s development—to creep in and haunt parents (for a critical discussion, see Furedi, 2002). Parents are lured to cultivate parenting perfectionism, to believe they must follow parenting experts’ advice, to set standards accordingly, and to avoid any mistakes (E. Lee, 2014a; M. A. Lee et al., 2012), and ultimately become exhausting as a result (Kawamoto et al., 2018).

Third, parental determinism appears to also affect societal attitudes to parenting. Given the importance of parenting, continually promoted by parental determinism (Furedi, 2002), society may expect parents to practice so-called “correct parenting” that is recommended by ever-expanding field of parenting science (Faircloth & Murray, 2015; E. Lee, 2014a). For example, some governments consider “correct parenting” so important that they even include it in public policies (see Gillies, 2005) and punish parents if they fail to follow some aspects of it; as a result, parents can become afraid that they will be judged as failing in their role and face severe sanctions, such as losing custody of the child (Nomaguchi & Milkie, 2020, p. 200). A crucial feature of bureaucracy—its attempt to organize human affairs for maximum efficiency (Godfrey & Madsen, 1998)—now seems to be present in the parenting context. Today’s parents are expected to follow an ever-increasing set of “correct parenting” practices (see Forbes et al., 2020; Hays, 1996; E. Lee, 2014b), and this may ultimately deplete their energy.

What makes the notion of “correct parenting” especially dangerous is that it may embed unrealistic standards. These can be seen to develop at governmental level, for example. Despite variants between governments, expectations converge by “not placing an upper limit” on parenting standards: parents must fulfill their children’s best interests and enable them to realize their optimal potential. For example, the Council of Europe has recommended and promoted *positive parenting*, with parents expected to implement “[parenting] behavior based on the best interest of the child” (Rodrigo, 2010, p. 282). Moreover, parenting “experts”

get into the act at the public level. Experts promote “*exclusively positive parenting*,” expecting parents to constantly express positive emotions and eliminate negative emotions from interactions with their children (Larzelere et al., 2017). However, this can be unrealistic: since parenting is a dynamic context where parents often feel negative emotions (Kerr, Rasmussen, et al., 2021), it is impossible for parents always to behave this way. Parents may buy into these unrealistic standards set by social institutions and be prone to frustration and disappointment (when they realize they cannot achieve the goal).

In short, Western sociocultural changes have not been any more favorable to parents than to workers: today’s parenting culture seems as demanding (if not more demanding) as today’s work culture. To begin with, the interaction between the increase of individualism and the demise of traditions encourages parents to be more cautious over their children. As a (remote) result, parents perceive societal solidarity with them as eroded and cultivate parenting perfectionism, and society expects parents to implement “correct parenting”, as defined by science. What makes “correct parenting” particularly dangerous is that it may involve challenging (if not impossible) standards. Such standards have been seen to develop in policies (e.g., no upper limit on parenting) or experts’ recommendations (e.g., “exclusively positive parenting”). The more parents buy into these standards, the more they become frustrated when they find they cannot meet them. Overall, given the resemblance of cultural changes between the work and parenting domains (despite some differences), if we believe that working culture is conducive to job burnout, we should concur that modern parenting culture provides a perfect recipe for developing parental burnout.

1.3 Midway Concluding Remarks

This review first consulted the job burnout literature to identify parental burnout’s socio-historical roots. Our review supported Roskam and colleagues’ (2017) observation that there is a resemblance between job and parental burnout in their socio-historical roots. Specifically, our review showed that Roskam, Aguiar, and colleagues (2021) offer much insight into why Western parents are more vulnerable to parental burnout. Still, the plausible cause of what they found—individualism, if we agree with Hofstede’s (2001) operationalization of it—is only one piece of the puzzle. Increasing individualism may interact with other social and cultural changes, such as the dismantling of tradition (Giddens, 1994), to affect parents; it may be their interplay instead of individualism as the sole factor that creates the “peculiar” Western parenting culture (see Henrich, 2020). Such a culture manifests itself in the form of (at least) three cultural characteristics that appear to promote parental burnout: (1) parents cultivating parenting perfectionism (see M. A. Lee et al., 2012); (2) parents perceiving solidarity with them as eroded (Furedi, 2002) (3) society incorporating challenging standards into an ever expanding definition of “correct parenting” (Dupont et al., 2022).

2. Introduction to the Empirical Contributions

This review has shed crucial light on cultural characteristics that may predict parental

burnout and indicate why Western parents are prone to it. Although these characteristics are the likely cause, we need empirical evidence to support this proposal. Such evidence appears in the five empirical chapters of this thesis, which examine the association of factors related to those cultural characteristics with parental burnout.

- (1) Chapters 3-4 present studies that relate to the first cultural characteristic, parents cultivating parenting perfectionism (see M. A. Lee et al., 2012); these studies elaborate on the association between parenting perfectionism and parental burnout.
- (2) Chapter 5 presents a study that concerns the second cultural characteristic, parents perceiving solidarity with them as eroded (Furedi, 2002); this study examines the association of social support perceived by parents with parental burnout.
- (3) Chapters 6-7 present studies that revolve around the third cultural characteristic, society incorporating challenging standards into an ever expanding definition of “correct parenting” (Dupont et al., 2022); these studies assess Western parents’ ideal-parent beliefs and explore their association with parental burnout.

2.1 Chapter 3: Parenting Perfectionism and Parental Burnout

I will first consider the effects of parenting perfectionism—the mindset that “Striving for perfection is important” (Hewitt & Flett, 1991) as applied by parents to their parenting. In the literature on perfectionism, researchers have concurred (at least since the 1990s) that perfectionism is a stable multidimensional disposition/trait (Stoeber, 2018). They have proposed different models for differentiating dimensions of perfectionism. Studies of factor analyses have shown that most dimensions across models may be organized under two general dimensions: concern over mistakes (i.e., perfectionistic concerns) and setting exceptionally high standards (i.e., perfectionistic strivings). First, perfectionistic concerns include, for instance, socially prescribed perfectionism (i.e., the perception that others are demanding perfection) and discrepancy (i.e., perceiving a gap between one’s ideal and reality). Second, perfectionistic strivings include, for instance, self-oriented perfectionism, namely demanding perfection of oneself, and personal standards, namely striving for perfection (see M. M. Smith et al., 2020, pp. 1–2). Previous studies have consistently shown that both dimensions predict detrimental effects, such as depression (see M. M. Smith et al., 2021 for a review).

Traditionally, researchers have viewed perfectionism as a stable disposition/trait (which might manifest as perfectionistic behaviors or cognitions; Stoeber, 2018) that is consistent across contexts. However, while perfectionism could be partially inherited (Iranzo-Tatay et al., 2015) and might thus have some consistency across life domains, recent research demonstrated that the extent of perfectionism can differ across different life domains; in fact, very few perfectionistic individuals strive for perfection across all life domains (Stoeber & Stoeber, 2009). For example, McArdle (2010) found that academically gifted youth were more likely to exhibit perfectionistic tendencies in school as opposed to in sports, indicating significant differences in perfectionistic tendencies across life domains. Furthermore,

Franché and Gaudreau's (2016) multilevel analyses have also shown that there could be up to 50% of the variability in perfectionism that can be attributed to differences across domains (see Gaudreau et al., 2018). Given such significant variability of perfectionism across life domains, this thesis decided not to work on parents' general dispositions of perfectionism but to focus on the concept of "parenting perfectionism" (Snell et al., 2005).

What is "parenting perfectionism"? Researchers have defined it as perfectionism contextualized in the parenting context (Snell et al., 2005); parenting perfectionism is a specific parental disposition, which can manifest as parenting cognitions and parenting practices. Researchers have also differentiated parenting perfectionism into two general dimensions: setting exceptionally high standards for parenting (i.e., perfectionistic strivings) and excessive concern about mistakes in parenting (i.e., perfectionistic concerns). Prior studies have shown that these two general dimensions may come with different consequences in parental adjustment. While perfectionistic concerns predict worse adjustment, such as lower parenting self-efficacy, perfectionistic strivings are related to better adjustment, such as higher parenting satisfaction (M. A. Lee et al., 2012). In a pioneering study, Kawamoto et al. (2018) showed that in Japan, parenting perfectionism, especially its perfectionistic concerns dimension, puts parents at risk of burnout. They also proposed that perfectionism can be detrimental because it may make people less able to tolerate uncertainty (Kawamoto & Furutani, 2018); given this, we may hypothesize that perfectionistic parents may have difficulty functioning in uncertain situations and consequently experience higher levels of stress.

Chapter 3 continues down this path by examining the association of parenting perfectionism with burnout in Western populations. It also breaks new ground: drawing on the BR² theory of parental burnout, I suggest that a protective factor can buffer the effect of the risk factor—parenting perfectionism in this case—if the protective factor is powerful enough (Mikolajczak & Roskam, 2018). Of all possible protectors, this study focuses on emotional competence (also called "emotional intelligence")—individual differences in how people identify, express, understand, regulate and use their own emotions and those of others (Mayer & Salovey, 1997). My reasoning builds on the fact that emotional competence may result in better emotional functioning (Nelis et al., 2011); it may mitigate the negative consequences that parenting perfectionism may have (e.g., intolerance of uncertainty; Albani et al., 2023; Kawamoto & Furutani, 2018), thereby buffering the effect of parenting perfectionism. Overall, Chapter 3 aims to examine whether parenting perfectionism can be so detrimental that it positively predicts parental burnout, and whether emotional competence buffers such a relation.

2.2 Chapter 4: Child-Oriented Perfectionism and Parental Burnout

In this chapter I extend the scope of Chapter 3; given that parenting occurs in a complex relational context involving parents and children (Kerig, 2019), I hypothesize that parents who strive for perfection in their parenting may also expect perfect outcomes from their children (M. K. Nelson, 2010, p. 8). The literature on perfectionism has long indicated that

people may strive not only for their own perfection but also for that of others (Hewitt et al., 1991). For instance, in romantic relationships, one may expect perfection from the partner (so-called “partner-oriented perfectionism”; Shea et al., 2006a). Recently, Piotrowski (2020) has adapted “other-oriented perfectionism” to parent-child relationships and defined parents’ expectations of perfection in their children as “child-oriented perfectionism.” Child-oriented perfectionism manifests itself in three dimensions: high standards (i.e., setting high expectations for children), order (i.e., expecting children to be well-organized and tidy), and discrepancy (i.e., perceiving that children fail to meet prescribed parental standards). Piotrowski showed disparate consequences of these dimensions; discrepancy appears to be a critical factor in child-oriented perfectionism that places demand on and stresses parents.

Given the toll that parenting perfectionism may take on parents, the suspicion is raised in Chapter 4 that child-oriented perfectionism may also put parents at risk of burnout. We expect discrepancy to be the crucial factor in child-oriented perfectionism that predicts parental burnout. This is because the perception of a discrepancy between expectations and actual performance may cause constant emotional distress (see M. M. Smith et al., 2020) that eventually overwhelms parents. Moreover, following the BR² theory of parental burnout, I believe that a protective factor can buffer the effect of risk factors, provided the protective factor is powerful enough (Mikolajczak & Roskam, 2018). In the search for such protective factors for child-oriented perfectionism, emotional competence emerges as an appealing candidate. It may mitigate the adverse emotional costs that child-oriented perfectionism imposes, thus buffering its detrimental effect and protecting parents against burnout. Chapter 3 has provided evidence that emotional competence powerful enough to offset the positive association of parenting perfectionism with burnout; in view of this, I further hypothesize in Chapter 4 that emotional competence may buffer the risk of parental burnout due to child-oriented perfectionism.

2.3 Chapter 5: Social Support and Parental Burnout

Sociologists have long discussed the way in which Western social changes have eroded social solidarity with parents’ (Furedi, 2002). Solidarity is a sense of interdependence between individuals that makes them feel they can help/benefit from each other (Durkheim, 1964; C. Smith & Sorrell, 2014). Thus, the erosion of parental solidarity may manifest as parents experiencing limited support from their social network in raising their children (for a related discussion, see Faircloth, 2020). They feel that they lack either emotional (i.e., receiving care, empathy, love, and trust), informational (i.e., receiving information), instrumental (i.e., receiving tangible help), or appraisal (i.e., receiving communication that may affect their self-assessment) support from their social network (House, 1981). Whatever precise form it takes, a feeling of lacking social support may constitute a sense of decreased solidarity (Laitinen, 2014; Uchino, 2009; Uehara, 1990), making parents feel less connected and less satisfied in their basic personal needs, for example for belonging (Gugliandolo et al., 2021; Yamoah & Brown, 2022). Overall, a lack of social support—losing the resources that parents require—may jeopardize parents, for instance, by putting them at risk of burnout

(Szczygieł et al., 2020).

Chapter 5 continues down this path by elaborating the association of social support with parental burnout. I concur with prior studies that limited social support may positively predict parental burnout (e.g., Szczygieł et al., 2020). Yet, going further, I rely on the BR² theory of parental burnout (Mikolajczak & Roskam, 2018) and propose that potent protective factors, such as emotional competence, can buffer the detrimental effect of lacking social support. This proposal is based on the observation that limited social support may generate stress or negative emotions that can lead to burnout (Gugliandolo et al., 2021; Siedlecki et al., 2014; Yamoah & Brown, 2022). Such an emotional risk may be less significant if parents possess better emotional competence, for instance, the ability to apply cognitive reappraisal (changing the meaning of the situation to modulate emotions; Megías-Robles et al., 2019)—an adaptive emotion regulation strategy related to a wide range of adaptive outcomes (e.g., McRae et al., 2012). Chapter 5 offers evidence showing that cognitive reappraisal buffers the positive relation between limited social support and parental burnout.

2.4 Chapter 6: Ideal-Parent Beliefs in Western Countries

Finally, this thesis hypothesizes that today's parents bear a significant burden from the challenging parenting standards prescribed by society. These challenging standards may eventually exhaust parents. I evaluate this hypothesis in Chapters 6-7. Chapter 6 throws light on these standards by asking directly for the views on parenting of the principal actors in societies—individual parents. It presents a study that identified contemporary Western parents' ideal-parent beliefs (see Weaver et al., 2020)—what characteristics parents believe a good parent should ideally have—and discussed whether a specific pattern of ideal-parent beliefs predominates in Western countries. This study used a dataset of 8,357 mothers and 3,517 fathers across 37 Western and non-Western countries. The dataset collected parents' self-report responses to an open-ended question about their ideal-parent beliefs. The data were analyzed by automatic content analysis (semantic network analysis; A. E. Smith & Humphreys, 2006); the results showed that parents from Western countries (as opposed to others) endorse an ideal-parent belief that good parents should display positive emotions (e.g., being “loving” and “caring”) and control negative emotions (e.g., being “patient”).

2.5 Chapter 7: Emotional Display Rules and Parental Burnout

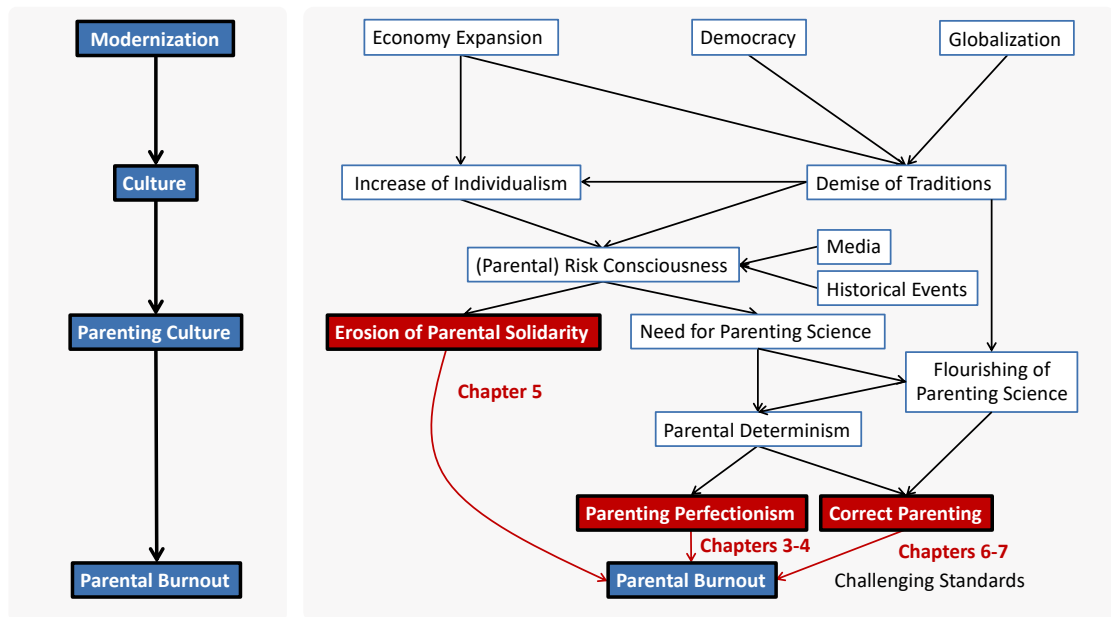
Chapter 7 evaluates whether such ideal-parent beliefs prevalent in Western countries are challenging in the sense that they may contribute to parental burnout. The study presented here borrows the essence of the emotional labor framework initially developed in the context of work (see Grandey et al., 2013) and adapts it to the parenting context. This adapted framework suggests that ideal-parent beliefs may give rise to an emotional display rule in parenting for parents to follow: positive emotions should be shown and negative emotions should be suppressed. Following this emotional display rule—for instance, by controlling negative emotions—is impossible, because parenting is a context also conducive to negative emotions, giving rise to multiple opportunities to violate the rule (Kerr, Rasmussen, et al.,

2021). When such opportunities arise, parents must invest effort to “act” in front of their children, either by altering emotional expressions (i.e., surface acting) or by aligning the emotions they feel with prescribed emotions (i.e., deep acting), ultimately exhausting themselves. Together with Chapter 6, this study implies that Western parents currently subscribe to a parenting ideal that is “unrealistic” and exhausting.

In sum, this thesis includes five chapters of empirical studies. Taken together, they support an overarching theme and goal of the thesis: to explore why, as Roskam, Aguiar, and colleagues (2021) discovered, parental burnout is especially prevalent among Western countries. To this end, this thesis adopts a deductive approach: factors are deduced that may predict parental burnout; the empirical chapters then present studies that provide support for the harmful nature of these factors and elaborate on the associations of these factors with burnout (summarized in Figure 2.1). The empirical studies provide evidence for the proposal made in the review of the socio-historical roots of parental burnout (mirrored by those of work burnout). First, Western parents perceive solidarity with them (manifested as social support) as having been eroded and cultivate parenting perfectionism (and child-oriented perfectionism); these characteristics appear to predict more symptoms of parental burnout, but emotional competence can buffer these associations. Finally, Western parents appear to endorse a set of parenting ideals that relate to emotions; they invest efforts in meeting these ideals, which in turn predicts their susceptibility to parental burnout.

Figure 2.1

A Network Diagram of the Socio-Historical Roots of Parental Burnout



This diagram summarizes the socio-historical roots of parental burnout that are reviewed in this thesis. To begin with, modernization and the corollary social changes—such as the expansion of the economy, the spread of democracy, and the flowering of globalization—shape a general culture characterized by the rise of individualism and the demise of traditions (which may feedback and drive a further increase of individualism). Next, these general cultural changes lead to parental risk consciousness, intensified by media coverage and fear-feeding historical events (such as terrifying news that are disseminated by the media). Finally, a heightened risk consciousness creates today’s Western parenting culture, in which solidarity with parents has been eroded and there is an increasing need for parenting science. That need, in part, creates the opportunity for parenting science to flourish and for parental determinism to creep in. Parental determinism encourages parents to cultivate perfectionism and causes society to prescribe “correct parenting”, based on knowledge derived from the flourishing field of parenting science. I hypothesize that the erosion of parental solidarity, the cultivation of parenting perfectionism, and the prescription of “correct parenting” (assuming that this involves challenging standards) may reduce resources and increase risks in parenting, amounting to a perfect recipe for parental burnout. This proposal is evaluated in five empirical chapters.

PART III Empirical Contributions of the Present Thesis

Chapter 3 Aiming to Be Perfect Parents Increases the Risk of Parental Burnout, But Emotional Competence Mitigates It

Aiming to Be Perfect Parents Increases the Risk of Parental Burnout, But Emotional Competence Mitigates It

Abstract

Parenting perfectionism, especially the dimension of perfectionistic concerns—preoccupation with self-criticism including concern over mistakes and doubts about own behaviors—, has been shown to be a weighty factor for parental burnout. Drawing on the Balance between Risks and Resources (BR²) theory of parental burnout, this paper examines whether emotional competence could moderate/buffer the effect of parenting perfectionism on parental burnout. We investigated this question in two independent samples of parents collected in Belgium ($N = 347$) and Poland ($N = 377$). The results of both studies show that emotional competence cancels out the detrimental effect of perfectionistic concerns on parental burnout. Beyond its contribution to parenting perfectionism and emotional competence literatures, the present article also provides further evidence of the potential of the BR² theory of parental burnout.

Reference

Lin, G.-X., Szczygieł, D., Hansotte, L., Roskam, I., & Mikolajczak, M. (2023). Aiming to be perfect parents increase the risk of parental burnout, but emotional competence mitigates it. *Current Psychology*, 42(2), 1362–1370. <https://doi.org/10.1007/s12144-021-01509-w>

1. Introduction

Recent years have seen dramatic changes in parenting (Faircloth, 2014). Parents nowadays set higher and higher expectations for both their parenting behavior and child development, and are increasingly anxious about performing well in parenting (Eibach & Mock, 2011; Lan, 2018; M. K. Nelson & Nelson, 2010). Some parents care so much about being good parents that they even aim to be perfect parents. It is probably not a coincidence that it is in this zeitgeist that the terms “parenting perfectionism” (Snell et al., 2005) and “parental burnout” (Linström, Aman & Norberg, 2011) were coined. Although parenting perfectionism has several positive outcomes (e.g., increased involvement), it increases parental stress and distress, and significantly increases the risk of parental burnout (e.g., Furutani et al., 2020; Kawamoto et al., 2018; Sorkkila & Aunola, 2020; Szczygieł et al., 2020). The present research aims to examine whether emotional competence can counteract the effect of parenting perfectionism on parental burnout. In order to lay the foundations for our hypotheses, we will introduce the study concepts at hand at the beginning of the article. Because parental burnout is the newer and therefore less known construct, we will start by briefly presenting it. Second, we will then present parenting perfectionism and its relationship with parental burnout. Finally, we will present emotional competence and explain why it might act as a moderator in the above relationship.

1.1 Parental burnout

Parental burnout (PB) is a psychological syndrome resulting from chronic stress in the parenting domain. It is characterized by overwhelming exhaustion related to one’s parental role, emotional distancing from one’s children, and a loss of parental fulfillment, all of which contrast with how the parent felt before about parenting (Roskam et al., 2018). According to a recent study on its prevalence across 42 countries (Roskam, Aguiar, et al., 2021), there are 5% of parents suffering from parental burnout, and the prevalence could be even as high as 8% in Western countries such as Belgium and Poland for instance. This high prevalence is especially worrying because PB has been shown to have very detrimental consequences for both parents and children. Not only does it harm the physical and mental health of the parents concerned (Brianda, Roskam, Gross, et al., 2020; Mikolajczak, Brianda, et al., 2018b), but it also sharply increases neglectful and violent behaviors towards their children (Brianda, Roskam, Gross, et al., 2020; Mikolajczak et al., 2019). Preventing parental burnout is therefore crucial and this requires to extend the knowledge about its etiological factors and their interactions. The current paper is part of this endeavor.

1.2 Parenting Perfectionism as a vulnerability factor for PB

Parenting perfectionism denotes perfectionism in the parenting domain. With the same factor structure as perfectionism (e.g., A. P. Hill & Curran, 2016), parenting perfectionism has been defined as a multidimensional construct encompassing two superordinate

dimensions: perfectionistic strivings—self-oriented extremely high standards of performance and perfectionistic concerns—preoccupation with self-criticism including for instance concern over mistakes and doubts about own behaviors (see Kawamoto & Furutani, 2018). Parenting perfectionism has been shown to be a strong risk factor for parental burnout and this finding was replicated in both western (Sorkkila & Aunola, 2020) and eastern (Kawamoto et al., 2018) cultural contexts⁷. Yet, the two dimensions of parenting perfectionism—perfectionistic strivings and concerns do not have equivalent effects. While parenting perfectionistic concerns robustly predicted more serious PB, the association of parenting perfectionistic strivings with PB was of smaller magnitude and even turned insignificant when the effect of perfectionistic concerns was controlled (Kawamoto et al., 2018). This result suggests that parenting perfectionistic concerns may be the key dimension of parenting perfectionism that makes parent vulnerable to burnout.

1.3 Emotional Competence as a Buffer

According to the Balance between Risks and Resources (BR²) theory of PB, PB is never a product of one risk factor but results from a chronic imbalance between risks and resources in the parenting domain (Mikolajczak & Roskam, 2018). Thus, protective factors could theoretically compensate for the detrimental effect of parenting perfectionism, provided that these factors are equal in weight to the risk factor. Given the robust effect of parenting perfectionism, any protective factor that would be expected to alleviate the risk of parenting perfectionism should be at least equally weighty. One particularly good candidate is “emotional competence.”

Emotional competence (EC; also called emotional intelligence) represents the extent to which individuals can identify, express, understand, regulate, and use their own and others’ emotions (Mayer & Salovey, 1997). EC has been found to predict resistance to a variety of stressors (e.g., Ciarrochi, Deane, & Anderson, 2002; Karimi, Leggat, Donohue, Farrell, & Couper, 2014; see Petrides et al., 2016), including parenting stressors (see Crandall et al., 2015; Finzi-Dottan et al., 2011). These protective effects hold true over and above other personality traits (Mikolajczak, Menil, et al., 2007; Mikolajczak, Roy, et al., 2007; Mikolajczak, Petrides, et al., 2009). Unsurprisingly then, EC has been found to be a potent protective factor for burnout (Karahana & Yalçin, 2009; Mikolajczak, Menil, et al., 2007; Salami & Ajitoni, 2016; Szczygiel & Mikolajczak, 2018) or PB in particular (Mikolajczak, Raes, et al., 2018; Bayot et al., 2020 for intrapersonal emotional competence; Szczygiel et al., 2020).

⁷ However, in their study, Sorkkila and Aunola (2020) focused on general perfectionism, rather than specifically examining parenting perfectionism. This distinction was not (but should) clarified during the preparation of our chapter for publication.

1.4 The Present Study

This study aims to examine whether EC can moderate/counteract the effect of parenting perfectionism (PP) on PB. Based on the above literature, we predicted a positive association between both perfectionistic strivings and concerns and PB (Hypothesis 1), and the positive association of perfectionistic strivings with PB would be insignificant when controlling for the effect of perfectionistic concerns (Hypothesis 2). In addition, we also predicted a negative correlation between EC and PB (Hypothesis 3). Based on the BR² theory of PB (Mikolajczak & Roskam, 2018), we predicted an interaction effect between EC and perfectionistic concerns, such that EC would buffer the effects of perfectionistic concerns on PB (Hypothesis 4). At last, we will also explore whether EC will further moderate the effect of perfectionistic strivings on PB when perfectionistic concerns are controlled for; yet, we did not expect EC to moderate any further impact of perfectionistic strivings on PB at this circumstance.

In order to test the generalizability of the findings in the context of the replication crisis in psychological science (see Simmons et al., 2011), these hypotheses will be tested in two studies conducted in two different countries (Belgium and Poland). Given that the main effects of PP and EC on PB have already been demonstrated, the focus and novelty of the current study lie in the interaction effect. This study is the very first to test the validity of predictions based on the BR² theory. Beyond its contribution to PP and EC literatures, it can, therefore, be seen as a test of the validity of the BR² theory of PB. A theory can never be considered as definitely true, but it can be proven false. The absence of any interaction effect between two factors that independently *and* equally predict PB would invalidate the theory.

2. Study 1: Belgian Sample

2.1 Methods

2.1.1 Participants and procedure

The variables used here were extracted from a larger study on Emotional Labor in Parenting. All other variables (i.e., apart from parental perfectionism and EC) were used in an article currently submitted for publication (Lin et al., 2020; available online at <https://doi.org/10.31234/osf.io/ewjyn>). The study program was approved by the Institutional Review Board. The study was posted online on Qualtrics. Participants were eligible to participate only if they were parents and had (at least) one child still living at home. 347 out of 379 respondents answered the whole questionnaire (M_{age} of 38.75 years, $SD_{\text{age}} = 9.77$ years). The demographic characteristics of the sample can also be found in Lin et al. (2020). The sample size to be reached was based on the number of parameters included in the path analysis model of Lin et al. (2020).

2.1.2 Measures

We measured PB with the Parental Burnout Assessment (PBA; Roskam et al., 2018), a

23 item-questionnaire including four dimensions: exhaustion in one's parental role (9 items; e.g., "I feel completely run down by my role as a parent"), emotional distancing from one's child(ren) (3 items; e.g., "I do what I'm supposed to do for my child(ren), but nothing more"), feelings of being fed up with one's parental role (5 items; e.g., "I can't stand my role as father/mother any more"), and contrast with previous parental self (6 items; e.g., "I don't think I'm the good father/mother that I used to be to my child(ren)"). Items are rated on a 7-point frequency scale (from *never* [0] to *everyday* [6]) and summed to form a global score. A detailed psychometric analysis regarding PBA could be seen in Szczygieł and colleagues (2020; Polish sample) and Roskam and colleagues (2018; Belgian sample). The Cronbach's α of the scale in the current sample was .97.

We assessed intrapersonal EC with the intrapersonal scale of the Profile of Emotional Competence (PEC; Brasseur et al., 2013), a 50-item questionnaire assessing emotion identification, emotion understanding, emotion utilization, emotion expression, and emotion regulation regarding both the respondent's own (intrapersonal EC; 25 items; e.g., "when I feel good, I can easily tell if it's because I'm happy, proud of myself or relaxed") and others' emotions (interpersonal EC; 25 items; e.g., "I know when a person is angry, sad, or happy even if they don't tell me about it"). Items are rated on a 5-point Likert scale (from *does not describe me at all* [1] to *describes me perfectly* [5]) and averaged to form a global score. Because there were already too many measurements in the study (Lin et al., 2020) from which the present dataset was drawn, only the intrapersonal dimension of EC was measured here (both dimensions were measured in Study 2). Psychometric analysis for PEC could be consulted in Brasseur and colleagues (2013). The Cronbach's α of intrapersonal EC in the current sample was .87.

We measured PP with a brief 6-item questionnaire developed for the present study and inspired by both Snell and colleagues' (2005) Multidimensional Parenting Perfectionism Questionnaire (MPPQ) and Kawamoto and Furutani's (2018) Japanese version of the Multidimensional Perfectionism Scale (J-MPS). This questionnaire includes two dimensions: perfectionistic concerns (PC; 3 items; e.g., "As a parent, if I failed in part, it's as bad as if I failed completely") and perfectionistic strivings (PS; 3 items; e.g., "As a parent, I expect nothing less than perfection"). The full-scale figures can be found in supplementary material (Table S3.2). Items are rated on a 5-point scale (*Does not match me at all* [1] to *Matches me perfectly* [5]) and averaged to form scale scores. The Cronbach's α of PC in the current sample was .82; the Cronbach's α of PS in the current sample was .87.

2.1.3 Analysis Strategy

We tested Hypotheses 1 and 3 via Pearson correlations. We examined Hypothesis 2 and 4 with hierarchical regressions using on SPSS 25 (IBM Corp., 2017). Specifically, in regression analysis, two PP scales were entered simultaneously for predicting PB in the first step; the intrapersonal EC scale was entered in the second step; the two-way multiplicative terms between the intrapersonal EC scale and the two PP scales were then entered in the third step simultaneously. The predictor variables were mean-centered before creating interaction terms to avoid multi-collinearity.

2.2 Results

The means, standard deviations, and correlations among the study variables are summarized in Table 3.1 (above the diagonal). As regards the main effects, a clear relation of both PC ($r(346) = .29, p = .000$) and PS ($r(346) = .19, p = .000$) to PB emerged, thereby confirming Hypothesis 1. The relation between PS and PB however disappeared when controlling the effect of PC (see step 1 in Model 1 of Table 3.2), thereby confirming Hypothesis 2. Finally, there was a clear relation between intrapersonal EC and PB ($r(346) = -.39, p = .000$), confirming Hypothesis 3.

As regards the interaction effects, the interaction term of PC and intrapersonal EC was significant in predicting PB (see step 3 in Model 1 of Table 3.2). Simple slope tests (see Model 1 of Table 3.2 and Figure 3.1a for interaction plot) were performed and revealed that the positive predictive effects of PC on PB decreased to insignificant as intrapersonal EC increased from low to high. This finding confirmed the buffering effect of intrapersonal EC, thus supporting Hypothesis 4. As predicted, there was no significant effect of the interaction term of PS and intrapersonal EC. As a whole and adjusted, the multiple regression model (see Model 1 of Table 3.2) explained 20% of the variance in PB.

2.3 Discussion

The findings of this study were in line with all our hypotheses. Although we used a different measure of PP than that used in Kawamoto and colleagues' (2018) study, the effect size of the association between PS ($r = .19$) as well as PC and PB ($r = .29$) in this study was comparable to theirs, suggesting that the relations are between constructs and not only between measures. The correlation between intrapersonal EC and PB observed here ($r = -.39$) was also comparable to previous studies (Bayot et al., 2020; Mikolajczak, Raes, et al., 2018). Most importantly, we demonstrated that intrapersonal EC counter-balanced the effect of PC on PB, as predicted by the BR² theory of PB (Mikolajczak & Roskam, 2018).

3. Study 2: Polish Sample

We initiated Study 2 in Poland in parallel to Study 1 to test our hypotheses using the full measure of EC and ensure the generalizability of findings. This study followed the same methods as in Study 1.

3.1 Methods

3.1.1 Participants and procedure

377 Polish parents (M_{age} of 37.83 years, $SD_{age} = 7.64$ years) were recruited, all of whom provided data that contained no or very few missing values. 79.8% of families were two-parent, 9.3% were single-parent, and the remaining 10.9% included step-families and

multigenerational families. Overall, the participants had from 1 to 5 children living with them. Their oldest child was aged between 0 and 40 years ($M_{\text{age}} = 10.68$ years; $SD_{\text{age}} = 7.10$ years). Among the participants, 5% had over 23 years of formal education, 27% had 19-23 years, 64% had 12-18 years, and 4% had less than 12 years. 87% of them worked for 6-10 hours per day, 9% for less than 6 hours per day, and 3% for over 10 hours per day.

3.1.2 Measures

We used the same measures as in Study 1, except that we used the whole measure of EC (including both intrapersonal and interpersonal EC). In the current sample, the Cronbach's α s of intrapersonal and interpersonal EC were .88 and .90 respectively. The Cronbach's α of PC was .70, that of PS was .81, and that of PB was .96.

3.1.3 Analysis Strategy

We used the same analysis strategy as in Study 1. In analyses regarding EC, we explored the effect of intrapersonal and interpersonal dimensions in separate regression models.

3.2 Results

The means, standard deviations, and correlations among the study variables are summarized in Table 3.1 (below the diagonal). As regards the main effects, the results revealed significant positive relations of PS ($r(376) = .20, p = .000$), and PC ($r(376) = .29, p = .000$) to PB, thereby confirming Hypothesis 1. The relation between PS and PB however disappeared when controlling the effect of PC (see step 1 in Model 2 and Model 3 of Table 3.2), thereby confirming Hypothesis 2. Finally, there was a clear negative relation between intrapersonal EC ($r(376) = -.32, p = .000$), and interpersonal EC ($r(376) = -.26, p = .000$) to PB, confirming Hypothesis 3.

As regards the interaction effects, the interaction term of PC and intrapersonal EC was significant in predicting PB (see step 3 in Model 2 in Table 3.2). Simple slope tests revealed that the positive predictive effects of PC on PB decreased to insignificant as intrapersonal EC increasing from low to high (see Model 2 of Table 3.2 and Figure 3.1b for interaction plot). Similar findings also appeared in the analysis with interpersonal EC (see Model 3 of Table 3.2 and Figure 3.1c for interaction plot) as moderator. These findings thus confirmed Hypothesis 4. As predicted, there was no significant effect of the interaction term of PS and intrapersonal or interpersonal EC (see Model 2 and 3 of Table 3.2). As a whole and adjusted, our multiple regression model with intrapersonal EC as moderator explained 18% of PB, and the model with interpersonal EC as moderator explained 17% of PB.

3.3 Discussion

The results of this study confirmed all our hypotheses, thereby replicating and extending the results of Study 1. The results of both studies taken together are discussed below.

4. General Discussion

Aiming to be a perfect parent, PP, is an increasingly common phenomenon in current parenting culture (see Daly, 2007), and both qualitative and quantitative studies have recently called attention to its detrimental effect on parents and, in particular, to its unique effect on parental burnout (Hubert & Aujoulat, 2018; Kawamoto et al., 2018; Sorkkila & Aunola, 2020). In two different cultural contexts (Belgium and Poland), this study found that aiming to be perfect parents puts parents at risk of PB. However, not all perfectionist parents burn out, and this study helps to explain why this is: first, compared to the risk of PS, PC is more dangerous; second, protective factors such as good emotional competencies can buffer the impact of PC on PB. Moreover, these results remain similar even considering demographic variables as control variables (see the detailed discussion in the current article's supplementary material). As shown below, these results contribute to the literature on PB, on perfectionism, and on EC⁸.

As far as PB is concerned, our findings provide direct evidence in support of the BR² theory (Mikolajczak & Roskam, 2018), which predicts that risk factors can be compensated by equally weighty resources (in the present case) or a collection of smaller resources. As predicted, we found that a weighty resource (here: EC) can indeed counter-balance a weighty risk (here: PP, especially PC). Specifically, this effect holds true in two samples from Eastern and Western Europe, Poland and Belgium respectively, revealing the pervasive potent harm of PC, the commonly powerful benefit of EC, and the ubiquitous explanatory power of the BR² theory of PB across Western (at least European) cultures. Future research should replicate this interaction in other parts of the world to ensure that these conclusions also apply to non-Western parents.

Next, our result also contributes to the perfectionism field. Perfectionism was originally defined as a personality trait, and our research may further demonstrate the importance of situating this personality trait in context (see Dunlop, 2015). Literature demonstrated that PS had both adaptive and maladaptive function. Because of the concept overlap, PC may suppress the beneficial effect of perfectionistic strivings to adjustment (R. W. Hill et al., 2010). For instance, A. P. Hill and Curran's (2016) meta-analysis on the association of perfectionism with burnout revealed that PS significantly predicted *less* burnout symptoms, and these effects were more prominent while controlling the effect of PC. However, this conclusion is less valid for work context, as revealed in A. P. Hill and Curran's (2016). It is even invalid for parenting context. Both our research and Kawamoto and colleagues' (2018) revealed that PS did not have a significant beneficial effect on PB, even after controlling PC's effect. There may be a number of possible reasons why the beneficial effect of PS is weaker in both

⁸ Caution should be warranted because, although parenting perfectionism and emotional competence are theoretically categorized as risk/vulnerability factors and resource/protective factor, this study does not have sufficient evidence to support this categorization due to the cross-sectional and correlational study design employed.

work/parenting contexts. One of them may be the ubiquity of intensive norms in both work and modern parenting (see Lin et al., 2020), offsetting the protective effect—increasing intrinsic motivation—of PS (e.g., E. Chang et al., 2016). However, future studies are needed to validate this assumption.

Lastly, this study also contributes to the literature on EC in two ways. First, our findings extend our understanding of the buffering effect of EC (see Petrides et al., 2016). Although this effect was well-documented, most previous research tested it by looking at the association between external events, sociodemographic variables, or risky behaviors (e.g., poor diet habits) and psychological or physical health (see Petrides et al., 2016). Our research is the first in this field to demonstrate that EC also buffers the detrimental effect of other personality traits. Second, our findings shed a different light on the status of interpersonal EC as a risk/protective factor vis-à-vis PB. A recent study suggested that while intrapersonal EC is a *protective* factor, interpersonal EC is a *risk* factor for PB (Bayot et al., 2020). The current study suggests, on the contrary, that both intrapersonal and interpersonal EC are protective factors. One reason that may cause this discrepancy lies in the statistical analyses used in these two studies. In particular, Bayot and colleagues' (2020) put both intrapersonal and interpersonal EC in the same regression model to predict PB. This has the advantage of controlling for the effect of the other dimension but the disadvantage of potentially masking a portion of its true effect (the “common portion”). For this reason, we in the current research chose to analyze the effect of EC separately. Future studies are needed to shed light on this interesting discrepancy and examine the interaction between EC and parental burnout dimensions.

In addition to the contributions to the literature, this research indeed has a practical implication. Although two evidence-based interventions exist to treat PB (Brianda, Roskam, Gross, et al., 2020), there is no program to prevent PB. Designing an effective prevention program requires a thorough understanding of PB's antecedents. As mentioned earlier, PP, among various antecedents, is a decisive risk factor for parental burnout regardless of the cultural contexts. Taking steps at the macrosocial level to reduce parenting perfectionism is therefore crucial (for instance, by reducing peer-pressure on social networks). However, societal changes are often slow. Because our research demonstrated that parents' EC robustly offsets the detrimental effect of PP, increasing EC should greatly help perfectionist parents. And this can be done relatively quickly. Kotsou et al. (2011) has designed a 15-hr intervention to improve EC, which has been shown to increase EC level in a sustainable way. Our research result suggests that adapting this intervention program to parents with PP might help to prevent PB. Given the many benefits of improving EC (see Nelis et al., 2011 for review), intervening on EC might prove more cost-effective than intervening on parenting perfectionism alone. However, there definitely requires a study with an experimental research design to examine this proposal.

Despite the foregoing contributions to the literature and the implication, some limitations should be acknowledged. The most obvious one is that both studies relied on a cross-sectional and self-reported design, which prevents the drawing of causal inferences. Future studies would also certainly benefit from using multi-method data collection. The second limitation

is that we tested BR² theory (Mikolajczak & Roskam, 2018) using only two factors (one risk and one resource), contrary to the original paper (Mikolajczak & Roskam, 2018) in which many risks and resources were considered together. However, this limitation can also be seen as a strength, in that the current design constitutes a simpler test of the theory.

Table 1*Descriptive Statistics and Correlations in Both Studies*

Variables	Study 1	Study 2	1	2	3	4
	<i>M (SD)</i>	<i>M (SD)</i>				
1 Perfectionistic concerns	2.42 (0.97)	2.64 (0.96)	—	.72**	.29**	-.33**
2 Perfectionistic strivings	2.95 (1.09)	3.14 (0.99)	.64**	—	.19**	-.15**
3 Parental burnout	24.14 (26.37)	27.24 (25.81)	.29**	.20**	—	-.39**
4 Intrapersonal emotional competence	3.46 (0.52)	3.45 (0.53)	-.13*	-.08	-.32**	—
5 Interpersonal emotional competence	Not Applicable	3.52 (0.55)	-.10	.04	-.26**	.63**

Note. Correlations among variables in Study 1 (the Belgian sample) are shown above the diagonal. Correlations in Study 2 (the Polish sample) are shown below the diagonal.

* $p < .05$. ** $p < .01$.

Table 2

Main and Moderating Effects of Emotional Competence and Parenting Perfectionism on Parental Burnout

Model 1 ^a :						95% CI of <i>B</i>	
Adjusted <i>R</i> ² = .20***	<i>B</i>	<i>SE</i>	<i>β</i>	<i>t</i>	<i>p</i>	<i>LL</i>	<i>UL</i>
Step 1: Δ <i>R</i> ² = .08***							
PS	-1.19	1.96	-0.05	-0.61	0.544	-5.06	2.67
PC	8.53	1.96	0.32	4.34	0.000	4.66	12.39
Step 2: Δ <i>R</i> ² = .09***							
PS	0.31	1.88	0.01	0.16	0.870	-3.39	4.01
PC	4.61	1.97	0.18	2.35	0.020	0.74	8.48
Intrapersonal EC	-8.60	1.38	-0.33	-6.24	0.000	-11.31	-5.89
Step 3: Δ <i>R</i> ² = .04***							
PS	0.04	1.86	0.00	0.02	0.981	-3.61	3.70
PC	3.49	1.96	0.13	1.78	0.075	-0.36	7.34
Intrapersonal EC	-8.81	1.36	-0.33	-6.49	0.000	-11.48	-6.14
PS × Intrapersonal EC	1.30	1.85	0.05	0.70	0.483	-2.34	4.95
PC × Intrapersonal EC	-6.17	1.93	-0.24	-3.19	0.002	-9.97	-2.37
The effects of PC on parental burnout							
	<i>B</i>	<i>SE</i>	<i>β</i>	<i>t</i>	<i>p</i>	95% CI	
						<i>LL</i>	<i>UL</i>
1 <i>SD</i> below mean of intrapersonal EC	9.66	2.67	0.37	3.61	.000	4.40	14.91
1 <i>SD</i> above mean of intrapersonal EC	-2.68	2.82	-0.10	-0.95	.343	-8.23	2.87
Model 2 ^a :						95% CI of <i>B</i>	
Adjusted <i>R</i> ² = .18***	<i>B</i>	<i>SE</i>	<i>β</i>	<i>t</i>	<i>p</i>	<i>LL</i>	<i>UL</i>
Step 1: Δ <i>R</i> ² = .09***							

PS	0.56	1.67	0.02	0.34	.735	-2.72	3.84
PC	7.23	1.67	0.28	4.34	.000	3.95	10.51
Step 2: $\Delta R^2 = .08^{***}$							
PS	0.64	1.60	0.03	0.40	.688	-2.50	3.78
PC	6.22	1.60	0.24	3.88	.000	3.07	9.38
Intrapersonal EC	-7.37	1.23	-0.29	-5.99	.000	-9.79	-4.95
Step 3: $\Delta R^2 = .02^{**}$							
PS	0.95	1.58	0.04	0.60	.547	-2.15	4.06
PC	6.24	1.59	0.24	3.93	.000	3.12	9.36
Intrapersonal EC	-7.20	1.22	-0.28	-5.92	.000	-9.59	-4.81
PS $\times$ Intrapersonal EC	-0.99	1.55	-0.04	-0.64	.524	-4.04	2.06
PC $\times$ Intrapersonal EC	-3.00	1.50	-0.13	-2.00	.047	-5.96	-0.05
The effects of PC on parental burnout							
	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI	
						<i>LL</i>	<i>UL</i>
1 <i>SD</i> below mean of intrapersonal EC	9.24	2.12	.36	4.35	.000	5.06	13.42
1 <i>SD</i> above mean of intrapersonal EC	3.24	2.25	0.12	1.44	.151	-1.18	7.65
Model 3^a:							
Adjusted $R^2 = .17^{***}$	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI of <i>B</i>	
						<i>LL</i>	<i>UL</i>
Step 1: $\Delta R^2 = .09^{***}$							
PS	0.56	1.67	0.02	0.34	.735	-2.72	3.84
PC	7.23	1.67	0.28	4.34	.000	3.95	10.51
Step 2: $\Delta R^2 = .06^{***}$							
PS	1.69	1.63	0.07	1.04	.301	-1.52	4.90
PC	5.88	1.64	0.23	3.59	.000	2.66	9.10
Interpersonal EC	-6.32	1.25	-0.25	-5.04	.000	-8.78	-3.86
Step 3: $\Delta R^2 = .04^{***}$							
PS	2.03	1.61	0.08	1.27	.207	-1.13	5.19

Exploring the Roots of Parental Burnout from Contemporary Western Parenting Culture

PC	5.90	1.61	0.23	3.66	.000	2.73	9.07
Interpersonal EC	-5.95	1.23	-0.23	-4.82	.000	-8.37	-3.52
PS × Interpersonal EC	-1.10	1.52	-0.05	-0.72	.470	-4.10	1.90
PC × Interpersonal EC	-3.59	1.54	-0.15	-2.33	.020	-6.62	-0.57
The effects of PC on parental burnout							
	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI of <i>B</i>	
						<i>LL</i>	<i>UL</i>
1 <i>SD</i> below mean of interpersonal EC	9.49	2.15	.37	4.40	.000	5.25	13.73
1 <i>SD</i> above mean of interpersonal EC	2.30	2.30	.09	1.00	.317	-2.22	6.83

Note. The predictor variables were mean-centered before creating interaction terms to avoid multi-collinearity. CI = confidence interval; LL = lower limit; UL = upper limit. PS = perfectionistic strivings; PC = perfectionistic concerns; EC = emotional competence.

^a Model 1 (intrapersonal EC as moderator) was tested in the Belgian sample.

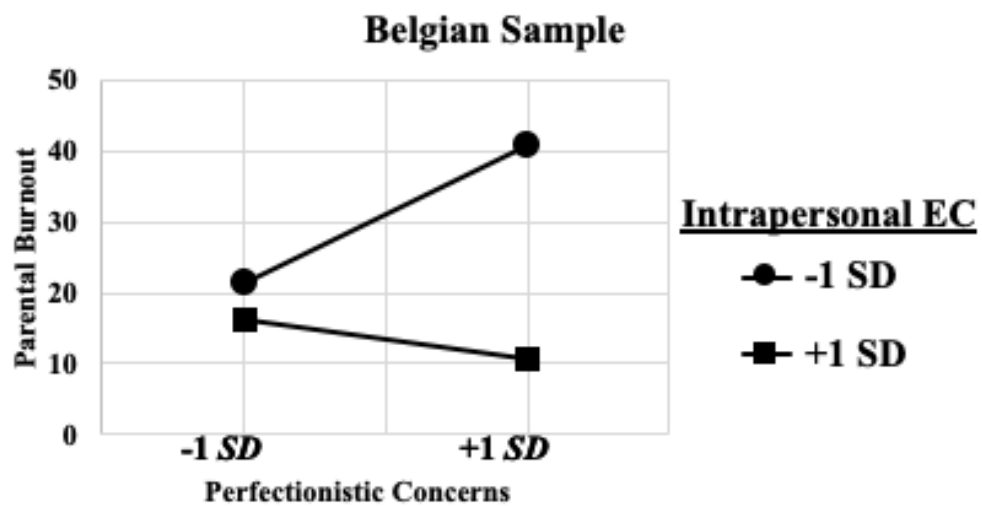
^b Model 2 (intrapersonal EC as moderator) was tested in the Polish Sample.

^c Model 3 (interpersonal EC as moderator) was tested in the Polish Sample.

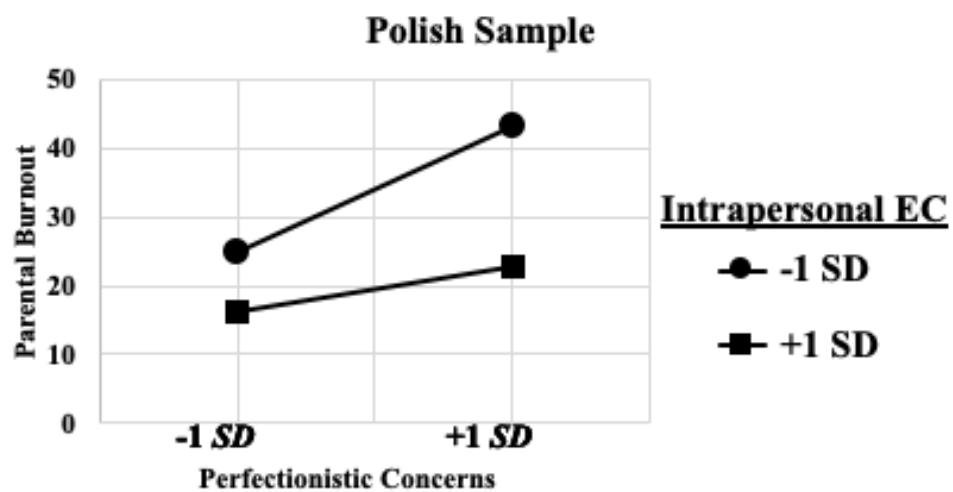
Figure 3.1

Interactional Plots of Emotional Competence Moderating the Effect of Perfectionistic Concerns on Parental Burnout

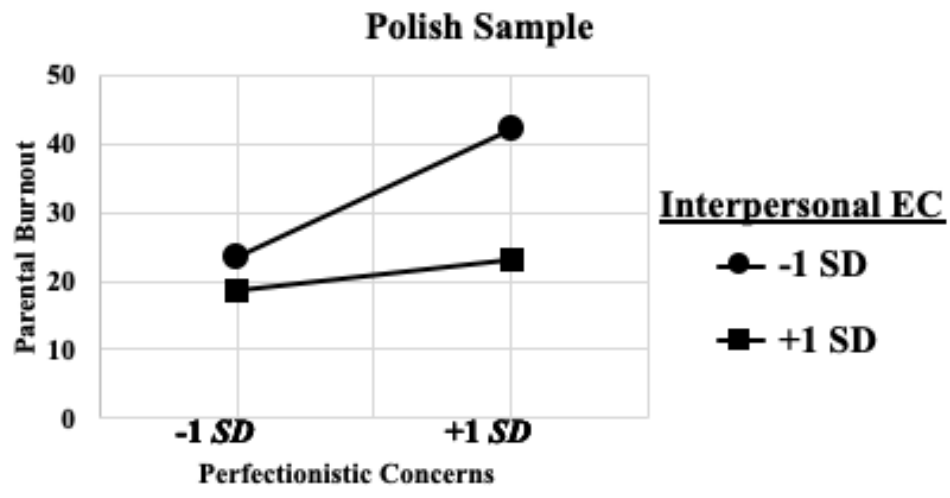
a.



b.



c.



a. Interactions Between Intrapersonal Emotional Competence and Perfectionistic Concerns in the Belgian sample. b. Interactions Between Intrapersonal Emotional Competence and Perfectionistic Concerns in the Polish sample. c. Interactions Between Interpersonal Emotional Competence and Perfectionistic Concerns in the Polish sample.

5. Supplementary material

5.1 Supplementary Analyses

To discover potential variables that may confound our result (variables that correlated with both predictors and outcome variables and thus cause spurious relation between predictors and outcome variables; see MacKinnon et al., 2000), we performed bivariate correlation analyses between our main predictors (i.e., perfectionistic concerns and perfectionistic strivings), outcome variable (i.e., parental burnout) and all demographic characteristics. In Study 1, the age of parent correlated with both parental burnout ($r(346) = -.19, p = .000$) and perfectionistic concerns ($r(346) = -.13, p = .013$); and “number of children” were found correlated with both parental burnout ($r(346) = -.11, p = .043$) and perfectionistic concerns ($r(346) = -.15, p = .004$). In Study 2, only “hours spent with children per day” was found correlated with both parental burnout ($r(376) = .13, p = .012$) and the predictors—perfectionistic concerns ($r(376) = .11, p = .028$) and perfectionistic strivings ($r(376) = .22, p = .000$).

After enrolling these variables into the concerned regression models, our results still remain similar (see Table S3.1). These additional analyses aligned with previous literature in that demographic characteristics usually have a small impact on parental burnout (e.g., Mikolajczak, Raes, et al., 2018), which makes other antecedents' predictive effect on parental burnout less vulnerable to confounding variables.

Table S3.1

Main and Moderating Effects of Emotional Competence and Parenting Perfectionism on Parental Burnout (With Control Variables)

Model 1^a: Adjusted $R^2 = .22^{***}$							95% CI of B	
	B	SE	β	t	p		LL	UL
Step 1: $\Delta R^2 = .04^{**}$								
Age of Parent	-0.50	0.17	-0.18	-2.96	0.003		-0.83	-0.17
Number of Children	-0.28	1.49	-0.01	-0.19	0.850		-3.21	2.65
Step 2: $\Delta R^2 = .07^{***}$								
Age of Parent	-0.44	0.16	-0.16	-2.70	0.007		-0.76	-0.12
Number of Children	0.49	1.45	0.02	0.34	0.733		-2.35	3.34
PS	-0.37	1.97	-0.01	-0.19	0.850		-4.24	3.50
PC	7.44	1.99	0.28	3.74	0.000		3.53	11.36
Step 3: $\Delta R^2 = .09^{***}$								
Age of Parent	-0.44	0.15	-0.16	-2.84	0.005		-0.75	-0.14
Number of Children	1.02	1.37	0.04	0.74	0.457		-1.68	3.73
PS	1.03	1.88	0.04	0.55	0.583		-2.66	4.73
PC	3.72	1.98	0.14	1.87	0.062		-0.18	7.62
Intrapersonal EC	-8.52	1.37	-0.32	-6.23	0.000		-11.21	-5.83
Step 4: $\Delta R^2 = .04^{***}$								
Age of Parent	-0.40	0.15	-0.15	-2.66	0.008		-0.70	-0.11
Number of Children	0.50	1.36	0.02	0.37	0.710		-2.16	3.17
PS	0.75	1.86	0.03	0.40	0.687		-2.91	4.40
PC	2.60	1.97	0.10	1.32	0.188		-1.27	6.48
Intrapersonal EC	-8.71	1.35	-0.33	-6.46	0.000		-11.36	-6.06
PS $\times$ Intrapersonal EC	1.47	1.84	0.06	0.80	0.424		-2.15	5.10
PC $\times$ Intrapersonal EC	-6.19	1.93	-0.23	-3.21	0.001		-9.98	-2.40
The effects of PC on parental burnout								
	B	SE	β	t	p		95% CI	
							LL	UL
1 SD below mean of intrapersonal EC	8.79	2.66	.33	3.30	.001		3.55	14.03
1 SD above mean of intrapersonal EC	-3.59	2.84	-.14	-1.26	.208		-9.18	2.01
Model 2^a: Adjusted $R^2 = .18^{***}$								
	B	SE	β	t	p		95% CI of B	
							LL	UL
Step 1: $\Delta R^2 = .02^*$								
Hours spent with children	1.02	0.40	0.13	2.54	0.012		0.23	1.81
Step 2: $\Delta R^2 = .08^{***}$								
Hours spent with children	0.77	0.40	0.10	1.94	0.053		-0.01	1.55
PS	-0.07	1.69	-0.00	-0.04	0.968		-3.40	3.26
PC	7.35	1.66	0.28	4.42	0.000		4.08	10.62
Step 3: $\Delta R^2 = .08^{***}$								
Hours spent with children	0.70	0.38	0.09	1.85	0.065		-0.04	1.45
PS	0.06	1.62	0.00	0.04	0.969		-3.12	3.25
PC	6.34	1.60	0.25	3.96	0.000		3.20	9.49

Intrapersonal EC	-7.30	1.23	-0.28	-5.95	0.000	-9.71	-4.89
Step 4: $\Delta R^2 = .02^{**}$							
Hours spent with children	0.59	0.38	0.07	1.57	0.118	-0.15	1.33
PS	0.45	1.61	0.02	0.28	0.778	-2.71	3.61
PC	6.34	1.59	0.25	4.00	0.000	3.22	9.46
Intrapersonal EC	-7.15	1.21	-0.28	-5.89	0.000	-9.54	-4.76
PS $\times$ Intrapersonal EC	-0.93	1.55	-0.04	-0.60	0.549	-3.98	2.12
PC $\times$ Intrapersonal EC	-2.89	1.50	-0.12	-1.92	0.055	-5.84	0.07
The effects of PC on parental burnout							
	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI	
						<i>LL</i>	<i>UL</i>
1 <i>SD</i> below mean of intrapersonal EC	9.23	2.12	0.36	4.35	0.000	5.06	13.40
1 <i>SD</i> above mean of intrapersonal EC	3.45	2.25	0.13	1.53	0.126	-0.97	7.87
Model 3^a:							
Adjusted $R^2 = .19^{***}$	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI of <i>B</i>	
						<i>LL</i>	<i>UL</i>
Step 1: $\Delta R^2 = .02^*$							
Hours spent with children	1.02	0.40	0.13	2.54	0.012	0.23	1.81
Step 2: $\Delta R^2 = .08^{***}$							
Hours spent with children	0.77	0.40	0.10	1.94	0.053	-0.01	1.55
PS	-0.07	1.69	0.00	-0.04	0.968	-3.40	3.26
PC	7.35	1.66	0.28	4.42	0.000	4.08	10.62
Step 3: $\Delta R^2 = .06^{***}$							
Hours spent with children	0.75	0.38	0.10	1.96	0.051	0.00	1.51
PS	1.07	1.66	0.04	0.64	0.520	-2.19	4.32
PC	6.01	1.63	0.23	3.68	0.000	2.80	9.22
Interpersonal EC	-11.48	2.28	-0.24	-5.04	0.000	-15.95	-7.00
Step 4: $\Delta R^2 = .03^{**}$							
Hours spent with children	0.61	0.38	0.08	1.62	0.107	-0.13	1.36
PS	1.51	1.63	0.06	0.93	0.355	-1.70	4.72
PC	5.99	1.61	0.23	3.72	0.000	2.83	9.16
Interpersonal EC	-10.83	2.24	-0.23	-4.83	0.000	-15.24	-6.42
PS $\times$ Interpersonal EC	-1.00	1.52	-0.04	-0.66	0.512	-3.99	1.99
PC $\times$ Interpersonal EC	-3.50	1.54	-0.15	-2.28	0.023	-6.53	-0.48
The effects of PC on parental burnout							
	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI of <i>B</i>	
						<i>LL</i>	<i>UL</i>
1 <i>SD</i> below mean of interpersonal EC	9.50	2.15	0.37	4.42	0.000	5.27	13.72
1 <i>SD</i> above mean of interpersonal EC	2.49	2.30	0.10	1.08	0.280	-2.03	7.01

Note. The predictor variables were mean-centered before creating interaction terms to avoid multi-collinearity. CI = confidence interval; LL = lower limit; UL = upper limit. PS = perfectionistic strivings; PC = perfectionistic concerns; EC = emotional competence.

^a Model 1 (intrapersonal EC as moderator) was tested in the Belgian sample.

^b Model 2 (intrapersonal EC as moderator) was tested in the Polish Sample.

^c Model 3 (interpersonal EC as moderator) was tested in the Polish Sample.

Table S3.2*The Brief Parenting Perfectionism Scale*

No.	Item Description (French Version)	Item Description (Polish Version)	Item Description (English Translation)
Perfectionistic Strivings (PS)			
1	En tant que parent, je n'attends de moi rien de moins que la perfection.	Jako rodzic oczekuję od siebie doskonałości.	As a parent, I expect nothing less than perfection.
2	J'ai des standards élevés en tant que parent.	Mam wysokie standardy jako rodzic.	I have high standards as a parent.
3	Je vise à être un parent parfait.	Moim celem jest bycie idealnym rodzicem.	I aim to be a perfect parent.
Perfectionistic Concerns (PC)			
4	En tant que parent, c'est affreux d'échouer devant des autres.	Poczucie, że zawiodłam/łam jako rodzic byłoby dla mnie straszne.	As a parent, it's awful to fail in front of others.
5	En tant que parent, si ce n'est pas parfait, ce n'est pas une réussite.	Wiele od siebie wymagam jako rodzic bo satysfakcjonuje mnie tylko idealne wypełnianie roli rodzicielskiej.	As a parent, if it's not perfect, it's not a success.
6	En tant que parent, si j'ai échoué en partie, c'est aussi grave que d'avoir totalement échoué.	Nawet niewielki błąd przy wychowaniu dzieci odbieram to jako zupełną porażkę.	As a parent, if I failed in part, it's as bad as if I failed completely.

Chapter 4 Child-Oriented Perfectionism and Parental Burnout: The Moderating Role of Parents' Emotional Intelligence

Child-Oriented Perfectionism and Parental Burnout: The Moderating Role of Parents' Emotional Intelligence

Abstract

Is it possible that striving for flawlessness and perfection in their children's performance is detrimental to parents? Could it be so harmful that it exposes parents to the risk of burnout? In order to answer these questions, this study adopted a three-dimension model of child-oriented perfectionism (encompassing three dimensions: high standards, order, and discrepancy) and examined the association of these dimensions with parental burnout. The participants were 325 Polish parents (78.8% mothers) who lived in the same household with at least one child aged 3 to 19 years. The results showed that discrepancy—parents' perception that their children failed to meet their standards and expectations—was a crucial dimension of child-oriented perfectionism that put parents at risk of burnout; however, parents' emotional intelligence mitigated such harmful effects. The study contributes to knowledge about the antecedents of parental burnout and provides insight into possible interventions to counter the risk of striving as parents for perfect children.

Reference

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1. Introduction

It is hard to deny that perfectionism has become the zeitgeist in recent decades (Curran & Hill, 2019; Hewitt & Flett, 1991; M. M. Smith et al., 2021). People nowadays set excessively high standards and engage in overly critical self-evaluation in almost every aspect of their lives. The pursuit of flawlessness and perfection even extends to such a private sphere of life as parenting. Some parents set high standards for themselves in striving for perfect childcare practices (Snell et al., 2005); others focus on their children and expect perfection in their performance (Mitchelson & Burns, 1998; Piotrowski, 2020). Earlier research has shown that striving to be the best parent elevates parental stress and puts parents at risk of burnout (Kawamoto et al., 2018; Lin, Szczygieł, et al., 2023; Lin & Szczygieł, 2022b; Sorkkila & Aunola, 2020)⁹. What is not known is whether striving to have the best possible child places parents under excessive strain, leading to burnout. The present study addresses this issue and explores the relations between child-oriented perfectionism and parental burnout.

1.1 Parental Burnout

Parental burnout is an affective syndrome in which parents experience overwhelming exhaustion related to their parental role, emotional distancing from their children, a loss of parental fulfillment, and a perceived contrast between they used to feel in the past and how they feel about parenting today (Roskam et al., 2018). This syndrome has been described as one of the most worrying public health concerns in recent decades (Gruber et al., 2020; Mikolajczak et al., 2021). There are good reasons why parental burnout deserves so much attention. First, it leads to harmful consequences: Parental burnout endangers not only parents' health (e.g., suicidal ideation; Mikolajczak et al., 2019) but also that of their children (e.g., depression; B. Yang et al., 2021). Second, parental burnout is highly prevalent globally; on average, 5% of parents currently suffer from this syndrome (and as high as 9% in Western countries; Roskam, Aguiar, et al., 2021). Given the dangerous consequences and high prevalence of this syndrome, there is an urgent need to extend knowledge about the etiological factors of parental burnout to prevent its development.

1.2 Child-Oriented Perfectionism as a Risk Factor for Parental Burnout

Of all the etiological factors studied, parents' ability to manage their emotions, personality traits, values, beliefs, etc. appear relevant (e.g., Le Vigouroux et al., 2017; Lin, Goldenberg, et al., 2022; Lin, Roskam, et al., 2021; Vertsberger et al., 2022; for a full review; see Mikolajczak, Raes, et al., 2018; Mikolajczak et al., 2021; Mikolajczak & Roskam, 2018). For

⁹ As mentioned earlier, in their study, Sorkkila and Aunola (2020) focused on general perfectionism, rather than specifically examining parenting perfectionism.

instance, a recent study showed that parents are more susceptible to burnout when they prioritize power and achievement values and are less interested in prosocial goals and serving others (Lin & Szczygieł, 2022a). According to previous research, such tendencies characterize perfectionists (Zacharopoulos et al., 2021). Bearing this in mind, it is no wonder that parenting perfectionism—the pursuit of perfect childcare practices (Snell et al., 2005)—has been identified as a notable etiological factor in parental burnout (Kawamoto et al., 2018; Lin, Szczygieł, et al., 2023; Lin & Szczygieł, 2022b; Sorkkila & Aunola, 2020). However, parenting takes place in a complex relational context involving both parents and children. Thus, parents who strive for excellence may expect perfection not only from themselves (i.e., parenting perfectionism), but also from their children (i.e., child-oriented perfectionism; Piotrowski, 2020).

Like parenting perfectionism, child-oriented perfectionism can be destructive to parents as it exposes them to great effort, disappointment, and emotional distress (Piotrowski, 2020). First, it requires parents to set high standards and goals and constantly monitor progress (Kleszewski & Otto, 2020; Stoeber, 2015). Second, such efforts are usually exhausting. Parents need to communicate with their children and persuade them to comply with parental standards (see Stoeber, 2015), involving repeated negotiations (see Kleszewski & Otto, 2020) and generating conflicts with their children (Barber et al., 2012; Smetana & Rote, 2019). Finally, if the children have not met their expectations, disappointed perfectionist parents may attribute the children's failure to their own incompetence (see Mitchelson & Burns, 1998). As a result, parents may experience decreased self-confidence (see Hubert & Aujoulat, 2018). Altogether, when such exhausting struggles and negative self-evaluation are experienced continuously or to a significant degree, they accumulate and become a significant source of parenting stress (Crnic & Low, 2002).

Child-oriented perfectionism is a multidimensional concept that encompasses three dimensions: high standards (i.e., setting high expectations for children and expecting them to be perfect), order (i.e., expecting children to be well organized and tidy), and discrepancy (i.e., the perception that the child does not meet the standards set by the parent; Piotrowski, 2020). Earlier studies found that child-oriented perfectionism dimensions differed in their effects on parenting stress: While high standards and order were insignificantly linked with parenting stress, discrepancy was significantly positively associated with parenting stress. This implies that discrepancy may be key factor in child-oriented perfectionism that drives parents into burnout. This is not surprising, as perceiving the discrepancy between parental expectations and children's actual achievements is likely to trigger constant emotional distress (M. M. Smith et al., 2020), including dissatisfaction and disappointment at not having an ideal child (Piotrowski, 2020). When people do not have sufficient help to mitigate harm and experience chronic negative emotions in this way, they become stressed and exhausted (Pama et al., 2018).

1.3 Emotional Intelligence as a Protective Factor for Parental Burnout

According to the Balance between Risks and Resources (BR²) theory of parental burnout,

parental burnout is not the product of a single personality trait, such as the perfectionism under consideration here, but results from a chronic imbalance between risk and protective factors in the parental domain (Mikolajczak & Roskam, 2018). Protective factors can thus be assumed to compensate for the harm caused by risk factors, provided that these factors have the same weight as the risk factors. Among the protective factors with the potential to compensate in this way, parents' emotional intelligence—individual differences in how people functionally identify, express, understand, regulate and use their own and others' emotions (Mayer & Salovey, 1997; Petrides et al., 2016)—merits our attention. Earlier studies have shown that emotional intelligence buffers the positive association between parenting perfectionism and parental burnout in different cultural settings (Lin, Szczygieł, et al., 2023), and that emotional intelligence mitigates the detrimental effects of maladaptive emotion regulation stemming from parenting perfectionism (Lin & Szczygieł, 2022b). Such evidence highlights the possibility that parents' emotional intelligence could be strong enough to offset the emotional costs of discrepancy.

1.4 The Present Study

Building upon the BR² and the abovementioned findings, we expected a positive relation between the discrepancy dimension of child-oriented perfectionism and parental burnout (Hypothesis 1). We also predicted that emotional intelligence would be found to buffer this adverse effect of discrepancy (Hypothesis 2) and expected the relation between discrepancy and parental burnout to be stronger for parents low in emotional intelligence (vs. those high in emotional intelligence). We also decided to explore whether child-oriented perfectionism's high standards and order dimensions predict parental burnout and whether parents' emotional intelligence moderates these relationships.

2. Method

2.1 Participants and Procedure

Data were collected from a sample of 325 Polish parents ($M_{age} = 38.9$ years, $SD_{age} = 5.98$ years; 78.8% mothers) who lived in the same household with at least one child. The number of children in the participating families ranged from 1 to 5 ($M = 1.95$, $SD = 0.88$). The parents' youngest child (or only child) was aged 3 to 19 years ($M_{age} = 8.42$ years, $SD_{age} = 5.06$ years). The participants reported spending on average of 7 hours per day ($M = 7.11$, $SD = 4.46$) in direct contact with their child(ren), excluding bedtime and simply sharing the same household. Among the participants, 2.2% were educated to primary level, 19.4% were educated to secondary level, 26.8% had an undergraduate degree, and 51.7% had a university degree. Regarding their employment status, 73.2% had a paid professional activity. As regards their family type, 80.6% were raising their child/children with the father/mother of the child(ren), 8.0% were single parents, 5.8% were in a blended family, and 2.6% were raising children in a multi-generational household.

2.2 Measures

2.2.1 Child-Oriented Perfectionism

Child-oriented perfectionism was measured with the Children Dyadic Almost Perfect Scale (C-DAPS, Piotrowski, 2020). The C-DAPS is 23-item questionnaire consisting of three subscales: high standards (6 items, e.g. “I have a strong need for my child/ren to strive for excellence”), order (4 items, e.g. “I think my child/ren should be organized”), and discrepancy (13 items, e.g. “My children/child often do(es) not measure up to my expectations”). Items are rated on a 7-point Likert scale: from *completely disagree* (1) to *completely agree* (7). Scale scores were calculated by averaging the responses to the items associated with each child-oriented perfectionism dimension.

2.2.2 Emotional Intelligence

Emotional intelligence was measured with the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF, Petrides, 2009; Polish version by Szczygieł et al., 2015). This is a 30-item questionnaire (e.g., “Expressing my emotions with words is not a problem for me”). Items are rated on a 7-point Likert scale: from *completely disagree* (1) to *completely agree* (7). Scale scores were calculated by averaging the responses to the items after appropriate items had been reversed.

2.2.3 Parental Burnout

Parental burnout was assessed with the Parental Burnout Assessment (PBA, Roskam et al., 2018; Polish version by Szczygieł et al., 2020), a 23-item questionnaire assessing the four core symptoms of parental burnout: emotional exhaustion (9 items; e.g., “I feel completely run down by my role as a parent”), contrast with previous parental self (6 items; e.g., “I tell myself I’m no longer the parent I used to be”), feelings of being fed up (i.e., loss of pleasure in one’s parental role; 5 items; e.g., “I don’t enjoy being with my children”), and emotional distancing from one’s children (3 items; e.g., “I am no longer able to show my children that I love them”). PBA items are rated on a 7-point Likert scale from *never* (0) to *every day* (6). The total score was computed by summing the item scores so that higher scores indicated greater burnout.

3. Results

We tested our hypotheses with correlation and hierarchical regression analyses using SPSS 25. Descriptive statistics and Pearson correlations among study variables are presented in Table 4.1. In the regression analyses, the three child-oriented perfectionism scales were entered simultaneously as a potential predictor of parental burnout in the first step; emotional intelligence was entered in the second step; and the two-way multiplicative terms between emotional intelligence and the three child-oriented perfectionism scales were then entered simultaneously in the third step. These predictor variables were mean-centered before interaction terms were created, in order to avoid multi-collinearity. The regression results are summarized in Table 4.2.

Regarding child-oriented perfectionism's main effects, a positive association of discrepancy with parental burnout emerged, confirming Hypothesis 1 (see Table 4.1 and Regression Model A in Table 4.2). In addition, although there was no significant correlation between high standards and parental burnout (see Table 4.1), high standards negatively predicted parental burnout when the effects of the other two child-oriented perfectionism scales were taken into account (see Regression Model A in Table 4.2). This may be due to the elimination of the suppression effect of high standards by controlling for their shared variance with discrepancy (see MacKinnon et al., 2000). There was a clear relation between emotional intelligence and parental burnout (see Table 4.1), and such an effect remained significant even when the child-oriented perfectionism scales were controlled for (see Regression Model B in Table 4.2).

The model including the predictors, moderator, and interaction terms (Regression Model C) fitted the data better ($\Delta R^2 = .04, p = .000$) than the model with only the predictors and moderator (Regression Model B). In particular, the interaction term of discrepancy and emotional intelligence was significant in predicting parental burnout (see Regression Model C in Table 4.2). Simple slope tests (with the interaction plot presented in Figure 4.1) were then performed and revealed that the positive predictive effects of discrepancy decreased as emotional intelligence increased from low ($\beta = .54, b = 14.69, SE = 1.65, p = .000$) to high ($\beta = .16, b = 4.40, SE = 1.89, p = .021$). This finding confirmed the buffering effect of emotional intelligence, thus supporting Hypothesis 2.

4. Discussion

This study is the first in the parental burnout literature to include the aspect of perfectionism directed at one's children (i.e., child-oriented perfectionism) as an etiological factor for parental burnout. In line with our expectations, the results demonstrated that discrepancy—the perception that a child fails to meet the high standards that a parent has set for them—is a crucial dimension of child-oriented perfectionism that puts parents at risk of parental burnout. Moreover, the negative association of high standards with parental burnout shows that it is not setting high expectations for the child that jeopardizes parents, but rather the perception that the child is not meeting those standards. This finding is consistent with those from studies on expecting excellence in a romantic partner (e.g., Shea et al., 2006b).

Our study goes a step further by showing that parents' emotional intelligence mitigates such adverse effects of discrepancy: Parents who reported higher discrepancy had more symptoms of parental burnout, but this relation was more salient among low emotional intelligence parents. This finding corroborates prior studies showing that emotional intelligence is a strong positive predictor of well-being and mental health (Petrides et al., 2016). However, it should also be noted that emotional intelligence only partially cancels out the adverse effects of child-oriented perfectionism on parental burnout. This may be because parents who demand perfection from their children need to manage their own and their children's emotions; future researchers may consider examining the role of interpersonal

emotional intelligence and emotion regulation strategies in the child-oriented perfectionism-parental burnout association¹⁰.

Our research suggests the importance of situating people's pursuit of perfection in others in context. The picture that emerged from previous studies of the consequences of other-oriented perfectionism was inconsistent. Although some studies showed its beneficial effect (e.g., higher well-being, Birch et al., 2019; lower job burnout, Childs & Stoeber, 2010), other studies found that it was neither adaptive nor damaging (Stoeber & Corr, 2016). Together with previous findings (Mitchelson & Burns, 1998; Piotrowski, 2020), our study indicates that the consequences of other-oriented perfectionism for a parent are wholly deleterious when the target is children (i.e., child-oriented perfectionism) who fail to meet expectations. One of the reasons why child-oriented perfectionism is detrimental may be the ubiquity of intensive norms in modern parenting—ideal parents should be warm, supportive, and not the opposite (see Faircloth, 2014; Lin, Hansotte, et al., 2021)—that contradict what child-oriented perfectionism drives parents to do (e.g., argue and negotiate with children about expectations; Barber et al., 2012; Smetana & Rote, 2019). This contradiction places a burden on perfectionistic parents; as it unfolds, it would not be surprising if parents with higher child-oriented perfectionism become exhausted. However, future studies are needed to validate these predictions.

These findings also have practical implications. One might expect that the best way to avoid the negative consequences of child-oriented perfectionism is to directly draw parents' attention to its adverse effects and convince parents to stop comparing their own children with an unrealistic image of an ideal child or setting unrealistic expectations for their children. This seems obvious, but it is often challenging to change parents' attitudes. Our study suggests another solution: Given the buffering effect of emotional intelligence shown in our study, we believe that the risk of parental burnout due to child-oriented perfectionism can be minimized if parents enhance their emotional intelligence. In other words, it could be fruitful and helpful for practitioners to provide parents who exhibit higher child-oriented perfectionism with psychological help aimed at improving their emotional intelligence as parents, including skills such as identifying, understanding, regulating and using emotions (Mayer & Salovey, 1997). We find cause for optimism in recent findings showing that emotional intelligence training is effective even when it is as short as just four two-and-a-half-hour group training sessions (Kotsou et al., 2019). What is needed now, however, is experimental or treatment research.

Before concluding this article, at least three limitations of the current study should be acknowledged. The first limitation lies in the sample: Most respondents were mothers. It is therefore unclear whether our findings are equally relevant to fathers. However, as shown in

¹⁰ Caution should be warranted because, although child-oriented perfectionism and emotional intelligence are theoretically categorized as risk/vulnerability (or even etiological) factors and resource/protective factor respectively, this study does not have sufficient evidence to support this categorization due to the cross-sectional and correlational study design employed.

the complementary analyses (see S1. Supplementary Analyses in supplementary material), when parents' gender and its interaction with all predictors and with the moderator in the analyses are included, our main results remain similar, suggesting little (if any) possibility that our results may differ according to parents' gender. Second, our data relied exclusively on self-report instruments, which could lead to concerns about common method variance. Future researchers might consider using diaries and quasi-experimental research projects to address this issue. Third, the study used a cross-sectional design that precludes making causality claims. Future longitudinal studies might clarify the reciprocal nature of the relationships examined here. Despite the limitations mentioned above, we believe that our study deserves attention as it extends knowledge about the determinants of parental burnout, provides inspiration for new research, and puts forward practical implications.

4.1 Conclusion

This is the first empirical study to explore the relations between child-oriented perfectionism and parental burnout. The results show that child-oriented perfectionism, specifically its discrepancy dimension—parents' perception that their child is not meeting their standards—puts parents at risk of burnout. However, this adverse effect of child-oriented perfectionism may be mitigated by higher levels of emotional intelligence in parents.

Table 4.1*The Cronbach's α s, Means, Standard Deviations, and Correlations Among Study Variables*

Variables	<i>M</i>	<i>SD</i>	α	1	2	3	4
1. Parental burnout	29.32	27.02	.97				
2. High Standards	3.32	1.18	.86	0.07			
3. Order	5.12	1.12	.84	0.10	0.38***		
4. Discrepancy	2.25	0.86	.92	0.48***	0.44***	0.30***	
5. Emotional intelligence	4.94	0.90	.90	-0.53***	-0.01	-0.12*	-0.32***

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4.2*The Summary of Multiple Regressions*

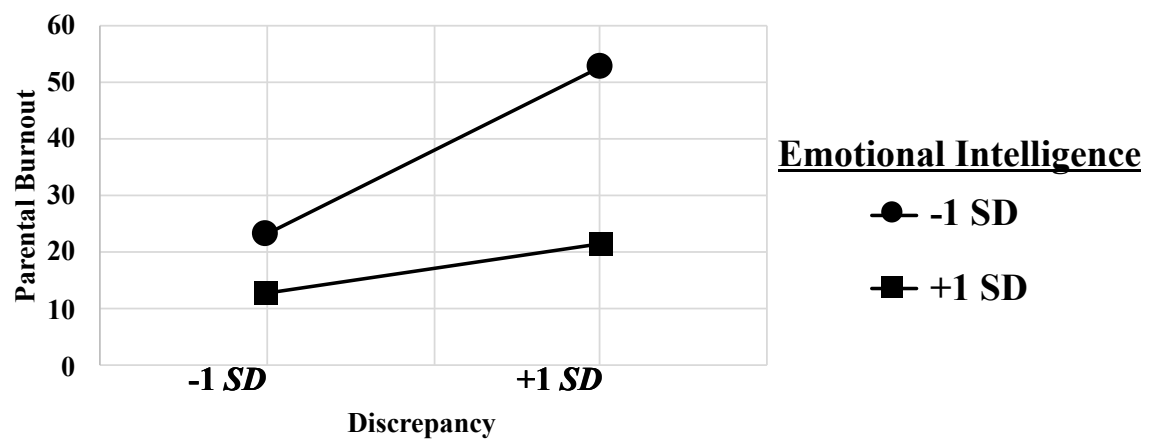
Variables	β	b	SE	t	p	95% CI of b	
						LL	UL
Regression Model A (Predictors Enrolled)							
High Standards	-0.17	-4.61	1.52	-3.04	.003	-7.59	-1.63
Order	0.00	0.07	1.43	0.05	.961	-2.74	2.88
Discrepancy	0.55	14.94	1.47	10.18	.000	12.05	17.82
F(3, 321) = 36.22***; R ² = .25; adjusted R ² = .25							
Variables	β	b	SE	t	p	95% CI of b	
						LL	UL
Regression Model B (Moderator Enrolled)							
High Standards	-0.10	-2.62	1.39	-1.89	.060	-5.34	0.11
Order	-0.03	-0.71	1.29	-0.55	.582	-3.25	1.83
Discrepancy	0.40	10.78	1.41	7.66	.000	8.01	13.55
Emotional Intelligence	-0.40	-10.87	1.26	-8.62	.000	-13.35	-8.39
F(4, 320) = 51.96***; R ² = .39; adjusted R ² = .39							
Variables	β	b	SE	t	p	95% CI of b	
						LL	UL
Regression Model C (Interaction Terms Enrolled)							

High Standards	-0.09	-2.46	1.35	-1.82	.069	-5.12	0.19
Order	-0.04	-0.98	1.28	-0.77	.444	-3.49	1.53
Discrepancy	0.35	9.55	1.40	6.83	.000	6.79	12.30
Emotional Intelligence	-0.38	-10.33	1.24	-8.33	.000	-12.77	-7.89
Emotional Intelligence × High Standards	0.09	2.22	1.23	1.81	.071	-0.19	4.63
Emotional Intelligence × Order	-0.03	-0.78	1.24	-0.63	.531	-3.22	1.66
Emotional Intelligence × Discrepancy	-0.23	-5.15	1.09	-4.72	.000	-7.30	-3.00

$F(7, 317) = 35.22^{***}$; $R^2 = .44$; adjusted $R^2 = .42$

Figure 4.1

Interaction Plot



5. Supplementary Material

5.1 Supplementary Analyses

Recent studies indeed consistently demonstrated that parents' gender plays a crucial role in both prevalence and vulnerability to the antecedents of parental burnout (Roskam & Mikolajczak, 2020a). On the one hand, mothers reported more symptoms of parental burnout than fathers; on the other hand, fathers, compared to mothers, may have higher vulnerability to the antecedents to parental burnout (see Roskam & Mikolajczak, 2020a). It is crucial to explore the role of gender in the association among the association between child-oriented perfectionism, emotional intelligence, and parental burnout. We explored this research question in the following ways.

First, we performed independent-sample t-tests to compare whether fathers and mothers differ in their three child-oriented perfectionism dimensions, emotional intelligence, and parental burnout. In line with previous findings (see Roskam & Mikolajczak, 2020), compared to fathers ($M = 23.10$, $SD = 26.74$), mothers ($M = 30.99$, $SD = 26.90$) reported more serious parental burnout symptoms ($t(323) = 2.16$, $p = .031$). As regards child-oriented perfectionism, similar to Piotrowski (2020), we found that compared to mothers ($M = 3.24$, $SD = 1.15$), fathers ($M = 3.62$, $SD = 1.25$) set higher standards for their children ($t(323) = -2.37$, $p = .018$); compared to mothers ($M = 2.17$, $SD = 0.82$), fathers ($M = 2.52$, $SD = 0.96$) also perceived higher discrepancy on their children's performance ($t(323) = -2.99$, $p = .003$). There is no significant difference for the order ($t(323) = 0.99$, $p = .322$). We also found no significant difference for emotional intelligence ($t(323) = -1.24$, $p = .214$).

Second, we followed our primary analysis strategy as presented in the manuscript but further included dummy coded parents' gender (0 = mothers, 1 = fathers) and its interaction with three child-oriented perfectionism dimensions (gender*high standards, gender*order, gender*discrepancy) as well as emotional intelligence (gender*emotional intelligence). This procedure was done to examine whether the interplay between gender and our predictors would influence or confound our findings. As shown in Table S4.1, although parents' gender significantly predicted parental burnout in all regression models, its interactions with all our predictors did not. It showed that parents' gender cannot moderate the effects of all our study variables on parental burnout. Of interest to the current study is that even with these variables controlled for, our main findings remain similar, suggesting little (if any) confounding effect from parents' gender.

Table S4.1*Regression Coefficients for the Tested Models (with Parents' Gender Considered)*

Variables	β	b	SE	t	p	95% CI of b	
						LL	UL
Regression Model A (Predictors Enrolled)							
Gender	-0.20	-13.03	3.19	-4.09	.000	-19.30	-6.76
High Standards	-0.15	-3.98	1.49	-2.67	.008	-6.90	-1.05
Order	-0.03	-0.71	1.41	-0.51	.613	-3.48	2.06
Discrepancy	0.58	15.77	1.45	10.90	.000	12.92	18.61
F(4, 320) = 32.68***; R ² = .29; adjusted R ² = .28							
Variables	β	b	SE	t	p	95% CI of b	
						LL	UL
Regression Model B (Moderator Enrolled)							
Gender	-0.16	-10.27	2.91	-3.53	.000	-16.00	-4.54
High Standards	-0.08	-2.21	1.37	-1.62	.107	-4.90	0.48
Order	-0.05	-1.29	1.28	-1.01	.313	-3.81	1.23
Discrepancy	0.43	11.63	1.40	8.28	.000	8.86	14.39
Emotional Intelligence	-0.38	-10.37	1.25	-8.32	.000	-12.82	-7.92
F(5, 319) = 45.54***; R ² = .42; adjusted R ² = .41							

Variables	β	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI of <i>b</i>	
						<i>LL</i>	UL
Regression Model C (Interaction Terms Enrolled)							
Gender	-0.16	-10.22	2.99	-3.42	.001	-16.10	-4.35
High Standards	-0.11	-2.92	1.52	-1.92	.056	-5.91	0.08
Order	-0.02	-0.60	1.41	-0.42	.673	-3.38	2.18
Discrepancy	0.39	10.45	1.61	6.50	.000	7.29	13.61
Emotional Intelligence	-0.37	-10.07	1.43	-7.03	.000	-12.89	-7.26
Emotional Intelligence $\times$ High Standards	0.08	1.89	1.26	1.50	.134	-0.59	4.37
Emotional Intelligence $\times$ Order	-0.02	-0.40	1.29	-0.31	.757	-2.94	2.14
Emotional Intelligence $\times$ Discrepancy	-0.22	-4.87	1.11	-4.37	.000	-7.05	-2.68
Gender $\times$ High Standards	0.06	3.02	3.27	0.92	.357	-3.42	9.46
Gender $\times$ Order	-0.07	-4.20	3.24	-1.29	.196	-10.58	2.18
Gender $\times$ Discrepancy	0.01	0.30	3.45	0.09	.932	-6.49	7.09
Gender $\times$ Emotional Intelligence	0.01	0.66	3.24	0.20	.839	-5.72	7.04

$F(12, 312) = 22.13^{***}$; $R^2 = .46$; adjusted $R^2 = .44$

Note. *b* = unstandardized regression coefficient. β = standardized regression coefficient. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

*** $p < .001$. ** $p < .010$.

Chapter 5 Reappraisal, Social Support, and Parental Burnout

Reappraisal, Social Support, and Parental Burnout

Abstract

Parental burnout is a prevalent condition that affects parents' functioning and health. While various protective factors have been examined, little is known about their interplay. In the current study, we examined the joint effect of two protective factors against parental burnout (one external—social support, and one internal—cognitive reappraisal). We were specifically interested in whether the presence of one factor could compensate for the lack of the other. To address this question, 1,835 participants were drawn from five countries: United States, Poland, Peru, Turkey, and Belgium. Results suggested that both social support and cognitive reappraisal were associated with lower parental burnout. An interaction was also found between the resource factors, such that the presence of cognitive reappraisal compensated for the absence of social support. These findings point to ways in which parental burnout could be reduced, especially in situations where social support is not easily available.

Reference

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1. Introduction

Imagine a couple who are parents to several children. In the past, they were extremely engaged parents, attending to their children's emotional and physical needs. Recently, however, they have begun to feel increasingly exhausted in their parenting role. This exhaustion has progressively led them to distance themselves from their children. They love their children, but no longer take pleasure in parenting. These parents are experiencing what is known as parental burnout (Mikolajczak et al., 2019; Roskam et al., 2018).

Unlike ordinary and transient parenting stress, parental burnout is a chronic stress-related syndrome experienced in the parental role. It denotes chronic suffering that occurs when parents' resources are unable to compensate for their parenting stress over a chronic period (cf. three months). Parental burnout as a chronic syndrome is not only evident in how parents feel but also manifested in parents' bodies. Studies have shown that parental burnout can cause a dysregulation in the hypothalamic-pituitary-adrenal axis, leading to elevated hair cortisol levels over three months. Specifically, the cortisol level of burnout parents can be twice as high as that of demographically matched counterparts (Brianda, Roskam, & Mikolajczak, 2020) and even higher than that of patients with severe chronic pain (see Mikolajczak et al., 2021). This finding further indicates how intensely burnout parents can suffer.

Alongside such intense suffering, parental burnout carries a plethora of negative consequences for both concerned parents and their children. On the parents' side, studies have shown parental burnout significantly deteriorates parents' mental and physical health, e.g., increased suicidal ideations, and parental behaviors, e.g., increased neglect and violence (Brianda, Roskam, Gross, et al., 2020; Mikolajczak et al., 2019). On the children's side, parental burnout jeopardizes children's mental health, e.g., increased depressive symptoms (B. Yang et al., 2021). Parental burnout explains the occurrence of these consequences even after controlling for the effects of other indicators of parental well-being, such as parental depressive symptoms (Mikolajczak et al., 2020). Taken together, these studies highlight the severity of parental burnout and explain why hundreds of researchers across the world are intent on exploring protective factors that shelter parents from parental burnout (e.g., Sorkkila & Aunola, 2020; Szczygieł et al., 2020).

Among the protective factors investigated so far (for a review, see Mikolajczak et al., 2021), social support has received particular attention. Social support (specifically, perceived social support) refers to individual's perception of their potential access to support from their social network (Uchino, 2009). Because seeking social support is one of the ways parents cope with parenting stresses (e.g., Masarik & Conger, 2017), it is not surprising that prior studies nominated perceived social support as a potent protective factor against parental burnout (Ardic, 2020; Lindström, Aman, et al., 2011; Yamoah, 2021). In fact, they noted that such beneficial effects are evident over and above the effects of socio-demographic factors and parents' personality traits (Szczygieł et al., 2020).

As important as social support is (Geens & Vandenberg, 2014; Taraban & Shaw, 2018), social support is not always available. For example, parents may need to move to another part of the country, or even to another country, which may dramatically limit social support. A lack of social support can also arise from external causes, as the outbreak of the COVID-19 pandemic and the related lockdown made it very salient. Whatever its causes, the lack of social support does not lead to parental burnout in all parents. According to the balance between risks and resources theory of parental burnout (Mikolajczak & Roskam, 2018), this may be because the absence of one important resource (e.g., social support) can be compensated by the presence of another resource of equal or higher weight.

One such resource is the internal resource of cognitive reappraisal—thinking differently about an emotion-triggering episode in order to manage emotion (Gross & John, 2003). Unlike personality attributes, reappraisal is a skill that can be taught and thereby impact people's emotions in meaningful ways (for a recent study; see Wang et al., 2021). When parents routinely apply reappraisal in their daily lives, this skill can mark parents' neural system in a way that automatically influences parental emotions and caregiving strategies (see Goldin et al., 2008). For example, when parents encounter a difficult parenting situation, those with a higher propensity for reappraisal can more easily modify their subjective experience by reinterpreting these situations to reduce their emotional impact, even without knowing it (see discussion in Lorber, 2012).

Given the above, it is not surprising that the use of reappraisal has been linked to a range of positive outcomes in parenting (Finkel et al., 2013). For example, reappraisal has been shown to decrease parenting stress and increase resilience in the face of stressors (Carreras et al., 2019). In line with these findings, evidence suggests that adopting reappraisal makes parents less vulnerable to parental burnout (Lin, Hansotte, et al., 2021; Prikhidko & Swank, 2019). Kuo and Johnson (2021) have recently shown that reappraisal significantly buffers the harmful effect of marital dissatisfaction on parenting stress. These prior findings lead us to believe reappraisal can reduce parental burnout and buffer the effect of the lack of social support on burnout.

1.1 The Present Study

The goal of the present study was to examine relations of social support, reappraisal, and their interplay to parental burnout. We hypothesized that both social support (Hypothesis 1) and reappraisal (Hypothesis 2) would be negatively associated with parental burnout. Furthermore, we hypothesized that the use of reappraisal would moderate/buffer the association of lack of social support with parental burnout (Hypothesis 3).

Recently, Roskam et al. (2021) has revealed that the prevalence of parental burnout varies dramatically around the world: the highest rates are found in Western countries (e.g., around 8% for Belgium, Poland, and US) and the lowest rates in non-Western countries (e.g., less than 1% in some countries including Turkey and Peru). Given these variations, we decided to collect data across countries around the world that differ in their degree of parental burnout. Specifically, we drew participants from both Western (Belgium, Poland, US) and Non-

Western (Peru and Turkey) countries. This procedure had the further advantage to broaden the sociodemographic (e.g., Western or Non-Western) background of our participants and even decrease the current bias in parenting research where 95% studies come from Western countries (see Arnett, 2008; Bornstein, 2013; Keller, 2018; Lansford, 2021; Mistry & Dutta, 2015).

2. Method

2.1 Participants

A total of 1,835 parents from 5 countries (USA, Belgium, Poland, Peru, and Turkey) participated in the study. The protocol included informed consent, demographic questions, and questionnaires measuring the variables of interest in this study. The protocol was translated and adapted to the native language of each country. The recruitment mode (online or on paper and pencil) varied according to local practices. The study was submitted to the local Ethics Committee in each country for approval. Parents were eligible to be recruited into the study if they met the inclusion criterion of still having at least one child living at home. Table 5.1 presents the sociodemographic profiles of parents in each country.

2.2 Measures

2.2.1 Sociodemographic Factors

The participants were asked about their gender (father or mother); age; educational level (number of successfully completed school years since age 6); number of children currently living in the household; age of the oldest child; number of hours spent with children per day (without taking the night into account); working status (paid professional activity); family type (two opposite-sex parents, two same-sex parents, single parent, step-family, multigenerational family, polygamous family, or others); and neighborhood profile (disadvantaged, average, or prosperous).

2.2.2 Social Support

Social support was assessed by the 12-item Interpersonal Support Evaluation List (Cohen et al., 1985). This questionnaire (e.g., “If I were sick, I could easily find someone to help me with my daily chores.”) assessed perceived quality of interpersonal support by a 4-point Likert scale from “*definitely false*” (0) to “*definitely true*” (3). The total score was computed by summing all item scores (after 6 items reverse-scored) so that higher scores indicated greater perceived social support. The Cronbach’s alpha of the score in the current whole sample was .88.

2.2.3 Reappraisal

Reappraisal was measured using the reappraisal subscale of the Emotion Regulation

Questionnaire (ERQ) (Gross & John, 2003). It is a 6-item assessment (e.g., “I control my emotions by changing the way I think about the situation I’m in.”) with each item rated on a 7-point Likert scale from “*strongly disagree*” (1) to “*strongly agree*” (7). The total score was computed by averaging the item scores, and higher scores reflected greater tendency to use reappraisal. The Cronbach’s alpha of the score in the current whole sample was .86.

2.2.4 Parental Burnout

Parental burnout was measured with the Parental Burnout Assessment (PBA, Roskam et al., 2018). It is a 23-item questionnaire (e.g., “I feel completely run down by my role as a parent”). Items are rated on a 7-point Likert scale from “*never*” (0) to “*everyday*” (6), and the total score was computed by summing the item scores so that higher scores indicated greater burnout. The Cronbach’s alpha of the score in the current whole sample was .96.

3. Results

3.1 Preliminary Analyses

Since the questionnaires measuring the variables of interest were translated and adapted into several languages (including Polish for Poland, French for Belgium, Spanish for Peru, Turkish for Turkey, and English for USA), we needed to ensure their linguistic equivalence before carrying out the analyses (Putnick & Bornstein, 2016). For parental burnout, Roskam et al. (2021) have already tested and shown the measurement invariance of the PBA across 21 languages, including the versions used for the current study. For the other two study variables (i.e., social support and reappraisal), we tested measurement invariance across the five languages by multigroup Confirmatory Factor Analysis (CFA) of *lavaan* (Rosseel, 2012) on R version 4.0.2. We performed the analyses with weighted least square with mean and variance estimation method and tested the model, respectively, in which all corresponding items represent the construct.

Three steps of measurement invariance tests were performed. First, we evaluated the overall fit of the measurement model in which all parameters were freely estimated across languages. *Configural invariance* of the measurement model could be assumed when the model fit values of both comparative fit index (CFI) and the Tucker-Lewis Index (TLI) were close to .95, and the value of standardized root mean square residual (SRMR) was near .08 (Hu & Bentler, 1999). We next compared the model fits between this model and the metric invariance model (the item loadings on the factors were fixed to be equal across languages) to test metric invariance. Lastly, we compared the model fits between the metric invariance and the scalar invariance model (the item intercepts were further fixed to be equal across languages) to examine scalar invariance. Following recent studies (e.g., Wuyts et al., 2015), we assumed *metric* and *scalar invariance*, respectively, when two of the following criteria of model fit comparison were met: (1) the difference in CFI (ΔCFI) is near .010; (2) the difference in TLI (ΔTLI) is around .020; (3) the difference in SRMR (ΔSRMR) is around .030 for assuming metric invariance and around .015 for assuming scalar invariance (Putnick &

Bornstein, 2016).

Results of the measurement invariance tests for social support and reappraisal are presented in Table 5.2. All of them met all our criteria. Therefore, the pattern of free and fixed loadings on the latent variables (indicated by configural invariance), factor loadings on the latent variables (suggested by metric invariance), and the levels/intercepts of the underlying items (indicated by scalar invariance) were equal for the measurements used in each country/assessed by each language. These findings indicated that the different language versions of measures assessed the same psychological constructs despite the differences in language. Table 5.3 presents descriptive statistics and Cronbach's alpha of these study variables. Spearman's correlations between the study variables are presented in Table 5.4.

3.2 Main Analyses

Given that we collected data across different countries, we first estimated the extent of variation in parental burnout between countries—intraclass correlation coefficient (ICC). The ICC of parental burnout is 0.05, which implied the existence of a nested data structure in which individual-level responses of parental burnout were nested within countries. Therefore, multilevel modeling was used to analyze the association between variables of interest (Peugh, 2010). We performed multilevel regression model analyses with regression intercepts set to be freely estimated across countries by *lme4* (Bates et al., 2014).

Before creating interaction terms and performing analyses, social support and reappraisal were grand mean centered to avoid multi-collinearity. All study variables were entered in three steps to answer our research questions. Sociodemographic variables were entered in step 1 as a baseline model that summarized the relations of sociodemographic factors to parental burnout (see Model 1 in Table 5.5). We introduced main effect variables, including social support and reappraisal in step 2. Results (see Model 2 in Table 5.5) demonstrated that after accounting for sociodemographic factors, both social support ($b = -10.20$, $SE = 0.53$, $p = .000$) and reappraisal ($b = -2.86$, $SE = 0.54$, $p = .000$) significantly predicted parental burnout, thereby supporting our Hypotheses 1 and 2. The percentage of explained variance between countries (R_2^2) and within countries (R_1^2) were also calculated (Raudenbush & Bryk, 2002). The main effect model explained 34% of parental burnout variance between countries and 26% within countries. The main effect model (Model 2) fitted the data better than the sociodemographic factor model (Model 1) ($\chi^2(2) = 407.58^{***}$).

To test Hypothesis 3, we included the two-way multiplicative term between reappraisal and social support in the step 3 (see Model 3 in Table 5.5). The interaction term significantly predicted parental burnout ($b = 2.16$, $SE = 0.46$, $p = .000$). In total, the interaction effect model (Model 3) explained 36% of parental burnout variance between countries and 27% within countries. The interaction effect model (Model 3) fitted the data better than the main effect model (Model 2) ($\chi^2(1) = 22.03^{***}$). Simple slope tests further revealed that the negative correlations between social support and parental burnout decreased as reappraisal increased from low ($b = -12.28$, $SE = 0.69$, 95% CI of $b = [-13.62, -10.93]$) to high ($b = -7.97$, $SE =$

0.71, 95% CI of $b = [-9.36, -6.58]$), although they remained significant (see Figure 5.1 for interaction plot). These results supported our Hypothesis 3.

3.3 Supplementary Analyses

Following reviewers' suggestions, we first explored whether subdividing parental burnout into subscales would lead to different results. To do so, we repeated the analysis of the interaction effect model for each subscale of parental burnout separately. These models yielded similar results to those obtained with the overall global score (see Table S5.1 in supplementary material).

Second, we examined whether another emotion regulation strategy – suppression (i.e., hide, inhibit, or reduce ongoing emotion-expressive behavior) – confounded our findings. In particular, we included both suppression and suppression*social support as covariates in our main effect and interaction effect models (see Table S5.3 in supplementary material). Results showed that suppression positively predicted parental burnout, while the interaction term between suppression and social support did not. Of interest to the current study is that even with these variables controlled for, our main findings on reappraisal remained similar. All in all, these findings suggested little (if any) confounding effect of suppression.

4. Discussion

Parental burnout attracted considerable and growing attention (Brianda, Roskam, Gross, et al., 2020; Gruber et al., 2020; Mikolajczak et al., 2021). The current study showed that social support strongly protected parents from parental burnout, as did reappraisal, and the two resource factors interacted, such that the presence of reappraisal helped to compensate for the absence of social support. These findings have several noteworthy implications¹¹.

In terms of the role of social support, the present findings echo previous literature on the importance of social support (Feeney & Collins, 2015). From Figure 5.1, we observed that the effect size of social support was so strong that it could compensate for low levels of reappraisal. It is probably not surprising that social support has such powerful effects because it can indeed benefit parents in many ways: receiving concrete help (e.g., having someone to watch over the kids when necessary), benefitting from vicarious experience, receiving advice when stuck in tricky parenting situations, and having people to hang out with and take a breather from parenting. These are just several examples of how social support can contribute to reducing parenting stress. Unsurprisingly, Gugliandolo et al. (2021) proposed and showed that social support is a central resource that contributes to satisfying all parental basic needs and making parents resilient in the face of obstacles and distress.

¹¹ Caution should be warranted because, although social support and cognitive reappraisal are theoretically categorized as resource/protective factor respectively, this study does not have sufficient evidence to support this categorization due to the cross-sectional and correlational study design employed.

Our findings also align with much of the prior emotion regulation literature (McRae et al., 2012) regarding the beneficial effect of reappraisal. Prior studies have shown that reappraisal in general contexts—the general propensity to use reappraisal—is conducive to better adjustment in parenting (the effect sizes are even larger than reappraisal in specific parenting situations, e.g., discipline encounters; see Lorber, 2012). Like previous studies, the current study assessed reappraisal in general contexts; we found it powerful to the extent that it not only predicted less parental burnout but even partially offset the harm of a lack of social support. Merely one emotion regulation strategy—reappraisal—could lessen the harm of lacking social support is exciting, especially as reappraisal can be taught (e.g., Preuss et al., 2021). Taking a step further, future studies would also benefit from systematically examining the effects of other or combined regulation strategies (i.e., emotion polyregulation; Ford et al., 2019). Emotion regulation strategies may work together to offset the harm resulting from situations where lacking social support is inevitable. In sum, since parenting is one of the most emotion-abundant contexts in one's life (Kerr, Rasmussen, et al., 2021; Lin, Hansotte, et al., 2021), the benefits of examining the role of emotion regulation in parenting is clear.

At a practical level, our findings open new directions to reduce parental burnout. One direction is increasing perceived social support. However, this may not always be possible (e.g., during the COVID-19 lockdown or living away from family) and it sometimes takes time to build social networks (e.g., in the case of expatriates). Under these circumstances, professionals (or parents themselves) may rely on internal resource factors to rebalance parents' imbalance in their parenting life and reduce the vulnerability to parental burnout. Although there could be various candidates other than emotion regulation, reappraisal appears to be an especially interesting strategy. One of the reasons is that reappraisal can be relatively easily (i.e., without onsite training) taught. For instance, Preuss (2021) demonstrated that parents assigned to a brief two-session online intervention turned out to have significantly lower parenting stress than those assigned to the control-group. Together with our findings, intervening on the ability to reappraise might be an effective way to reduce parental burnout. Experimental or treatment research is now needed to examine this proposal.

Despite the strengths of the current study, several limitations should be acknowledged. First, the study used a correlational design and relied upon self-report data. Such a design cannot support causal inferences. It should also be noted that although we used the wording “effect” to indicate the association of variables throughout our results and discussion, we are not referring to a causal relation. To strengthen the case for causal inferences, future work could adopt experimental designs (reappraisal; McRae et al., 2012). Second, the association of reappraisal and social support with parental burnout may be due (in part) to the fact that these factors serve as protective factors buffering the impact of child variables (e.g., difficult temperament, disability) on parental burnout. To provide a complete picture, future studies would be helpful to include these variables and test their interaction with social support or reappraisal on parental burnout. At last, the restricted country-level size and the unbalanced sample size in each country prevented us from testing country-level hypotheses including how cultural norms moderated the effects of predictors on parental burnout. However, the current study constitutes a solid basis on which future research can build using larger samples

from more countries.

4.1 Conclusion

Both reappraisal and social support significantly predicted less parental burnout, even after controlling sociodemographic factors. Furthermore, reappraisal significantly lessened the detrimental effect of lacking social support on parental burnout. This finding is of particular interest in the many situations in which social support is unavailable.

Table 5.1
Sociodemographic Profiles of Parents from Five Countries

Country	N	Gender (% mothers)	Age ^a	Educational level ^a	Working status (% paid profession)	Family type						Number of children in the household ^a	Age of the oldest child ^a	Hours with children ^a	Neighborhood		
						% Two opposite-sex parents	% Single parent	% Step-family	% Two same-sex parents	% Multigenerational	% Polygamous				% Disadvantaged	% Average	% Prosperous
Belgium	169	80	40.45 (8.98)	15.10 (3.49)	80	66	18	14	0	1	0	1.89 (0.93)	12.28 (9.28)	4.76 (3.01)	4	53	44
Peru	185	80	42.11	15.16	72	69	11	2	0	6	0	1.88	13.07	7.86	5	42	52

			(13.01)	(3.99)								(1.56)	(11.13)	(5.82)			
Poland	1,071	61	36.50 (7.87)	16.71 (3.89)	85	82	9	6	1	2	0	1.74 (0.89)	9.56 (7.00)	6.20 (4.15)	6	75	19
Turkey	208	50	35.63 (5.73)	14.00 (3.94)	78	81	9	0	0	9	0	1.58 (0.75)	5.31 (5.00)	7.00 (4.89)	2	70	28
USA	202	72	36.98 (8.75)	15.05 (2.34)	82	74	15	5	0	4	0	1.97 (1.08)	10.62 (7.39)	7.43 (4.78)	6	82	12
Total	1,835	64	37.38 (8.75)	15.92 (3.86)	82	78	11	5	0	3	0	1.77 (0.99)	9.82 (7.86)	6.46 (4.49)	5	70	25

^a Its mean is displayed together with its standard deviations in brackets.

Table 5.2*Measurement Invariance Tests for Reappraisal and Social Support*

	SBS- χ^2 (df)	CFI	TLI	SRMR	Δ CFI	Δ TLI	Δ SRMR	Decision
Reappraisal								
Configural	297.82 (45)	0.986	0.977	0.047	-	-	-	Accept
Metric	214.98 (65)	0.986	0.983	0.054	-0.000	0.006	0.007	Accept
Scalar	299.62 (85)	0.979	0.982	0.060	-0.007	-0.001	0.006	Accept
Social support								
Configural	1216.45 (270)	0.971	0.964	0.064	-	-	-	Accept
Metric	1019.70 (314)	0.966	0.964	0.072	-0.005	0.000	0.008	Accept
Scalar	1311.96 (358)	0.954	0.958	0.078	-0.012	-0.006	0.006	Accept

Note. SBS- χ^2 = Satorra-Bentler Scaled χ^2 ; For CFI and TLI, robust statistics were reported. For SRMR, Bentler robust statistics were reported.

Table 5.3*Descriptive Statistics of Study Variables for Each Country*

Country	<i>N</i>	Reappraisal			Social support			Parental burnout		
		<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α	<i>M</i>	<i>SD</i>	α
Belgium	169	4.62	1.26	.88	24.30	8.03	.89	25.98	26.74	.97
Peru	185	4.80	1.21	.78	23.77	7.26	.84	25.59	25.13	.97
Poland	1,071	4.52	1.27	.85	25.86	7.37	.89	29.33	25.22	.96
Turkey	208	5.39	0.98	.86	28.01	6.45	.84	13.19	15.13	.91
USA	202	5.12	1.14	.93	25.59	7.91	.91	28.01	28.61	.97
Total	1,835	4.72	1.26	.86	25.72	7.46	.88	26.67	25.31	.96

Table 5.4*Spearman's Rank Correlation between the Study Variables at the Individual Level*

Variables	1	2	3	4	5	6	7	8	9	10	11
1 Gender											
2 Age	0.08**										
3 Educational level	-0.09**	0.06*									
4 Employment	-0.08**	-0.16**	-0.16**								
5 Number of children in the house	0.01	0.15**	-0.04	0.05*							
6 Oldest child's age	0.05*	0.73**	-0.05*	-0.10**	0.29**						
7 Hours with children	-0.16**	-0.32**	-0.09**	0.35**	0.03	-0.29**					

8	Family type	-0.08**	0.09**	-0.10**	-0.00	-0.03	0.17**	-0.04				
9	Neighborhood	0.01	0.12**	0.10**	-0.02	0.00	0.03	-0.05*	0.02			
10	Social support	0.02	-0.01	0.09**	-0.10**	-0.04	-0.01	0.05*	-0.07**	0.05*		
11	Reappraisal	-0.03	0.00	-0.05*	-0.03	-0.07**	-0.03	0.06**	-0.00	0.02	0.22**	
12	Parental burnout	-0.10**	-0.13**	0.12**	0.07**	0.06**	-0.08**	-0.02	0.02	-0.01	-0.38**	-0.22**

** $p \leq .01$. * $p \leq .05$.

Table 5.5*Multilevel Random Intercept Models Predicting Parental Burnout*

	Model 1 (Sociodemographic factors)		Model 2 (Main effect)		Model 3 (Interaction effect)	
	Estimate	SE	Estimate	SE	Estimate	SE
Fixed Part						
Intercept	33.37***	5.65	28.37***	4.84	27.63***	4.81
Gender (father)	-4.11**	1.24	-3.99***	1.11	-4.17***	1.10
Age	-0.08	0.11	-0.12	0.10	-0.12	0.09
Educational level	0.20	0.16	0.30*	0.14	0.31	0.14
Employment (not employed)	8.81***	1.64	5.68***	1.47	5.66*	1.46
Number of children in the house	1.78**	0.58	1.20*	0.52	1.17**	0.52
Oldest child's age	-0.50***	0.12	-0.34**	0.11	-0.32**	0.11
Hours with children	-0.53***	0.15	-0.34**	0.13	-0.34	0.13
Family (single parent)	4.36*	1.88	0.62	1.69	0.39	1.68
Family (step-family)	0.00	2.59	0.69	2.31	0.32	2.30
Family (same-sex parents)	18.40*	9.16	14.40	8.20	15.27	8.15
Family (multigenerational)	0.22	3.21	-0.19	2.87	-0.02	2.85
Family (polygamous)	15.81	24.15	3.26	21.60	2.11	21.47
Family (Others)	1.18	4.59	-1.25	4.10	-1.15	4.08

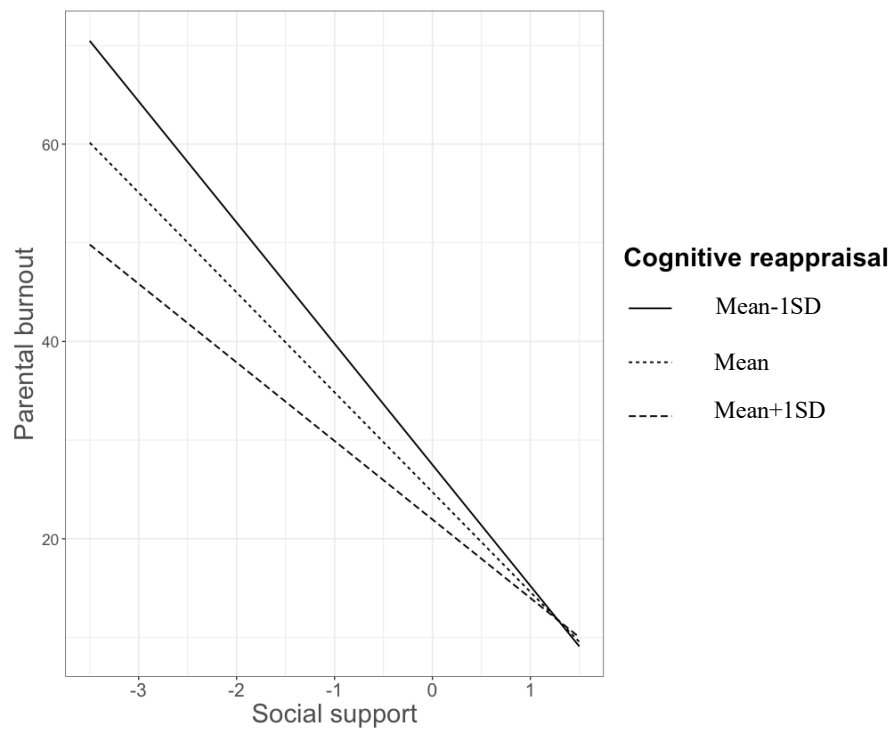
Neighborhood (average)	-6.30*	2.52	-1.87	2.26	-1.40	2.25
Neighborhood (prosperous)	-2.79	2.71	2.01	2.43	2.38	2.42
Social support	-	-	-10.20***	0.53	-10.12***	0.53
Reappraisal	-	-	-2.86***	0.54	-2.77***	0.53
Social support × Reappraisal	-	-	-	-	2.16***	0.46
Error variance (SD)						
Level-2 (countries)	6.23		6.23		4.45	
Level-1 (parents)	23.96		23.96		21.28	
Derived Estimates						
ICC	0.06		0.04		0.04	
R ² (Level-2)	-26%		34%		36%	
R ² (Level-1)	7%		26%		27%	
Model Fit						
Log likelihood	-8311.0		-8107.2		-8096.2	
AIC	16658.0		16254.4		16234.4	
BIC	16757.0		16364.4		16349.9	

Note. R² = the percentage of explained variance between countries; R₁² = the percentage of explained variance within countries. AIC = Akaike information criterion. BIC = Bayesian information criterion. Error variance across countries (higher level) in a model may increase with the addition of predictors, when entering individual-level (lower level) predictors that have small variation at the country level (higher level). It may thus result in a negative R² at the country level (see discussion in Snijders & Bosker, 1994).

*** $p \leq .001$. ** $p \leq .01$. * $p \leq .05$.

Figure 5.1

Interaction Plot



5. Supplementary Material

5.1 Supplementary Analyses

5.1.1 Subscales of Parental Burnout

Parental burnout is an affective syndrome that includes four symptoms (subscales): experiences of exhaustion in the parenting role, emotional distancing from children, loss of parental fulfillment, and contrast between the previous and current parental self. In the supplementary analyses, we examined whether the effect on the subscales is similar or different from each other and from the overall score. Previous studies consistently showed a high correlation between the subscales and the overall score. Given this, we predicted that we would not discern any differences among the associations of social support and reappraisal with overall parental burnout score or from those with parental burnout subscales. To explore this possibility, we followed our primary analysis strategy (for the interaction effect model) as presented in the manuscript but replaced the overall parental burnout score with the subscales. As Table S5.1 shows, these models yielded similar results to those of the model with the overall parental burnout score as the outcome variable: both social support and reappraisal significantly protect parents from parental burnout, and reappraisal buffers the effects of social support.

5.1.2 Effects of “Suppression”

Other emotion regulation strategies may confound the effects of reappraisal. In this dataset, we also measured “Expressive suppression” (hereafter “suppression”), the other subscale of the Emotion Regulation Questionnaire (ERQ) (Gross & John, 2003). It is a 4-item assessment (e.g., “I keep my emotions to myself”) with each item rated on a 7-point Likert scale from “*strongly disagree*” (1) to “*strongly agree*” (7). The total score was computed by averaging the item scores, and higher scores reflected greater tendency to use suppression. The Cronbach’s alpha of the score in the current whole sample was .75. Three steps of measurement invariance tests were also performed. With the exception of the Δ CFI criteria (i.e., Δ CFI must be near .010), all met our criteria (see Table S5.2). Because the other two criteria were met, we still assumed metric and scalar invariance, following recent studies (e.g., Wuyts et al., 2015).

To investigate the possibility of the confounding effect, we included both suppression and the interaction between social support and suppression as covariates in our main effect (Model 1 in Table S5.3) and interaction effect models (Model 2 in Table S5.3). As showed in Table S5.3, suppression predicted, but the interaction term between suppression and social support did not predict parental burnout. Of particular interest to the current study is that even with these variables further controlled for, our main findings on reappraisal remain similar. These findings suggested little (if any) confounding effect of suppression.

Table S1*Multilevel Random Intercept Models Predicting Subscales of Parental Burnout*

	Model 1 (Exhaustion)		Model 2 (Emotional Distancing)		Model 3 (Loss of Fulfillment)		Model 4 (Contrast)	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Fixed Part								
Intercept	14.18***	2.36	2.30***	0.61	4.62***	1.02	6.38***	1.40
Gender (father)	-2.18***	0.51	0.12	0.15	-0.90***	0.25	-1.27***	0.32
Age	-0.03	0.04	-0.01	0.01	-0.03	0.02	-0.05	0.03
Educational level	0.10	0.06	0.04*	0.02	0.08*	0.03	0.09*	0.04
Employment (not employed)	2.75***	0.67	0.68**	0.20	1.04**	0.33	1.20**	0.43
Number of children in the house	0.71**	0.24	0.16*	0.07	0.13	0.12	0.18	0.15
Oldest child's age	-0.24***	0.05	-0.02	0.01	-0.04	0.02	-0.02	0.03
Hours with children	-0.06	0.06	-0.09***	0.02	-0.08*	0.03	-0.11**	0.04
Family (single parent)	-0.12	0.77	0.23	0.23	0.01	0.38	0.26	0.49

Family (step-family)	-0.49	1.06	0.21	0.32	0.05	0.52	0.53	0.67
Family (same-sex parents)	5.13	3.75	3.32**	1.14	1.96	1.85	4.77*	2.39
Family (multigenerational)	-0.37	1.31	0.38	0.40	-0.35	0.65	0.33	0.83
Family (polygamous)	-2.35	9.88	1.32	3.00	2.23	4.88	0.92	6.28
Family (Others)	-0.59	1.88	-0.14	0.56	-0.22	0.92	0.07	1.19
Neighborhood (average)	-1.12	1.04	0.30	0.31	-0.30	0.51	-0.30	0.66
Neighborhood (prosperous)	0.81	1.11	0.81*	0.33	0.52	0.55	0.31	0.71
Social support	-4.26***	0.24	-1.15***	0.07	-1.97***	0.12	-2.76***	0.15
Reappraisal	-1.00***	0.25	-0.30***	0.07	-0.74***	0.12	-0.74***	0.16
Social support × Reappraisal	0.80***	0.21	0.24***	0.06	0.56***	0.10	0.56***	0.13
Error variance (SD)								
Level-2 (countries)	2.75		0 ^a		0.54		1.23	
Level-1 (parents)	9.79		2.97		4.84		6.23	
Derived Estimates								
ICC	0.07		NA ^a		0.01		0.04	
R ² (Level-2)	14%		100% ^a		70%		36%	

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R^2 (Level-1)	25%	18%	22%	23%
Model Fit				
Log likelihood	-6694.8	-4533.7	-5418.4	-5875.1
AIC	13431.7	9109.3	10878.9	11792.2
BIC	13547.2	9224.8	10994.4	11907.7

Note. Exhaustion in the parenting role subscale of parental burnout was set as outcome in Model 1; emotional distancing from children of parental burnout was set as outcome in Model 2; loss of parental fulfillment of parental burnout was set as outcome in Model 3; contrast between the previous and current parental self of parental burnout was set as outcome in Model 4.

^a Model 2 is a singular fit model (i.e., the random effects covariance matrices of a fitted model are singular.) which may implicate it is an overfitted model that may have poor power.

Table S2*Measurement Invariance Tests for Suppression*

	SBS- χ^2 (df)	CFI	TLI	SRMR	Δ CFI	Δ TLI	Δ SRMR	Decision
Configural	11.39 (10)	1.000	0.999	0.009	-	-	-	Accept
Metric	66.20 (22)	0.986	0.981	0.034	-0.014	-0.018	0.025	Accept
Scalar	199.54 (34)	0.948	0.954	0.055	-0.038	-0.024	0.021	Accept

Note. SBS- χ^2 = Satorra-Bentler Scaled χ^2 ; For CFI and TLI, robust statistics were reported. For SRMR, Bentler robust statistics were reported.

Table S3

Multilevel Random Intercept Models Predicting Parental Burnout with Suppression and The Interplay Between Social Support and Suppression Controlled for

	Model 1 (Main Effect)		Model 2 (Interaction Effect)	
	Estimate	SE	Estimate	SE
Fixed Part				
Intercept	28.01***	4.85	27.06***	4.80
Gender (father)	-4.50***	1.12	-4.72***	1.11
Age	-0.11	0.10	-0.12	0.09
Educational level	0.32*	0.14	0.33*	0.14
Employment (not employed)	5.62***	1.47	5.54***	1.45
Number of children in the house	1.24*	0.52	1.22*	0.52
Oldest child's age	-0.36**	0.11	-0.34**	0.11
Hours with children	-0.31*	0.13	-0.31*	0.13
Family (single parent)	1.16	1.69	1.18	1.68
Family (step-family)	0.73	2.31	0.43	2.29
Family (same-sex parents)	14.12	8.18	15.05	8.11
Family (multigenerational)	-0.03	2.86	0.19	2.84
Family (polygamous)	3.17	21.53	0.95	21.37
Family (Others)	-1.51	4.09	-1.52	4.06
Neighborhood (average)	-1.96	2.26	-1.48	2.24
Neighborhood (prosperous)	1.88	2.43	2.19	2.41
Suppression	1.82**	0.55	2.06***	0.54
Social support	-9.70***	0.55	-9.49***	0.55
Reappraisal	-3.31***	0.55	-3.35***	0.55
Social support × Suppression	-	-	-0.94	0.52
Social support × Reappraisal	-	-	2.50***	0.47

Error variance (SD)		
Level-2 (countries)	4.59	4.45
Level-1 (parents)	21.35	21.18
Derived Estimates		
ICC	0.04	0.04
R ² (Level-2)	32%	36%
R ² (Level-1)	26%	27%
Model Fit		
Log likelihood	-8101.7	-8087.5
AIC	16245.4	16221.0
BIC	16360.9	16347.5

Chapter 6 Parenting Culture(s): Ideal-Parent Beliefs Across 37 Countries

Parenting Culture(s): Ideal-Parent Beliefs Across 37 Countries

Abstract

What is it to be “an ideal parent”? Does the answer differ across countries and social classes? To answer these questions in a way that minimizes bias and ethnocentrism, we used open-ended questions to explore ideal-parent beliefs among 8,357 mothers and 3,517 fathers from 37 countries. Leximancer Semantic Network Analysis was utilized to first determine parenting culture zones (i.e., countries with shared ideal-parent beliefs) and then extract the predominant themes and concepts in each culture zone. The results yielded specific types of ideal-parent beliefs in five parenting culture zones: being “responsible and children/family-focused” for Asian parents, being “responsible and proper demeanor-focused” for African parents, and being “loving and responsible” for Hispanic-Italian parents. Although the most important themes and concepts were the same in the final two zones – being “loving and patient”, there were subtle differences: English-speaking, EU, and Russian parents emphasized “being caring,” while French-speaking parents valued “listening” or being “present.” Ideal-parent beliefs also differed by education levels within culture zones, but no general pattern was discerned across culture zones. These findings suggest that the country in which parents were born cannot fully explain their differences in ideal-parent beliefs, and that differences arising from social class or education level cannot be dismissed. Future research should consider how these differences affect the validity of the measurements in question and how they can be incorporated into parenting intervention research within and across cultures.

Reference

Lin, G.-X., Mikolajczak, M., Keller, H., Akgun, E., Arikan, G., Aunola, K., Barham, E., Besson, E., Blanchard, M. A., Boujut, E., Brianda, M. E., Brytek-Matera, A., César, F., Chen, B.-B., Dorard, G., dos Santos Elias, L. C., Dunsmuir, S., Egorova, N., Escobar, M. J., ... Roskam, I. (2023). Parenting Culture(s): Ideal-Parent Beliefs Across 37 Countries. *Journal of Cross-Cultural Psychology*, 54(1), 4–24. <https://doi.org/10.1177/00220221221123043>

1. Introduction

Parenting is a flourishing topic in the field of developmental psychology, and with good reason: the survival of the human species depends on it. Yet, despite several pioneering studies (Keller et al., 2006; Super & Harkness, 1986), many psychological studies published in English-language journals devoted to parenting concern predominantly white, middle-class parents in the USA (see Arnett, 2008; Bornstein, 2013; Keller, 2018; Lansford, 2021; Mistry & Dutta, 2015). Besides, many psychological studies that have included non-Western (i.e., non-Euro-American) cultures have merely imposed a framework established in Western (i.e., Euro-American) cultures, preventing the discovery of concepts from the non-Western world (S. Harkness & Super, 2020; Lansford et al., 2016; Segall et al., 1998). As a result, how humans parent in the non-Western cultural space, as opposed to the well-examined Western cultural space, remains less clear. In this study, we aimed to examine ideal-parent beliefs—a crucial characteristic of parenting culture—in an *exploratory* (without setting specific hypotheses), *bottom-up* (from the perspective of the principal actors—mothers and fathers) manner across 37 countries.

1.1 The Notion of Culture

Culture consists of ideas, beliefs, values, conventions, representations, and meanings widely shared within a community (Triandis, 1996). It can vary according to environmental conditions or contexts, including race and ethnicity, urban and rural contexts, religion, and many other dimensions (Keller, 2020). The intersection between these conditions, for instance, the country in which parents are born and their social class (Keller, 2020; Lansford et al., 2016), creates distinct cultural settings for parenting and child development (Super & Harkness, 1986, 2020b). Individuals in countries may share distinct cultures in terms of values, ideologies, norms, and beliefs (K.-S. Yang, 2018). Nevertheless, different social classes have distinct subcultures and, in most cases, it is the country's dominant group that shapes its culture (Keller, 2018). By setting the standards and defining the competencies that are valued (Markus & Hamedani, 2019), cultures and subcultures provide benchmarks for what to do and what not to do, what attitudes to adopt and what not to adopt, and even what content is relevant to the construction of self and identity (S. Harkness & Super, 2021; Super & Harkness, 2020a).

1.2 Parenting Culture and Ideal-Parent Beliefs

What is true of culture in general also applies to parenting culture—ideas, beliefs, values, conventions, representations, and meanings associated with parenting that are widely shared within a community (S. Harkness et al., 2015; S. Harkness & Super, 2002; Keller et al., 2006). All parents hold ideas about what good parents should ideally do and be to promote their children's health, development, and well-being (Mayseless, 2006; Weaver et al., 2020). Those so-called “ideal-parent beliefs” are a universal phenomenon: all parents in all cultures rely

on these beliefs to know how to fulfill their parental role (see Chao, 1995; Super & Harkness, 2020b). However, although some of their components are considered universal, including the belief that ideal parents must care for their children, the definition of the “ideal” parent seems to vary according to the cultural setting (Bornstein, 2012, 2013; Choate & Engstrom, 2014; Lo Cricchio et al., 2019). What is considered good or even ideal in one cultural setting may be considered inappropriate in another (Choate & Engstrom, 2014; Fontes, 2005; Li, 2012)¹². The ideal-parent beliefs shared by a community of parents thus represent a crucial aspect of its parenting culture (Mistry & Dutta, 2015; Super & Harkness, 2020b).

Ideal-parent beliefs or good-parent beliefs—the features parents consider a good parent should ideally possess—play a crucial role in parents’ daily life (Super & Harkness, 2020b). These beliefs act as a guide for parenting behavior (Hale et al., 2017), parental decision-making, and parental duties in daily and challenging situations (Lo Cricchio et al., 2019; Weaver et al., 2020). For instance, Zhong et al. (2020) found that if caregivers have a stronger ideal belief that engaging in specific stimulating parenting practices will benefit child development (e.g., reading stories to the child), they will actually adopt such strategies, which will, in turn, have an impact on child development (e.g., language and literacy outcomes; see Ece Demir-Lira et al., 2019). Moreover, ideal-parent beliefs help guide parenting decisions, especially at critical moments (Karlsson et al., 2013; Keller, 2012). For example, Feudtner and colleagues (2015) found that when parents have to make critical decisions about children with a serious illness, their ideal-parent beliefs have implications for their preferred decision-making style (i.e., their beliefs guide them about whether to decide on their own or whether to leave the decision to doctors). Ideal-parent beliefs are so important that parents experience guilt, self-stigma, self-criticism, and sometimes even despair when they find themselves unable to meet their parenting ideal (Eaton et al., 2016).

1.3 A Bottom-Up Exploratory Research Approach

Because ideal-parent beliefs are an important feature of parenting cultures, researchers have recently identified the examination of these beliefs as a potentially fertile direction in parenting science (Super & Harkness, 2020b). In psychological research, one of the most common ways to describe cultural differences in parenting is to adopt an existing theoretical framework (e.g., the universal dimension of independence and interdependence; see S. Harkness & Super, 2020; Huppert et al., 2019; Kağıtçıbaşı, 1996, 2005; Tamis-LeMonda et al., 2008). Although adopting universal dimensions makes it possible to position communities or countries relative to each other, the direct imposition of this conceptual framework in specific cultures may exclude some relevant indigenous concepts or processes from consideration (see Greenfield, 2000; Greenfield et al., 2003; Keller, 2012; Lansford et

¹² A characteristic of a parent that is considered good or even ideal in one cultural setting may be considered inappropriate in another. For instance, it may be deemed inappropriate behavior for Chinese parents to praise their children as smart or clever, whereas such behavior is common and valued in Euro-American parenting (see Li, 2012).

al., 2016; Raeff, 2010; K.-S. Yang, 2018). One way to overcome this limitation is by taking a *bottom-up exploratory* approach. By starting directly from culture insiders' understanding of ideal parenting and without making any assumptions, this approach uncovers the core concepts for the culture that might be overlooked by imposing an *a priori* framework. For this reason, this way of studying culture has been advocated by researchers in disciplines such as anthropology for decades (Geertz, 1974) and more recently in psychology (S. Harkness & Super, 2020; Lansford et al., 2016; Segall et al., 1998; Super & Harkness, 2020b; K.-S. Yang, 2018).

1.4 The Present Study

The aim of the present study was to uncover parents' beliefs about ideal parenting and organize them into (sub)types based on their similarities and differences across countries and educational levels. To do so, we used a bottom-up exploratory approach. We collected and analyzed the beliefs of fathers and mothers (i.e., culture insiders) from 37 countries and different levels of education with the goal of exploring parenting (sub)cultures around the world.

2. Method

2.1 Participants and Procedure

A total of 8,357 mothers and 3,517 fathers from 37 countries participated in the study. Parents were eligible to participate if they were born in their current country of residence and met the inclusion criterion of still having at least one child living at home, regardless of their age. Tables S6.1 and S6.2 in the supplementary material present the sociodemographic characteristics of fathers and mothers in each country.

The data were collected during the period from January 2018 to November 2019 through the International Investigation of Parental Burnout (IIPB) Consortium. The IIPB Consortium was set up by two Belgian principal investigators (PIs) in 2017. They aimed to include in the consortium as many countries as possible that differed from each other in terms of their geographical position and socioeconomic level. They started by contacting several researchers they personally knew and inviting them to participate in the project. Next, they contacted well-known experts in parenting psychology to supplement this initial pool of participating countries. Lastly, to further extend the number of countries included in the consortium, when researchers from non-participating countries wrote to the two IIPB PIs to inquire about parental burnout, they invited them to join the consortium.

The study was presented as a study designed to improve understanding of parental fulfilment and exhaustion around the world. All the countries utilized a standardized protocol provided by the IIPB PIs (the full protocol is available on Open Science Framework (OSF) at https://osf.io/94w7u/?view_only=a6cf12803887476cb5e7f17cfb8b5ca2). However, the

recruitment procedure (e.g., newspaper advertisements, word of mouth, social networks, door-to-door) and the presentation of the survey (i.e., paper and pencil, or online) varied from country to country according to local practices. A summary of the recruitment procedure in each country as well as the ethics approvals are available in Roskam et al. (2021). In the end, 37 countries from the initial pool of 42 countries participating in the IIPB data collection provided the data for the current study. The sample size corresponds to the number of mothers and fathers who fully answered the questions relating to the variables of interest.

2.2 Measures

Beyond demographic measures, the IIPB common protocol included measures designed to address different research goals (e.g., comparing the prevalence of parental burnout across countries; investigating the relations between parental burnout and gender roles). Because those questions are too diverse to be addressed in the same article, we describe below only the measures used in the current paper.

2.2.1 Demographic Questions

The participants were asked about: their gender; their age; their educational level (number of successfully completed school years from the age of 6); their total number of biological children and the number of those living in the household; the age of the youngest and the oldest child; the number of hours spent with children per day (without taking the night into account); the number of women (e.g. co-wife, grandmother, etc.) living in the household/immediate area and caring for the children on a daily basis (including the respondent when applicable); the number of men (e.g. grandfathers, uncles etc.) living in the household/immediate area and caring for the children on a daily basis (including the respondent when applicable); their working status (paid professional activity); their ethnicity; their family type (two mixed-gender parents, two same-gender parents, single parent, step-family, multigenerational family, or polygamous family); and the neighborhood profile (whether parents perceived their home resided in a relatively disadvantaged, prosperous, or average neighborhood). Note that for the item about family types, countries which so requested were allowed to remove the types that did not fit the culture (e.g., two same-gender parents or polygamous family).

2.2.2 Ideal-Parent Beliefs

The participants were invited to state freely five features that they personally considered a good parent should ideally possess. For the mothers, the exact item was: “Indicate five features (each in one word) that an ideal mother should have in your opinion (e.g., caring)” (i.e., ideal-mother beliefs). For the fathers, the exact item was: “Indicate five features (each in one word) that an ideal father should have in your opinion (e.g., caring)” (i.e., ideal-father beliefs). The respondents were asked to answer in their mother tongue. In order to limit translation and interpretation bias in the data analyses, the instruction given to participating parents in the IIPB protocol was to produce single words (rather than phrases or sentences).

Except for English- and French-speaking countries, the dataset provided by each country,

i.e., the collection of features reported by local participants, was translated into English by the IIPB local researchers for analysis purposes. The IIPB local researchers were both experts in psychological science and native speakers of the original language of the parents' raw responses. In the translation process, they were also asked to secure equivalence of meaning. In particular, the translated features were not restricted to single words in English. The researchers were rather encouraged to look for approximations (e.g., a phrase or a sentence) to best convey the meaning of the raw responses. When the dataset was in French, the translation and meaning equivalence were handled by the two Belgian PIs. Finally, the first author, who was not involved in the translation process, conducted the data analysis using automated content analysis in order to reduce interpretation bias.

2.3 Analysis Strategy

Inductive research like the present study affords the researcher some room for creativity, and subjective decisions and interpretations need to be made throughout the analysis process (Wagenmakers et al., 2018). To make the current study replicable, we will describe our decisions in detail and have made our dataset available in a public research repository (https://osf.io/y9e2u/?view_only=c94f6d223365442e9167605384b873ac). In order to analyze mothers' and fathers' ideal-parent beliefs around the globe, we performed Semantic Network Analyses (SNAs) with Leximancer (see A. E. Smith & Humphreys, 2006 for the validity of the tool). This software performs quantitative content analysis using an unsupervised machine learning technique (<https://info.leximancer.com/>). As in exploratory factorial analysis of quantitative data, the SNA proceeds according to a principle of increasing abstraction, in which the responses provided by the respondents (i.e., the ideal-parent features provided by the parents in the current study) are organized into concepts that in turn are organized into themes (i.e., clusters of concepts).

Before running the SNAs, we removed typical stop words in English (i.e., frequent words that are rather arbitrarily designated as having little semantic meaning) including articles, pronouns, prepositions, and conjunctions (e.g., "the", "I", "about", "and") as well as low semantic-content transitive verbs (e.g., "add"). Also, variants of words, including different parts of speech (e.g., "child" and "children", or "love" and "loving"), were merged into the form appearing most frequently in the texts.

In the following analyses, we ran SNAs separately on mothers' and fathers' ideal-parent beliefs. Two stages of analysis were implemented in a Leximancer SNA. In the first stage, concepts were extracted from the features. In Leximancer, concepts are defined as latent constructs indicated by collections of features that generally go together throughout the responses. In practice, the SNA first extracted from the raw responses provided by the parents a set of relevant features (as well as synonyms) that frequently co-occurred in the same responses and rarely occurred independently in separate responses. Learning the meaning of features by examining their occurrences and co-occurrences, Leximancer automatically extracted key messages that these features expressed and designated names for concepts

accordingly. The features belonging to a specific concept were also weighted to indicate the “evidence” of the concept’s existence according to how frequently these features co-occurred in raw responses, compared to how frequently they occurred separately elsewhere. Finally, the SNA tested whether a parent’s ideal-parent beliefs contained the concepts or not, based on whether the “evidence” was above the user-defined threshold (i.e., the summed weight of the features connected to a concept; in this study, we used the default threshold, 0.7).

In the second stage, Leximancer produced a co-occurrence network matrix, allowing us to examine all concepts extracted from the first stage and their co-occurrences. Based on their co-occurrences, the SNA also produced a semantic network map, in which a concept was denoted as a node; the size of the nodes imaged concept connectivity and their closeness imaged both the strength of the association (or co-occurrence) between concepts (direct association) and connections of similar frequency to other nodes (indirect association). Two concepts were connected by edges only when they had a strong association, taking account of both direct and indirect association between nodes and the degree of specificity in the concept hierarchy (i.e., whether two concepts had similar occurrences). Themes were represented as overlapping circles encompassing concepts that were close together on the map, and the number of themes was determined by users (in the current study, it was determined to be three for ease of interpretation). Each theme took its name directly from the most connected (i.e., most important) of the concepts it encompassed; thus, the themes enabled users to investigate the most connected concepts in a semantic network map. The frequency counts of themes denoted the number of responses associated with the theme (cluster of the concepts).

We were aware of a wide variation in sample sizes across countries in our dataset, so we did not directly examine the content of ideal-parent beliefs across the world (as the content of ideal-parent beliefs would then be represented more by parents from countries with larger sample sizes). Instead, a sophisticated 2-step procedure was used to avoid over-representing any country’s data in the results. First, because countries may have similar parenting cultures and thus ideal-parent beliefs, we used the country as a unit and examined the similarity between the ideal-parent beliefs reported by the parents in the countries. Leximancer SNA clustered countries that shared similar ideal-parent beliefs into culture zones. In our dataset, mothers and fathers were nested in a country so that Leximancer could organize the results according to this between-factor and reveal the countries as nodes on the map. The closeness between the country nodes reflected their similarity with regard to the ideal-parent beliefs shared by the parents in these countries. This step enabled us to delineate culture zones holding the same ideal-parent beliefs.

Second, we pooled the datasets from the countries belonging to the same parenting culture zone and then clustered all parents into three educational groups according to the number of successfully completed school years: (1) low-educated parents (with less than 9 years of education from the age of 6), (2) middle-educated parents (9-15 years), (3) high-educated parents (at least 16 years). We ran new SNAs, i.e., one SNA in each parenting culture zone, considering the educational group as a between-factor. To demonstrate ideal-parent beliefs taking into account the intersection of education levels and parenting culture zones, we

customized Leximancer to organize SNA results according to the educational groups in each culture zone. In such SNA results, educational level groups were displayed as nodes together with ideal-parent belief nodes. And the more characteristic concepts of the groups were those closer to the node of the group in proximity or even connected by edges.

3. Results

We identified five parenting culture zones across the 37 countries. Figure 6.1 shows the semantic network map on which we have circled these five zones. Official language and/or geographical proximity were found to organize the boundaries of the zones. We labeled them (1) Asian, (2) African, (3) Hispanic-Italian, (4) Western I (mainly consisting of English-speaking and EU countries) and Russian, (5) Western II (mainly consisting of French-speaking countries). Their composition in terms of countries is presented in Figure 6.1a for mothers and in Figure 6.1b for fathers. The number of parents in each zone is given in Table 6.1.

Table 6.2 shows the three most frequent concepts and the three major themes (i.e., the most connected concepts for the theme) of the ideal-mother/-father beliefs across the five parenting culture zones together with their frequency counts. In addition, the semantic network maps delineating the ideal-parent beliefs and their association with the educational level groups in the five parenting culture zones are shown in Figure 6.2. These maps were customized to show the educational groups as well as the concepts, edges, and three overlapping themes of the ideal-parent beliefs. In the following sections, we analyzed the frequency counts (i.e., the total number of occurrences) of both the most frequent concepts and the most frequent themes of ideal-parent beliefs across parenting culture zones. Then we examined and compared the ideal-parent beliefs according to educational levels within each parenting culture zone¹³.

3.1 Ideal-Parent Beliefs Around the Globe

3.1.1 The Three Most Frequent Ideal-Parent Belief Concepts Across Parenting Culture Zones

The results revealed both commonalities and differences between the predominant ideal-parent beliefs in the five parenting culture zones. With regard to the commonalities of beliefs, we found that the extracted concepts were highly similar across gender within each parenting culture zone (see Table 6.2). In addition, a similar set of extracted concepts (e.g., “loving,” “responsible,” and “patient”) were also found across the five culture zones (see Figure 6.2).

¹³ It should be noted that we use wording that implies comparisons (e.g., “more important than”) throughout this article. However, no formal statistical analysis was carried out in this study to demonstrate statistically significant differences with regard to these features.

However, the importance (i.e., frequency count; see Table 6. 2) of each concept was different between culture zones, and this was what constituted the specificity of each culture. In particular, “responsible” ranked at the top of the list in both the Asian and African parenting culture zones. In the Asian parenting culture zone, the concepts of “family” and “children” were also found at the top of the list, whereas we found concepts such as “patient/patience” and “respected” at the top of the list in the African culture zone. In contrast to these two culture zones, “loving” consistently ranked at the top of the list of the other three culture zones. “Responsible” was the second most frequent concept in the Hispanic-Italian parenting culture zone; “patient” in both Western I and Russian (ranked second for mothers and third for fathers) and Western II culture zones¹⁴.

3.1.2 The Three Major Themes Across Parenting Culture Zones

The thematic analysis further uncovered the most connected (i.e., central) concepts that attracted a community of concepts around them and were therefore considered to be themes.

¹⁴ We requested Leximancer to merge all parts of speech for a word/word variants into a single word, and Leximancer automatically identified the potential stem words for variants, but we did not further transform all descriptors into a single consistent form (e.g., adjective form), in order to reduce subjective human interventions. In any case, descriptors like “family” and “children,” which were especially frequent in the Asian parenting culture zone, are nouns without a corresponding adjective form. These specific nouns, rather than being mere “noise”, may reflect the specificity of the culture concerned (i.e., Asian culture). Previous research has found that some Asian parenting cultures are child-oriented and family-oriented: parents’ parental self/identity largely relies on their thoughts about children and family, including having responsibility or needing to do something for their children and family. In other words, for these parents, their ideal parenting, instead of focusing on characteristics of themselves as parents, is based on thoughts about children and family: e.g., how they interact with their children and family, what responsibility they have for their family and children, and so on. In support of this, Ng et al. (2014) recently found that some Chinese (Asian) parents’ feelings of self-worth are more contingent on children’s performance.

This proposal aligns with our analysis result. In this culture, the features relating to “children” and “family” were mentioned often enough to be extracted and listed in the three most frequently-occurring concepts list. Given that we utilized the exact same analysis procedure on the datasets of each culture zone, the fact that the emphasis on children and family only emerged in Asian parenting cultures may reveal a cultural difference. As described in the discussion, after randomly assigning each participant to one of the five groups and replicating exactly the same SNA analysis strategy, we did not find this difference. Therefore, instead of seeing nouns such as “family” or “children” as mere noise, we eventually decided not to make a subjective human intervention on the result.

The semantic association of concepts, indicating how they were interrelated in the raw responses, can be further examined in the semantic network map (in Figure 6.2). This map demonstrates how concepts were related (whether some concepts were used together in parents’ responses) in raw responses. As explained in our Analysis Strategy, two concepts were connected by edges only when they had a strong association, which considered both direct and indirect association between nodes and the degree of specificity in the concept hierarchy (i.e., whether two concepts had similar occurrences). It is thus possible to see from these figures, for instance, what other concepts are often mentioned in parents’ responses when “family” or “children” are mentioned. In Figure 6.2a, “children” is attached to “love,” “take,” and “care,” which suggests that Asian mothers’ responses may often involve the idea of “loving children” or “taking care of children” since these concepts have strong associations. As regards “family,” in Figure 6.2a “family” is attached to “love,” “housework,” “sacrifice,” and “honest” for Asian mothers. This suggests that “loving family,” “doing housework for the family,” or “sacrificing for the family” are the main ideas of Asian mothers regarding the ideal parent.

As for the concepts, commonalities and differences appeared for the themes across parenting cultures. In terms of commonalities, the extracted major themes and community of concepts around them, were highly similar between ideal-mother and ideal-father beliefs (see Table 6.2 and Figure 6.2).

The commonalities across parenting cultures did not end at gender issues, as we also found a similar number of themes across the five parenting culture zones. In particular, compared with the first theme (“family” for Asian parents; “responsible” for African parents; “loving” for Hispanic-Italian, Western I and Russian, and Western II parents; see below), the frequency count of the two subsequent themes (these themes differed across zones; see Table 6.2) decreased drastically, suggesting that ideal-parent beliefs are organized around *one* main theme around the globe. However, the topics of the themes reflected cultural characteristics. The theme organized around “loving” (with concepts such as “happy,” “caring,” “supportive,” and “funny” close to the concept “loving”; see Figure 6.2c-e.) was found to be the most important in the Hispanic-Italian, Western I and Russian, and Western II parenting culture zones. In other words, “loving” was identified as the core of the ideal-parent beliefs in these three parenting culture zones. The two remaining parenting culture zones were characterized by very different ideal-parent beliefs. The most central theme was organized around “family” (with concepts such as “housework,” “children,” and “model” close to the concept “family”; see Figure 6.2a.) in the Asian parenting culture zone and “responsible” (with concepts such as “sacrifice,” “power,” and “moral” close to the concept “responsible”; see Figure 2b.) in the African parenting culture zone.

Taking the two levels of analysis together, we directly referred to the most important theme and two most frequently used concepts to characterize each culture for the sake of parsimony. Two parenting culture zones, the Asian and the African, mainly emphasized responsibility. In addition, Asian parents emphasized child/family, while African parents valued being respectful, respected, and patient (together, these reflected the emphasis on “proper demeanor”). The three other parenting culture zones focused on being loving. In addition, Hispanic-Italian emphasized being responsible, and Western I and Russian as well as Western II parents cherished being patient. To further differentiate the Western I and Russian as well as Western II cultures, we took the third most frequent concept into consideration: English-speaking, EU, and Russian parents further emphasized “being caring”, while French-speaking parents valued “listening” or being “present.” In sum, specific types of ideal-parent beliefs (“responsible and children/family-focused”, “responsible and proper demeanor-focused”, “loving and responsible and caring”, and “loving and patient and listening/present”) were identified across five parenting culture zones.

3.2 Ideal-Parent Belief Subtypes by Educational Level Within the Parenting Culture Zones

For highly educated parents in the Hispanic-Italian and Western I and Russian culture zones, ideal-parent beliefs were characterized by concepts like “patient” and “calm”, or

empathic concerns like “empathic”, “available” and “affectionate.” In contrast, for less educated (low- and middle-educated) parents, ideal-parent beliefs were characterized by concepts like “loving/love,” “honest,” and “caring” (see Figure 6.2c and Figure 6.2d).

The pattern displayed in Asian (see Figure 6.2a) and African (see Figure 6.2b) parenting culture zones was different from the above two culture zones. In the Asian culture zone, concepts like “family” and “housework” featured among parents with low levels of education (the nodes of these concepts were closer to the low-educated node; see Figure 6.2a), while “money” and “income” characterized highly educated parents (the nodes of these concepts were closer to the high-educated node; see Figure 6.2a). In the African culture zone, mothers from different educational levels emphasized distinct concepts of ideal-mother beliefs. The concepts of “family” and “children” were typical of the highly educated mothers (the nodes of these concepts were closer to the high-educated node; see Figure 6.2b), whereas the concepts of “respected,” “responsible,” and “courage” were more characteristic of mothers with less education (the nodes of these concepts were closer to the low-educated node; see Figure 6.2b). In contrast to the mothers' results, the fathers' results suggest that the ideal-father beliefs do not vary with education level: almost all extracted concepts were at a similar distance from the education level groups.

Finally, in the Western II parenting culture zone (see Figure 6.2e), the pattern of ideal-parent beliefs was very similar across educational levels for both mothers and fathers.

4. Discussion

Even though recent globalization and modernization have started to blur the boundaries (Greenfield, 2009; Greenfield et al., 2003), cultural differences remain salient (Inglehart, 2018; Santos et al., 2017). Parenting culture and thus ideal-parent beliefs are no exception (S. Harkness & Super, 2021; Keller, 2020). Unlike much empirical research examining parenting culture in terms of differences in parenting behaviors or socialization goals, the current research breaks new ground in exploring another crux of parenting culture: ideal-parent beliefs. Ideal-parent beliefs are a set of beliefs that parents can refer to and follow in rearing their children (Super & Harkness, 2020b). These beliefs are a higher-level construct—the meaning system and lens through which parents perceive, understand, and engage in their parenting practices (George & Solomon, 2008; S. Harkness & Super, 1996). Different parenting cultures were evident in our data, reflected in different types of ideal-parent beliefs across social classes and countries.

More specifically, in the reports of parents from 37 countries across the five main continents, we found five distinct parenting culture zones. These were a “responsible and children/family-focused” type for Asian parents, a “responsible and proper demeanor-focused” type for African parents, a “loving and responsible” type for Hispanic-Italian parents, a “loving and patient and caring” type for Western I (consisting mainly of English-speaking and EU countries) and Russian parents, and a “loving and patient and listening/present” type for Western II (consisting mainly of French-speaking countries)

parents¹⁵. In addition, we found commonalities between ideal-mother and ideal-father beliefs, which may suggest the existence of "parenting" cultures around the world, rather than distinct "mothering" and "fathering" cultures. Finally, we found that ideal-parent beliefs differed by education level, but no general pattern could be drawn across cultures. As shown below, these results contribute to the current understanding of cultures and parenting as well as having implications for future research.

Examining the countries that constituted the five parenting culture zones identified by our bottom-up research approach, we found that the country composition of culture zones largely aligned with the latest finding of the World Value Survey (2020). In this cross-nationally representative survey, Inglehart and colleagues examined cultural differences in two general value dimensions (i.e., traditional versus secular-rational value and survival versus self-expression; see Inglehart, 2018; Inglehart & Welzel, 2005) in almost 100 countries. They found that with these two dimensions, countries sharing similar value combinations could be divided into culture clusters (eight clusters in the seventh wave, which was conducted in 2017-2021). Although they did not situate culture in a specific context as we did by contextualizing culture in the parental sphere, the way countries formed clusters in the World Value Survey and the parenting zones highlighted in our research are comparable. Specifically, when countries are geographically close or share the same language, their cultures seem to form a homogeneous pattern. This similarity suggests that cultures, whether examined in a specific context (e.g., parenting) or not, are organized by geographic proximity and language¹⁶.

The ideal-parent beliefs in each culture zone found in the current study echo previous literature on smaller samples of countries and facilitate a more comprehensive understanding of parenting. For example, we found that parents in the Western I and Russian, as well as the

¹⁵ As the first study examining what ideal parents look like across a wide variety of cultural settings, our findings also supplement the current understanding of culture areas (as distinct from the culture zones defined for the specific purpose of this study). Culture areas are defined as continuous geographical regions in which people have long been observed to have similarities across a wide variety of life domains (see S. Harkness et al., 2015). Referring to the description of culture areas (see the Human Relations Area Files, <https://hrf.yale.edu/about/history-and-development/>), we found that parents from the Asia culture area mainly endorsed a "responsible and children/family-focused" type of ideal parents, parents from the Africa culture area mainly endorsed a "responsible and proper demeanor-focused" type, parents from the Europe (Southern Europe), Middle America and the Caribbean, and South America culture areas mainly endorsed a "loving and responsible" type, and finally, parents from North America, Europe (British Isles and Eastern Europe as well as Scandinavia), and Oceania (Australia) endorsed a "loving and patient" type.

¹⁶ To be more specific, China, Japan, Thailand, Vietnam, Turkey, and Iran were clustered together in our findings (in the Asian zone) and the World Value Survey (2020; in the Confucian and West and South Asia African-Islamic clusters). Egypt and Algeria were clustered together in our African zone and the World Value Survey's African-Islamic cluster. Italy, Portugal, Spain, Brazil, Ecuador, and Peru were clustered together in our Hispanic-Italian zone and the World Value Survey's African-Islamic, Catholic Europe, and Latin America clusters. The Netherlands, Germany, Finland, Switzerland, Belgium, France, Canada, France, Austria, the USA, Australia, and the UK were clustered together in our Western I-Russian and Western II zones and the World Value Survey's Catholic and Protestant Europe and English-Speaking clusters.

Western II culture zones, emphasized “loving,” “caring,” “patient,” and “calm” as characteristics of ideal parents. This combination of concepts matched the parenting strategies encompassed in “*positive parenting*” ideologies prevailing in current Western cultures—the philosophy that parents should take care of their children with warmth and support (Larzelere et al., 2017; Lin, Hansotte, et al., 2021). In contrast, Asian and African parents deemed “*responsible parenting*” (e.g., assuming responsibility; Gillies, 2008; being responsible for children’s cues; Schuhmacher et al., 2017) as most important. Asian parents’ ideal-parent beliefs were further based around family and children (i.e., doing things for their children and family; e.g., loving/teaching/guiding their children or family), reflecting the child/family focus nature of the culture (Keller et al., 2007; Ng et al., 2014). African parents found it crucial to be “patient” and emphasized the concept “respected.” This specific combination of concepts echoes the literature highlighting the proper demeanor of obedience and respect that is common in African cultures (LeVine et al., 1994; A. M. Miller & Harwood, 2002).

Like Keller (e.g., 2018, 2020), we found that the country as a unit cannot fully explain differences in parenting culture (i.e., the cultural differences of ideal-parent beliefs in this case). Social class, which was organized here according to parental education levels, showed the existence of parenting subcultures. Our results indicated that ideal-parent beliefs differ by educational levels and that no general pattern of such differences could be drawn across culture zones. For example, in zones where a positive parenting ideology prevails (i.e., the Western I and Russian as well as the Western II zones), ideal-parent beliefs are rather homogeneous among parents with higher and lower levels of education. In contrast, Western I and Russian parents with a high level of education place special emphasis on concepts like being “patient” and “calm”, whereas parents with lower or middle levels of education place emphasis on being “loving/love” and “honest”¹⁷.

4.1 Limitations and Future Directions

Despite its contributions, the limitations of this study should be acknowledged. First, the fact that the raw responses were collected in the parents' native language is both a strength and a weakness. It allowed us to begin with the participants' beliefs in a bottom-up approach.

¹⁷ The fact that there is an imbalance in sample size between educational groups, and particularly limited participation from low-educated groups, warrants further caution in interpreting the results and their generalizability. The underlying rationale of Leximancer is to first use all the input data to create a semantic network analysis and then differentiate between the reports of groups of people by placing the tag of groups closer to their characteristic concepts. However, due to the small sample size for the low-educated groups, especially in datasets of Western I and Russian and Western II parenting culture zones, it is possible that this small group of participants provides insufficient information to discern their unique ideal-parent beliefs and differentiate them from the other groups. This may also explain why we cannot discern the difference in ideal-parent beliefs between educational groups, particularly in Western I and Russian and Western II parenting culture zones. Future studies should focus on different educational levels of parents to replicate the study, especially by enlarging the participation of low-educated groups. As Firestone (1993) noted, replication in different conditions is necessary and could reinforce the generalizability of qualitative studies.

However, it also possibly biased the interpretation of the results, because the material had to be translated into a common language, English, sometimes using approximations to secure the initial meaning given by the participants. Despite the precautions implemented in the present study (i.e. production of single words by the participants, involvement of native researchers in the process of translation and securing the meaning, automated content analysis by the first author) to limit the biases due to the language in which the raw data were collected, we have to acknowledge that the meaning of the features (e.g., loving) may differ from one parent to another and from one culture to another. Our study was unable to determine the exact meaning of features for each participant. And given the large-scale, bottom-up research design of the current study, it would be an unrealistic goal to conduct a comprehensive comparison of meaning invariance across participants, as top-down studies typically do (e.g., imposing the existing framework) (Lansford et al., 2016). Therefore, future studies using a small-scale in-depth interview (e.g., Cheah et al., 2013) or a large-scale cross-country comparative study with a quantitative measure of “ideal-parent belief” (inspired by the result of our study) would be useful to supplement the current study.

Second, there was some subjectivity in the way we delineated parenting culture zones, an inherent feature of inductive research (Wagenmakers et al., 2018). In an effort to validate the relevance of our approach, we wanted to test the extent to which we might also have found interpretable results by grouping parents completely arbitrarily into five groups. After randomly assigning each participant to one of the five groups, we replicated exactly the same SNA analysis strategy as described in the method of the current research. The results across these random groups showed not only the same concepts across all “zones” (i.e., no “zone” specificity) but also a similar association between concepts (e.g., one predominant theme, i.e., loving; see Table S6.3) and a similar relation of educational groups to ideal-parent beliefs (e.g., the concepts of “patient” and “calm” were typical of the high-educated groups whereas “family” and “children” were typical of the lower-educated; see Figure S6.1). The fact that this analysis based on random groups yielded no interpretable difference between groups strongly supports the validity of our research.

4.2 Conclusion and Implication

Gathering parents from 37 countries across the five main continents, this study delineated specific types of ideal-parent beliefs. The generalization of any research finding from one culture to another should therefore be practiced with caution. These results highlight a need for more attention to cultural similarities and differences in parental beliefs. Further work should consider how these differences influence the validity of measurements and how they can be incorporated into parenting intervention research within and across cultures.

Table 6.1

The Frequency Counts of Educational Groups Across the Parenting Culture Zones

1. Asian				2. African				3. Hispanic-Italian			
Mothers (<i>N</i> = 980)		Fathers (<i>N</i> = 697)		Mother (<i>N</i> = 477)		Father (<i>N</i> = 512)		Mother (<i>N</i> = 1814)		Father (<i>N</i> = 1016)	
Educational Group	<i>N</i>	Educational Group	<i>N</i>	Educational Group	<i>N</i>	Educational Group	<i>N</i>	Educational Group	<i>N</i>	Educational Group	<i>N</i>
Low	188	Low	130	Low	76	Low	80	Low	98	Low	80
Middle	559	Middle	349	Middle	252	Middle	226	Middle	588	Middle	479
High	226	High	212	High	149	High	205	High	1073	High	446
4. Western I and Russian				5. Western II							
Mother (<i>N</i> = 2921)		Father (<i>N</i> = 835)		Mother (<i>N</i> = 2165)		Father (<i>N</i> = 457)					
Educational Group	<i>N</i>	Educational Group	<i>N</i>	Educational Group	<i>N</i>	Educational Group	<i>N</i>				
Low	71	Low	26	Low	10	Low	4				
Middle	859	Middle	350	Middle	883	Middle	198				
High	1972	High	453	High	1271	High	253				

Note. Parents were categorized into three educational group including low-educated (having less than 9 years from the age of 6), middle-educated (having 9-15 years), and high-educated (having at least 16 years) on the basis of number of successfully completed school years.

Table 6.2

The Themes and the Three Most Frequently-Occurring Concepts of Ideal-Mother/Father Beliefs Across the Parenting Culture Zones

1. Asian				2. African				3. Hispanic-Italian			
Ideal-Mother		Ideal-Father		Ideal-Mother		Ideal-Father		Ideal-Mother		Ideal-Father	
Themes	<i>N</i>	Themes	<i>N</i>	Themes	<i>N</i>	Themes	<i>N</i>	Themes	<i>N</i>	Themes	<i>N</i>
family	776	family	525	responsible	417	responsible	410	loving	1648	loving	884
tolerant	339	strong	240	affection	169	affection	153	affectionate	1055	affectionate	600
faithful	221	active	51	worker	90	worker	152	nice	49	worker	28
Concepts	<i>N</i>	Concepts	<i>N</i>	Concepts	<i>N</i>	Concepts	<i>N</i>	Concepts	<i>N</i>	Concepts	<i>N</i>
responsible	272	family	214	responsible	221	responsible ^a	210	loving	897	loving	476
family	257	responsible	155	respected	148	patience	85	responsible	625	responsible	274
children	198	children	121	affection	95	responsibility	82	affectionate	551	affectionate	213
4. Western I and Russian				5. Western II							
Ideal-Mother		Ideal-Father		Ideal-Mother		Ideal-Father					
Themes	<i>N</i>	Themes	<i>N</i>	Themes	<i>N</i>	Themes	<i>N</i>				
loving	2363	loving	721	loving	2117	loving	434				
patient	1903	patience	399	caring	874	empathy	55				
empathic	1495	strength	95	understanding	71	reliable	14				
Concepts	<i>N</i>	Concepts	<i>N</i>	Concepts	<i>N</i>	Concepts	<i>N</i>				
loving	1,411	loving	436	loving	916	loving	219				
patient	975	caring	309	patient	648	patient	141				
caring	742	patience	185	present	496	listen	83				

Note. *N* represents the frequency count (i.e., the total number of occurrences) of the themes and concepts. In Leximancer, each theme took its name directly from the most connected (i.e., most important) of the concepts it encompassed; thus, the names for the most connected concepts (usually, are the most frequently mentioned concepts) encompassed in a theme and the names of themes are identical. Besides, we requested Leximancer to merge all parts of speech for a word/word variants into a single word, and Leximancer automatically identified the potential stem words for variants, but we did not further transform all descriptors into a single consistent form (e.g., adjective form), in order to reduce subjective human interventions.

^a Although we asked Leximancer to merge parts of speech for a word, “responsibility” and “responsible” were still separated because of the need to construct the network map.

Figure 6.1

The Global Semantic Network Map: The Five Parenting Culture Zones and Their Country Composition

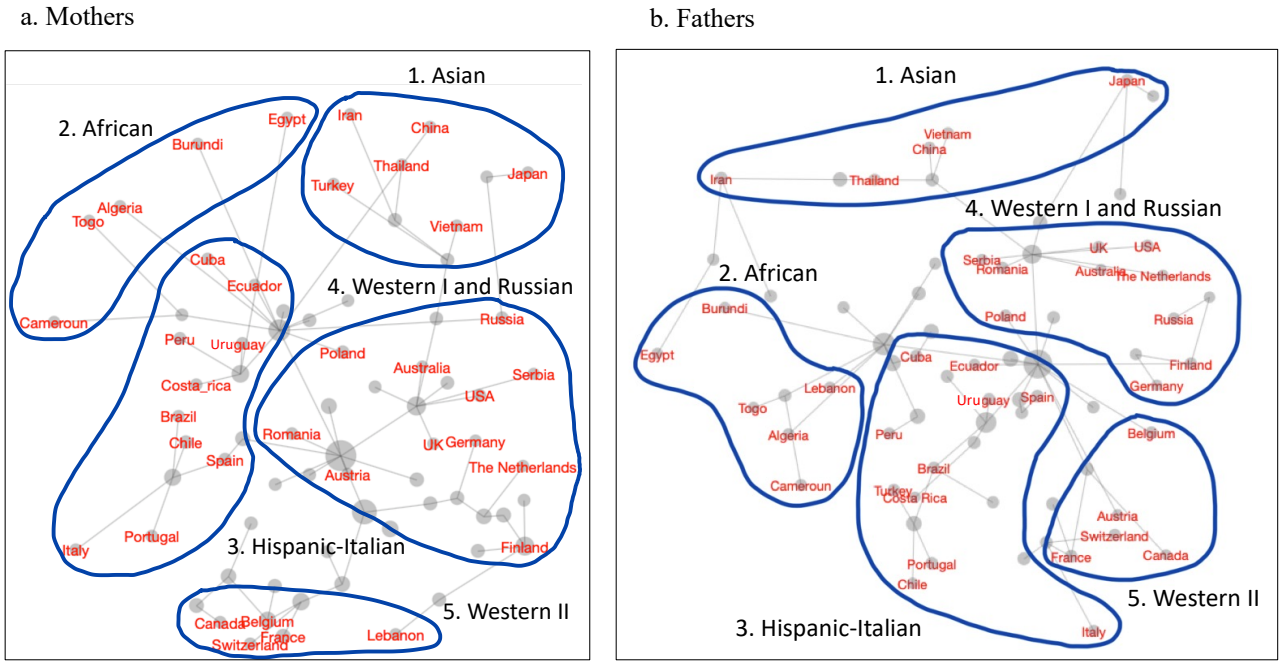
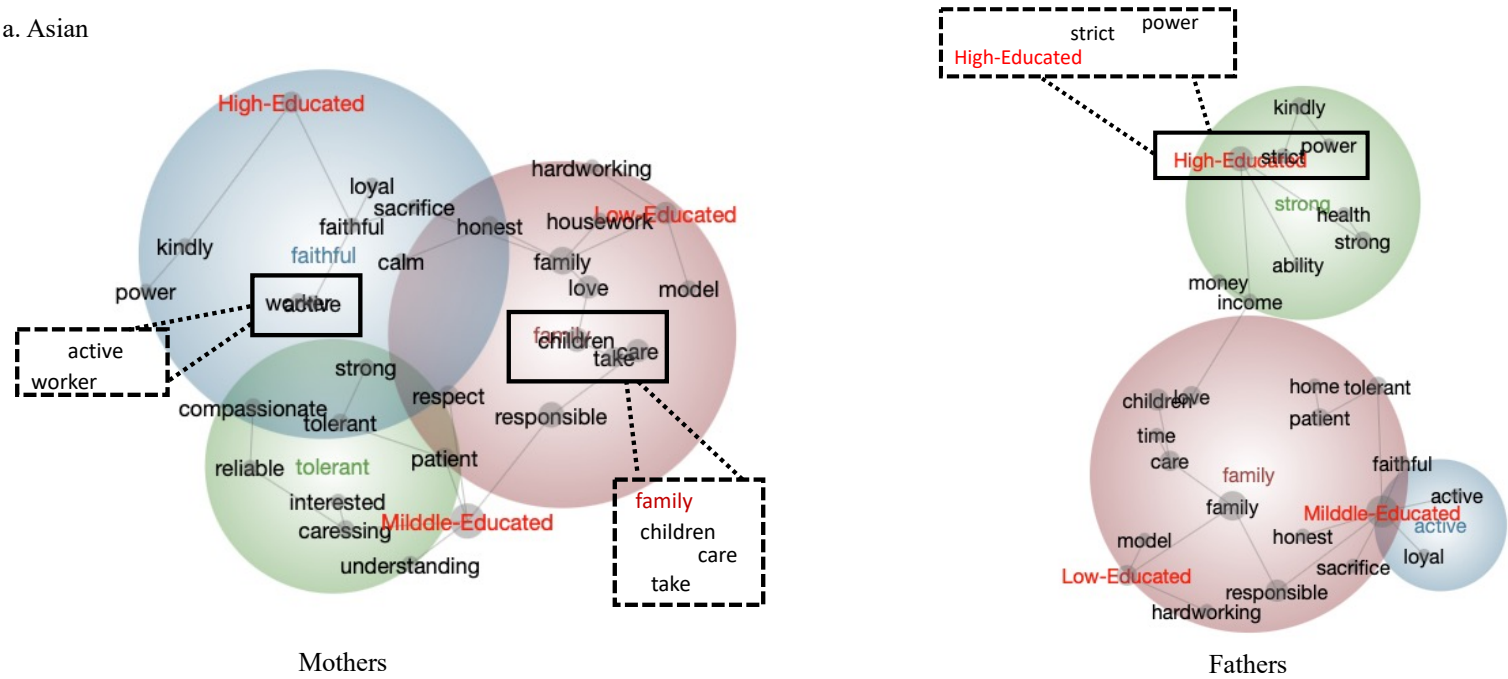


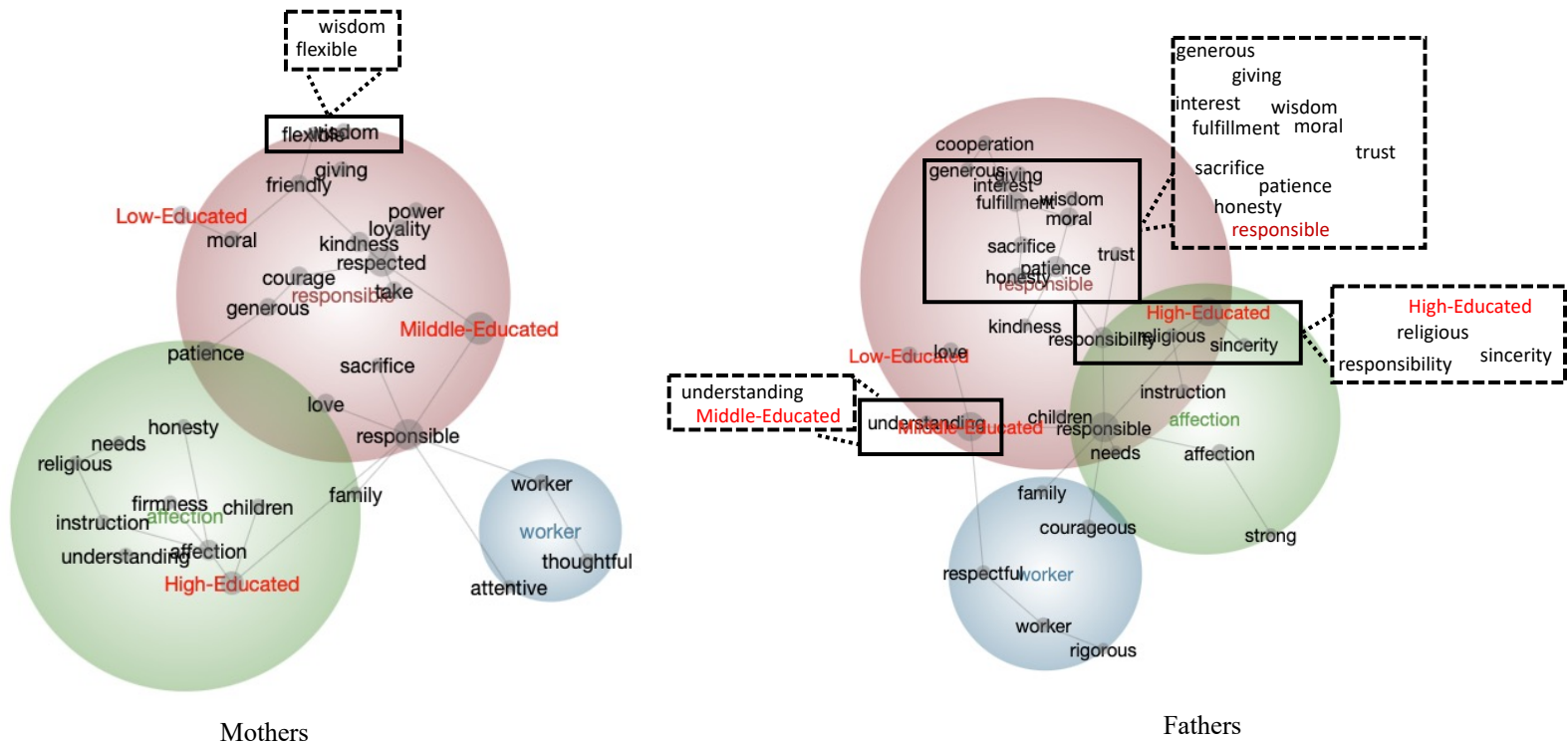
Figure 6.2

The Semantic Network Maps of the Ideal-Parent Beliefs and the Educational Groups in the Five Parenting Culture Zones

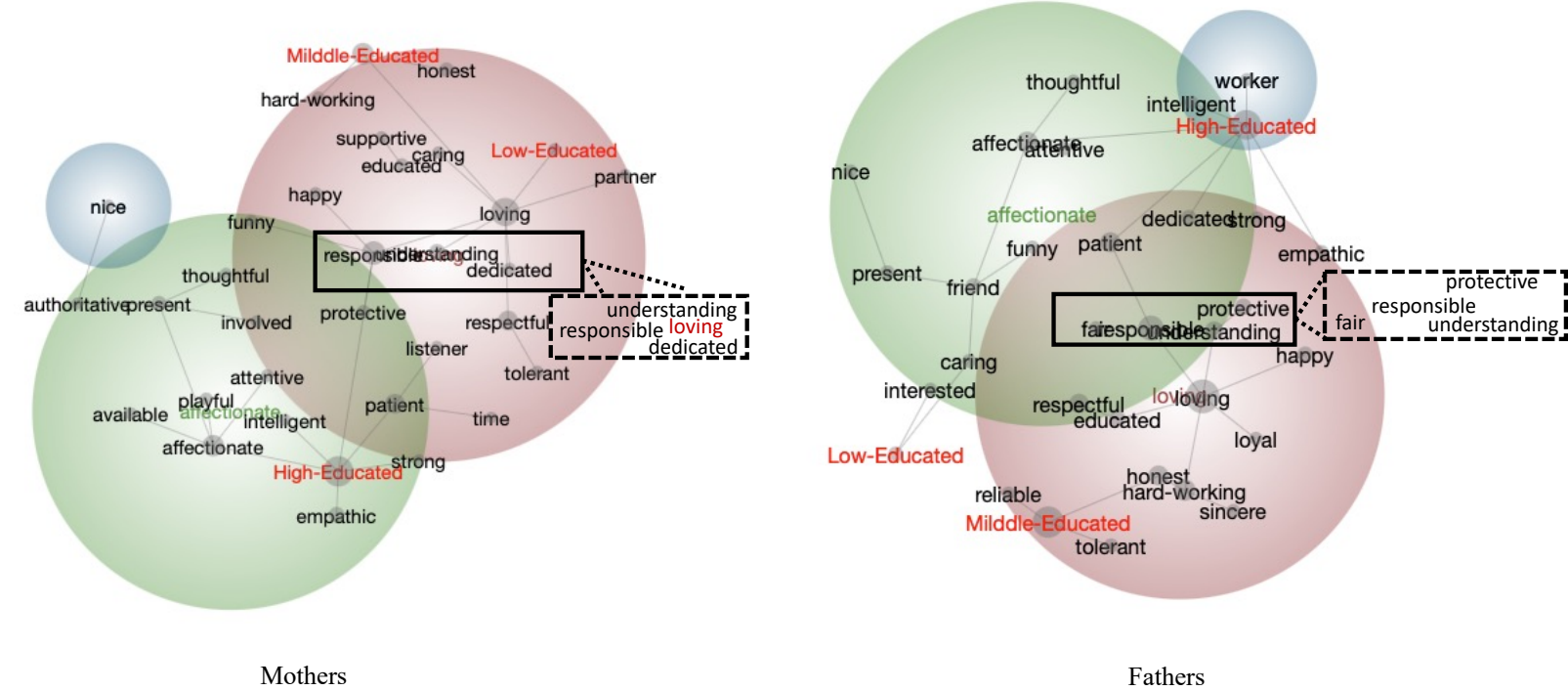
a. Asian



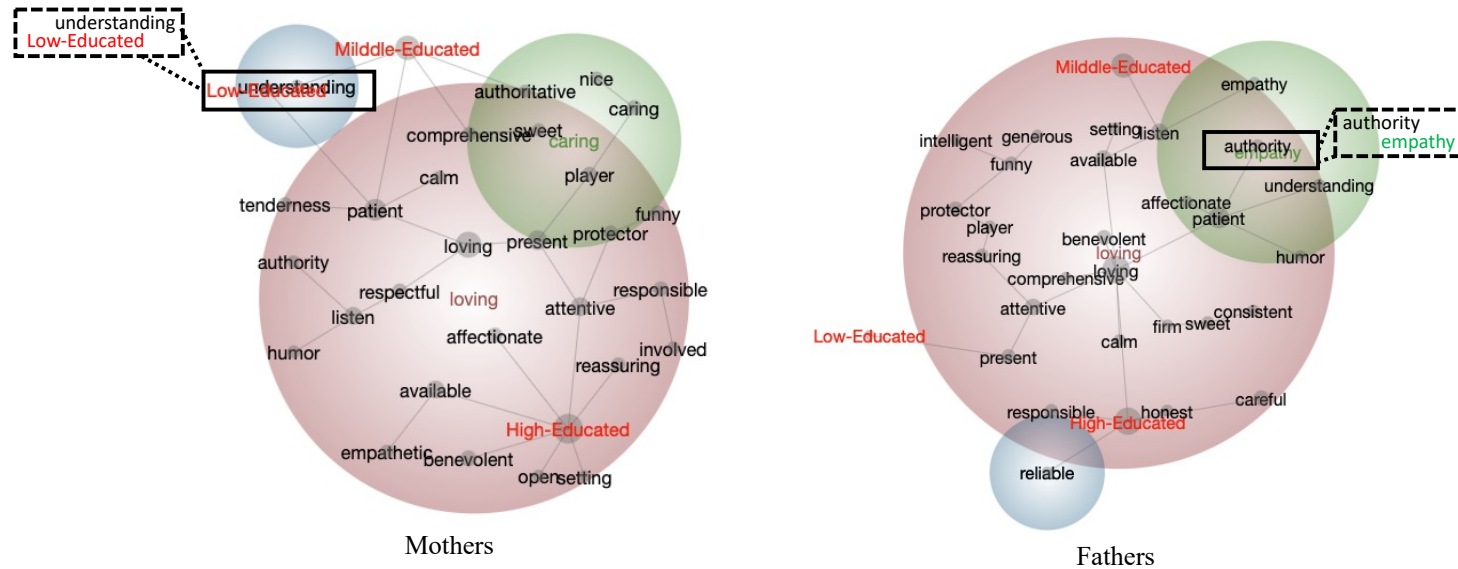
b. African



c. Hispanic-Italian



e. Western II (mainly consisting of French-Speaking countries)



Note. The colors of bubbles are denoted by heat-mapping, with a hotter color (red, orange) representing the most important themes (mentioned more frequently by parents), and a cooler color (blue, green), representing those less important. Black bordered and dashed blocks are added manually to show the overlapping words.

5. Supplementary Material

First, the sociodemographic characteristics of fathers and mothers in each country is presented in Table S6.1 and Table S6.2. Second, we made supplementary analysis to check the validity of our analysis. After randomly assigning each participant to one of the five groups, we replicated exactly the same SNA analysis strategy as described in the method of the current research. The results showed not only the same concepts but also a similar association between concepts (e.g., one predominant theme, i.e., loving; see Table S6.3) and relation of educational groups to ideal-parent beliefs (e.g., the concepts of "patient" and "calm" were typical of the high-educated groups whereas "family" and "children" typical of lower educated; see Figure S6.1).

Table S6.1

Sociodemographic Profiles of Father Sample in Each Country

Countries	Final Sample size	Age ^a	Educational level ^a	Working status (% paid profession)	% Two mixed-gender parents	Family types					Number of biological children a	Number of children in the household a	Age of the youngest child a	Age of the oldest child a	Number of women caring for children a	Number of men caring for children a	Hours with children a	Neighborhood ^b		
						% Single parent	% Step-family	% Two same-gender parents	% Multigenerational	% Polygamous								% disadvantaged	% average	% prosperous
Algeria	113	44.81 (9.70)	14.28 (4.97)	93	74	2	0	0	25	0	2.77 (1.58)	2.80 (1.70)	7.57 (8.05)	12.82 (10.45)	1.49 (1.03)	1.36 (0.91)	5.91 (3.33)	6	82	12
Australia	80	48.19 (11.07)	13.28 (2.88)	65	80	8	8	0	3	0	2.14 (1.10)	1.74 (0.78)	10.78 (7.40)	15.54 (9.83)	0.91 (0.36)	0.93 (0.31)	5.55 (3.74)	9	69	23
Austria	15	40.27 (10.79)	14.47 (4.76)	80	10 0	0	0	0	0	0	2.00 (1.56)	1.60 (0.74)	4.40 (5.49)	7.80 (11.0)	1.13 (0.52)	1.00 (0.38)	5.87 (2.83)	13	60	27

		)											1)							
Belgium	172	40.20 (8.12)	16.32 (2.56)	97	87	5	6	1	1	0	2.05 (1.06)	2.02 (1.18)	6.84 (7.10)	9.17 (8.20)	1.15 (0.75)	1.05 (0.45)	5.14 (2.46)	5	47	49
Brazil	81	45.23 (9.23)	15.70 (5.21)	98	94	1	4	0	1	0	1.65 (0.88)	1.50 (0.75)	11.14 (8.40)	12.56 (8.34)	1.14 (0.57)	1.04 (0.44)	3.68 (2.15)	10	70	20
Burundi	90	41.31 (9.12)	10.50 (5.75)	79	91	9	0	0	0	0	3.76 (2.26)	4.21 (2.38)	4.85 (5.70)	12.25 (7.82)	1.48 (0.75)	1.53 (1.09)	4.36 (3.10)	25	55	21
Cameroun	99	40.19 (10.39)	14.49 (3.40)	80	67	15	5	0	5	3	3.54 (2.72)	4.02 (3.21)	5.11 (6.79)	14.80 (9.91)	1.43 (0.99)	1.26 (0.75)	6.95 (4.39)	23	72	5
		)																		
Canada	16	33.25 (7.09)	14.50 (2.48)	94	75	13	13	0	0	0	2.00 (0.73)	2.13 (0.62)	2.87 (3.00)	6.25 (4.06)	1.50 (2.31)	1.25 (1.34)	6.06 (3.02)	13	69	19
Chile	55	41.15 (9.54)	18.64 (3.67)	93	80	2	15	2	2	0	1.87 (0.92)	1.65 (0.73)	7.68 (10.63)	11.11 (11.00)	1.27 (0.71)	1.07 (0.47)	7.13 (6.29)	2	62	36
China	178	40.24 (4.35)	10.36 (2.52)	97	82	4	4	0	10	0	1.37 (0.50)	1.37 (0.50)	8.75 (4.71)	14.20 (2.76)	1.93 (0.94)	1.80 (0.93)	3.20 (2.38)	7	87	6
Costa Rica	37	40.57 (8.72)	15.64 (4.91)	89	81	3	3	0	11	0	1.73 (1.15)	1.43 (0.69)	8.47 (7.67)	10.65 (9.50)	1.35 (0.89)	1.16 (0.60)	6.51 (4.82)	5	54	41
Cuba	102	40.24 (10.21)	13.48 (3.06)	91	56	0	7	0	36	1	1.78 (0.59)	1.55 (0.54)	8.88 (5.39)	13.33 (9.15)	1.64 (0.64)	1.42 (0.62)	9.73 (3.69)	8	63	29
		)																		

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Ecuador	34	33.65 (6.31)	18.41 (2.54)	94	82	0	6	0	12	0	1.65 (0.81)	1.62 (0.70)	2.93 (2.96)	7.03 (6.44)	1.76 (0.78)	1.41 (0.56)	5.82 (3.54)	3	59	38
Egypt	105	49.06 (7.11)	12.03 (3.66)	1	88	4	1	0	8	0	3.12 (1.22)	2.89 (1.40)	12.47 (6.35)	20.16 (8.06)	1.24 (0.81)	0.73 (1.14)	7.66 (2.36)	30	55	15
Finland	134	37.77 (7.22)	17.42 (3.99)	91	82	2	14	0	1	0	2.19 (1.50)	2.30 (1.58)	3.45 (3.24)	6.91 (5.05)	1.04 (0.46)	0.91 (0.29)	5.89 (2.64)	0	100	0
France	162	43.68 (9.30)	15.29 (3.14)	95	80	6	12	1	1	0	2.21 (0.95)	1.81 (0.85)	8.95 (6.64)	13.36 (9.30)	1.15 (1.29)	0.98 (0.70)	6.11 (3.29)	3	52	46
Germany	30	36.60 (8.51)	14.77 (6.17)	80	73	7	13	0	7	0	1.60 (0.77)	1.60 (0.81)	5.62 (4.91)	7.93 (7.02)	1.07 (0.52)	1.10 (0.40)	5.30 (2.96)	7	67	27
Iran	175	42.22 (9.35)	13.57 (3.50)	95	82	13	4	0	0	1	1.87 (1.11)	1.73 (0.83)	9.95 (7.25)	13.74 (9.69)	1.02 (0.36)	1.03 (0.23)	3.94 (2.15)	12	61	28
Italy	94	47.15 (9.86)	14.29 (3.84)	92	89	3	6	0	1	0	1.71 (0.81)	1.65 (0.80)	12.29 (7.77)	14.20 (9.57)	1.11 (0.43)	1.01 (0.31)	4.86 (3.43)	2	71	27
Japan	182	53.73 (12.53)	15.16 (2.42)	84	90	1	0	1	6	0	2.00 (0.78)	1.63 (0.77)	14.61 (9.82)	21.16 (12.0 2)	1.03 (0.48)	1.10 (0.37)	2.99 (2.09)	2	80	19
Lebanon	61	40.13 (7.58)	15.98 (3.68)	98	95	3	2	0	0	0	2.34 (1.15)	2.11 (1.00)	7.09 (6.33)	9.92 (8.16)	1.25 (0.47)	1.00 (0.00)	5.84 (1.86)	7	69	25
Peru	88	43.06	13.72	94	73	5	11	1	10	0	1.99	1.97	11.25	15.33	1.59	1.41	6.26	8	68	24

		(12.54)	(4.29)								(0.93)	(1.03)	(10.2 7)	(11.7 5)	(0.93)	(0.91)	(4.30)			
Poland	123	39.80 (7.22)	16.75 (3.89)	98	87	2	4	0	7	0	1.93 (0.88)	1.85 (0.80)	7.31 (5.38)	10.49 (6.38)	1.19 (0.69)	1.11 (0.64)	4.49 (2.17)	8	76	15
Portugal	151	44.28 (8.22)	13.85 (4.25)	97	92	1	5	0	1	0	1.71 (0.87)	1.58 (0.59)	10.61 (6.99)	12.81 (8.24)	0.98 (0.36)	0.90 (0.44)	4.30 (2.09)	1	65	34
Romania	114	39.29 (6.20)	16.10 (3.12)	99	95	2	2	0	2	0	1.51 (0.71)	1.54 (0.64)	5.58 (4.54)	8.34 (5.22)	1.47 (0.69)	1.18 (0.63)	4.57 (2.30)	5	36	59
Russia	88	35.94 (6.86)	14.61 (3.66)	98	84	0	11	0	5	0	1.69 (0.90)	1.72 (0.88)	4.15 (3.92)	7.78 (6.36)	1.28 (0.71)	1.08 (0.35)	3.98 (2.11)	1	56	43
Serbia	35	39.17 (6.65)	14.63 (5.22)	94	94	3	0	0	0	0	1.63 (0.49)	1.66 (0.54)	4.94 (4.85)	7.51 (5.53)	0.94 (0.64)	1.09 (0.51)	5.57 (2.37)	6	60	34
Spain	126	42.40 (7.76)	15.48 (3.03)	94	94	2	3	0	0	0	1.70 (0.64)	1.66 (0.60)	8.33 (6.72)	9.93 (8.29)	1.63 (0.87)	1.40 (0.72)	5.02 (3.46)	10	74	17
Switzerland	92	40.25 (7.62)	16.29 (3.90)	99	85	4	10	1	0	0	1.95 (0.95)	1.93 (0.84)	5.42 (6.59)	8.68 (7.16)	1.13 (0.50)	0.99 (0.35)	6.42 (4.06)	0	55	45
Thailand	90	43.70 (6.08)	3.36 (1.11)	99	67	0	2	0	30	0	1.81 (0.60)	1.83 (0.71)	8.93 (3.95)	12.73 (4.63)	1.89 (1.02)	1.56 (0.91)	5.30 (3.70)	0	53	47
The Netherlands	34	41.50 (10.21)	15.94 (2.09)	97	94	3	3	0	0	0	2.03 (1.00)	1.80 (0.94)	9.59 (8.09)	8.76 (8.64)	1.32 (0.84)	1.26 (0.79)	4.35 (1.56)	3	59	38

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Togo	44	38.34 (8.45)	13.79 (2.88)	86	71	18	0	0	2	9	2.64 (2.00)	2.91 (1.87)	3.19 (3.81)	9.57 (8.30)	1.11 (0.39)	1.23 (0.71)	7.88 (5.00)	23	70	7
Turkey	144	37.41 (6.42)	14.01 (3.09)	75	86	7	1	0	6	0	1.67 (0.74)	1.60 (0.63)	4.55 (3.67)	7.42 (5.83)	1.15 (0.47)	0.97 (0.36)	7.03 (4.06)	4	71	26
The UK	86	42.26 (9.39)	14.37 (3.09)	94	90	6	4	0	1	0	1.97 (0.99)	1.76 (0.72)	9.66 (7.23)	13.27 (8.70)	0.99 (0.19)	0.98 (0.26)	4.62 (2.42)	5	62	34
Uruguay	104	36.45 (7.28)	12.02 (4.77)	94	84	0	8	0	7	0	1.64 (0.77)	1.66 (0.76)	2.68 (1.71)	6.19 (5.72)	1.29 (0.66)	1.11 (0.42)	10.19 (4.76)	2	77	21
The USA	111	41.55 (10.16)	14.55 (3.19)	87	76	13	5	0	5	1	1.93 (1.11)	1.86 (1.04)	7.22 (6.48)	11.45 (8.22)	1.01 (0.95)	0.96 (0.74)	6.79 (5.52)	14	62	24
Vietnam	72	38.31 (9.13)	14.13 (3.85)	97	78	0	0	1	19	0	1.61 (0.80)	1.48 (0.61)	7.51 (5.41)	9.22 (9.10)	1.54 (0.72)	1.34 (0.75)	3.71 (2.44)	6	58	36
Pooled sample	3,517	41.96 (9.63)	14.23 (4.40)	89	83	4	5	0	6	0	2.02 (1.23)	1.94 (1.27)	7.78 (7.08)	11.95 (9.04)	1.28 (0.79)	1.15 (0.67)	5.48 (3.67)	7	66	27

^a Means are reported while standard deviations are in parentheses.

^b Parents perceived their home resided in a relatively disadvantaged, prosperous, or average neighborhood.

Table S6.2

Sociodemographic Profiles of Mother Sample in Each Country

								Family types											Neighborhood		
								% Step-family	% Two same-gender parents	% Multigenerational									% prosperous	% average	% disadvantaged
Age ^a				Working status (% paid profession)	% Two mixed-gender parents	% Single parent				% Polygamous	Number of biological children ^a	Number of children in the household ^a	Age of the youngest child ^a	Age of the oldest child ^a	Number of women caring for children ^a	Number of men caring for children ^a	Hours with children ^a				
Final Sample size																					
Countries																					
Algeria	159	39.10 (10.35)	13.92 (4.97)	56	64	2	0	0	35	0	2.47 (1.51)	2.45 (1.41)	7.75 (7.67)	12.07 (10.41)	1.69 (1.12)	1.48 (1.05)	10.3 2 (6.62)	4	83	13	
Australia	85	41.61 (8.41)	12.80 (2.86)	49	61	25	9	0	4	0	2.06 (0.99)	1.86 (1.00)	8.61 (7.33)	12.88 (7.47)	1.06 (0.56)	0.86 (0.64)	7.45 (3.93)	6	78	17	

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Austria	134	33.10 (5.79)	12.99 (2.86)	72	87	6	3	1	4	0	1.56 (0.85)	1.56 (0.84)	2.45 (4.08)	4.23 (5.07)	1.10 (0.37)	0.99 (0.40)	10.9 3 (4.81))	2	72	27
Belgium	1078	37.83 (7.13)	16.48 (2.56)	91	79	11	8	1	0	0	2.09 (0.97)	2.11 (0.95)	5.71 (5.67)	8.79 (6.95)	1.21 (0.66)	0.99 (0.55)	5.65 3.23 (3.23))	3	48	49
Brazil	128	41.82 (8.19)	16.28 (3.81)	70	89	3	5	0	1	0	1.55 (0.75)	1.51 (0.70)	8.88 (7.40)	11.08 (7.96)	1.20 (0.51)	1.02 (0.46)	6.54 5.06 (5.06))	15	68	17
Burundi	87	36.79 (9.37)	10.86 (4.86)	56	84	16	0	0	0	0	3.55 (1.81)	3.64 (2.11)	5.16 (5.15)	13.00 (8.14)	1.69 (1.21)	1.28 (0.98)	7.15 4.59 (4.59))	24	51	25
Cameroun	97	36.81 (8.68)	14.06 (3.02)	69	74	18	2	0	5	0	2.69 (1.55)	3.52 (2.67)	5.51 (6.54)	13.74 (8.92)	1.65 (1.23)	1.05 (0.91)	9.93 5.52 (5.52))	20	71	9
Canada	196	34.40 (6.72)	15.92 (2.67)	83	84	7	8	0	1	0	2.15 (0.87)	2.15 (0.85)	3.88 (4.51)	7.33 (6.22)	1.07 (0.45)	0.99 (0.39)	9.26 6.70 (6.70))	8	62	30
Chile	327	35.80 (5.63)	17.69 (3.31)	74	71	13	7	0	8	0	1.72 (0.88)	1.83 (1.45)	4.22 (4.54)	7.90 (6.52)	1.57 (0.82)	0.98 (0.59)	11.1 4 (7.51) (7.51)	2	60	38

																	)			
China	211	37.91 (4.03)	10.78 (2.52)	91	79	6	2	1	12	0	1.32 (0.47)	1.34 (0.52)	8.25 (4.69)	14.08 (3.43)	1.83 (0.80)	1.60 (0.79)	4.09 (2.40)	4	92	4
																	)			
Costa Rica	121	36.17 (6.77)	17.13 (4.18)	81	72	10	6	0	8	0	1.53 (0.75)	1.48 (0.68)	7.34 (7.11)	8.30 (7.67)	1.55 (0.84)	1.06 (0.66)	10.8 0 (6.29)	4	65	31
																	)			
Cuba	137	40.06 (10.36)	13.84 (3.12)	78	47	12	15	0	23	0	1.63 (0.62)	1.47 (0.61)	11.59 (8.47)	14.82 (9.50)	1.68 (0.80)	1.15 (0.74)	11.7 7 (4.67)	11	60	29
																	)			
Ecuador	78	31.95 (6.81)	16.58 (2.73)	83	59	18	6	0	15	1	1.63 (0.70)	1.64 (0.68)	5.31 (4.34)	8.35 (6.57)	2.06 (1.09)	1.38 (0.94)	8.40 (5.40)	1	74	24
																	)			
Egypt	109	46.75 (5.54)	10.95 (3.41)	2	74	18	0	1	6	0	3.51 (1.49)	3.07 (1.39)	14.63 (6.42)	25.03 (5.30)	1.36 (1.03)	1.23 (1.07)	9.04 (4.02)	6	69	25
																	)			
Finland	1366	36.28 (6.40)	17.69 (3.29)	75	78	10	10	0	0	0	2.16 (1.14)	2.25 (1.27)	4.43 (4.29)	7.59 (5.30)	0.91 (0.37)	0.87 (0.44)	7.90 (3.75)	0	100	0
																	)			
France	589	37.07 (7.42)	15.06 (2.58)	82	76	13	9	1	1	0	1.90 (0.86)	1.85 (0.83)	5.91 (5.33)	8.78 (6.75)	1.42 (1.08)	0.98 (0.67)	8.65 (5.25)	3	58	39

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																	)			
Germany	93	35.41 (7.72)	13.59 (4.34)	69	72	17	7	0	2	0	1.88 (1.21)	1.77 (1.00)	4.89 (4.93)	8.14 (7.18)	1.02 (0.47)	0.84 (0.54)	8.38 (4.05)	5	76	18
																	)			
Iran	179	38.21 (7.97)	13.55 (3.15)	40	85	11	3	0	1	0	1.87 (0.94)	1.67 (0.70)	10.55 (7.94)	14.12 (9.35)	1.13 (0.47)	0.98 (0.40)	7.56 (3.56)	12	56	33
																	)			
Italy	218	42.14 (8.34)	15.26 (3.70)	84	85	6	5	0	3	0	1.81 (0.71)	1.78 (0.70)	8.50 (6.86)	11.94 (8.68)	1.15 (0.57)	1.02 (0.43)	8.33 (5.54)	2	77	21
																	)			
Japan	148	53.33 (15.71)	13.77 (2.02)	43	71	16	1	0	5	0	1.96 (0.77)	1.54 (0.75)	13.60 (11.58)	23.65 (15.81)	1.14 (0.42)	0.76 (0.53)	6.34 (5.01)	1	85	14
																	)			
Lebanon	117	36.74 (8.30)	16.56 (3.48)	55	94	4	1	0	1	0	2.26 (1.06)	2.18 (0.99)	7.99 (6.32)	10.67 (7.83)	1.26 (0.52)	1.01 (0.36)	7.86 (2.85)	3	70	27
																	)			
Peru	174	39.34 (9.81)	14.89 (5.00)	81	61	20	6	0	12	0	1.94 (0.87)	1.99 (1.13)	8.40 (7.45)	12.92 (8.82)	2.05 (1.25)	1.41 (1.20)	9.49 (5.87)	7	66	27
																	)			
Poland	294	33.00 (5.32)	17.87 (3.32)	67	87	6	3	0	5	0	1.66 (1.00)	1.65 (0.88)	3.54 (4.13)	4.98 (4.78)	1.19 (0.72)	0.96 (0.61)	9.45 (4.98)	3	77	19
																	)			

Portugal	163	39.43 (7.37)	15.73 (3.00)	90	88	3	7	0	3	0	1.76 (0.86)	1.77 (0.78)	5.78 (5.26)	9.00 (7.49)	1.04 (0.51)	0.89 (0.37)	5.48 (3.29)	1	62	36
Romania	168	35.95 (5.11)	17.35 (2.53)	85	89	4	3	0	4	0	1.56 (0.62)	1.54 (0.61)	3.41 (3.76)	6.34 (5.16)	1.43 (0.74)	1.09 (0.65)	9.43 (7.54)	2	23	76
Russia	214	33.66 (6.47)	14.38 (4.30)	79	74	9	9	0	6	0	1.67 (0.79)	1.69 (0.80)	4.03 (3.93)	8.05 (6.24)	1.28 (0.67)	1.02 (0.61)	9.26 (5.52)	1	61	39
Serbia	107	37.52 (5.20)	14.84 (5.04)	90	95	2	0	0	2	0	1.64 (0.68)	1.65 (0.69)	4.01 (4.22)	6.63 (5.25)	1.25 (0.70)	1.06 (0.56)	8.43 (5.12)	2	46	52
Spain	295	40.86 (8.12)	15.39 (4.11)	83	80	9	6	0	3	0	1.74 (0.75)	1.73 (0.74)	8.42 (7.57)	9.84 (8.54)	1.44 (1.05)	1.14 (0.68)	9.42 (6.46)	5	84	11
Switzerland	185	39.28 (6.40)	15.98 (3.07)	87	80	12	8	1	0	0	2.00 (0.83)	2.05 (0.87)	6.29 (4.95)	8.78 (5.80)	1.14 (0.62)	0.96 (0.48)	7.34 (4.77)	0	48	52
Thailand	115	42.63 (5.60)	3.26 (1.05)	97	71	4	1	1	23	0	1.75 (0.63)	1.80 (0.74)	8.97 (3.74)	12.90 (4.74)	1.83 (1.03)	1.48 (0.81)	6.24 (3.95)	0	50	50
The	102	36.10	16.97	95	90	4	3	1	0	0	1.75	1.68	4.48	5.51	1.50	1.06	7.09	4	50	46

Exploring the Roots of Parental Burnout from Contemporary Western Parenting Culture

Netherlands		(6.93)	(2.30)								(0.71)	(0.72)	(4.87)	(6.11)	(0.99)	(0.50)	(3.09)			
																	)			
Togo		38.92	12.96	92	76	16	4	0	0	4	2.40	3.12	7.51	15.84	1.52	0.84	11.1			
	25	(10.67)	(2.51)								(1.29)	(1.76)	(7.83)	(9.88)	(0.59)	(0.37)	6	16	80	4
																	)			
Turkey		35.95	13.68	78	87	6	0	0	5	0	1.65	1.63	4.18	7.31	1.14	1.04	6.27			
	239	(5.91)	(3.61)								(0.62)	(0.60)	(2.85)	(5.35)	(0.49)	(0.39)	(3.01)	6	74	20
																	)			
The UK		37.31	15.75	78	88	9	3	0	0	0	1.91	1.80	4.92	6.99	1.03	0.95	8.03			
	117	(7.01)	(2.94)								(0.89)	(0.72)	(5.33)	(6.07)	(0.21)	(0.52)	(4.43)	6	48	46
																	)			
Uruguay		34.10	13.08	87	73	16	4	0	4	0	1.57	1.55	2.84	6.10	1.49	1.03	12.5			
	173	(5.91)	(4.65)								(0.75)	(0.73)	(1.71)	(4.85)	(0.80)	(0.60)	4	3	72	25
																	)			
The USA		36.88	15.48	71	68	20	7	0	4	0	2.02	1.96	5.83	10.56	1.15	0.88	8.09			
	241	(8.58)	(3.36)								(1.09)	(1.04)	(5.39)	(7.36)	(0.72)	(0.74)	(5.10)	8	74	18
																	)			
Vietnam		35.61	13.84	94	79	4	0	1	15	0	1.58	1.65	5.00	8.08	1.42	1.16	5.24			
	88	(6.57)	(4.24)								(0.66)	(1.22)	(4.72)	(6.51)	(0.95)	(0.75)	(3.75)	4	44	52
																	)			

Pooled sample	8,357	37.56 (8.02)	15.45 (4.05)	77	78	10	6	0	4	0	1.94 (1.02)	1.95 (1.10)	5.90 (5.96)	9.45 (7.83)	1.28 (0.79)	1.02 (0.64)	8.08 (5.14)	4	69	27
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^a Means are reported while standard deviations are in parentheses.

^b Parents perceived their home resided in a relatively disadvantaged, prosperous, or average neighborhood.

Table S6.3*The Themes and the Three Most Frequently-Occurring Concepts of Ideal-Mother/Father Beliefs Across the Random Groups*

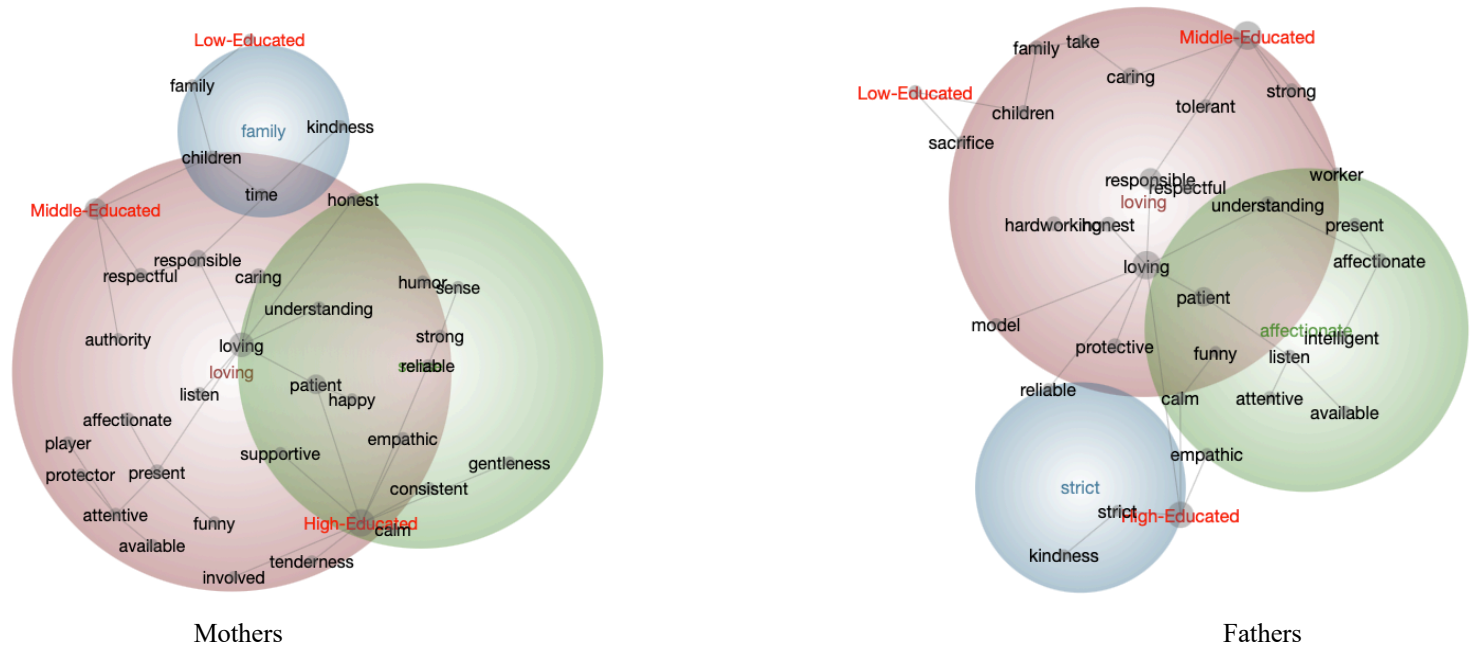
Random Group 1				Random Group 2				Random Group 3			
Ideal-Mother (<i>N</i> = 1655)		Ideal-Father (<i>N</i> = 726)		Ideal-Mother (<i>N</i> = 1601)		Ideal-Father (<i>N</i> = 744)		Ideal-Mother (<i>N</i> = 1670)		Ideal-Father (<i>N</i> = 678)	
Themes	#	Themes	#	Themes	#	Themes	#	Themes	#	Themes	#
loving	1536	loving	633	loving	1480	loving	647	loving	1492	loving	573
sense	488	affectionate	249	empathic	495	strong	159	empathic	631	affectionate	223
family	174	strict	52	available	278	children	113	family	321	family	83
Concepts	#	Concepts	#	Concepts	#	Concepts	#	Concepts	#	Concepts	#
loving	680	loving	280	loving	672	loving	252	loving	689	loving	235
patient	449	responsible	181	patient	452	responsible	176	patient	481	responsible	163
responsible	385	patient	152	responsible	347	patient	160	responsible	357	patient	129
Random Group 4				Random Group 5							
Ideal-Mother (<i>N</i> = 1715)		Ideal-Father (<i>N</i> = 681)		Ideal-Mother (<i>N</i> = 1716)		Ideal-Father (<i>N</i> = 688)					
Themes	#	Themes	#	Themes	#	Themes	#				
loving	1560	loving	572	loving	1596	loving	611				
empathic	625	family	256	humor	395	family	113				
family	252	widsom	20	family	300	strict	17				
Concepts	#	Concepts	#	Concepts	#	Concepts	#				
loving	712	loving	261	loving	699	loving	232				
patient	466	responsible	143	patient	498	responsible	164				
responsible	370	patient	132	responsible	385	patient	134				

Note. # represents hits (i.e., the number of texts associated with the theme) of the themes or the frequency count (i.e., the total number of occurrences) of the concepts.

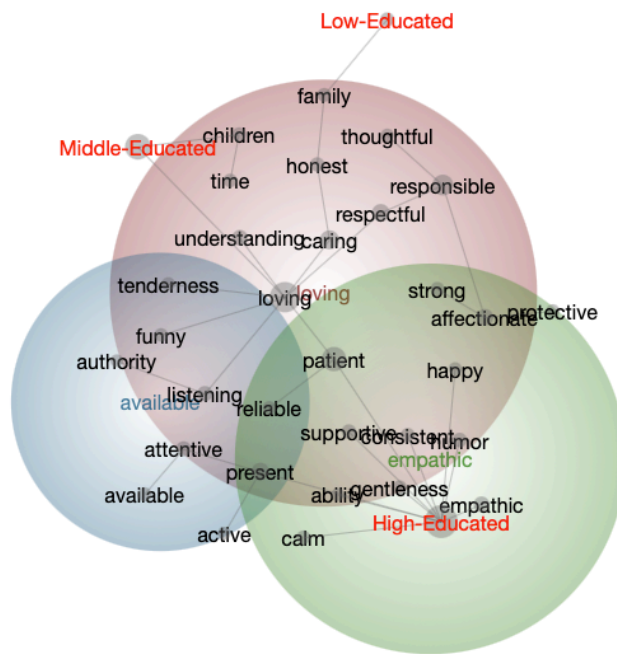
Figure S6.1

The Semantic Network Maps of the Ideal-Parent Beliefs and the Educational Groups in the Five Random Groups

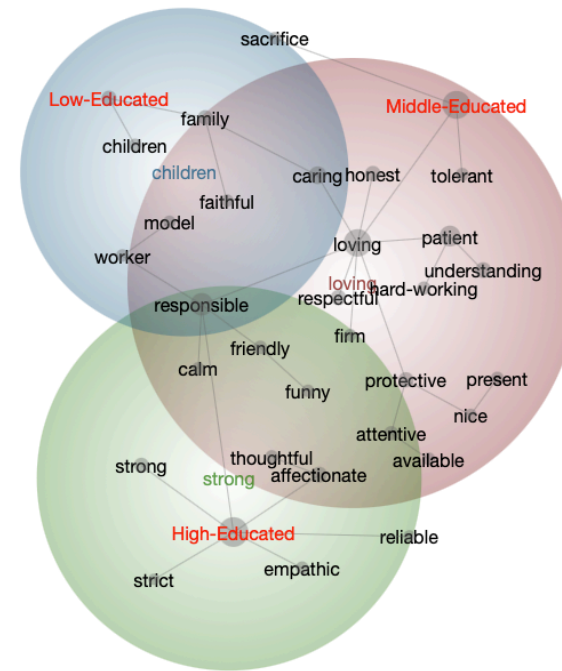
a. Random Group 1



b. Random Group 2

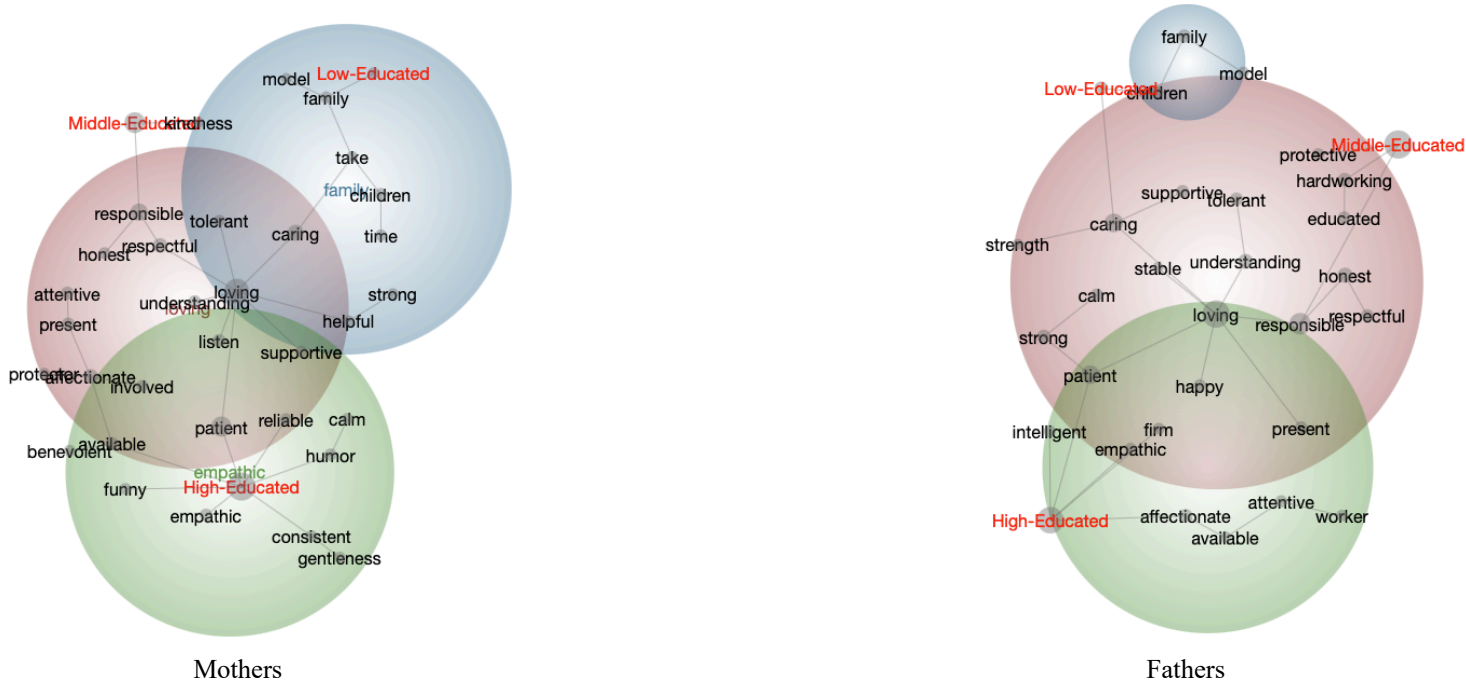


Mothers

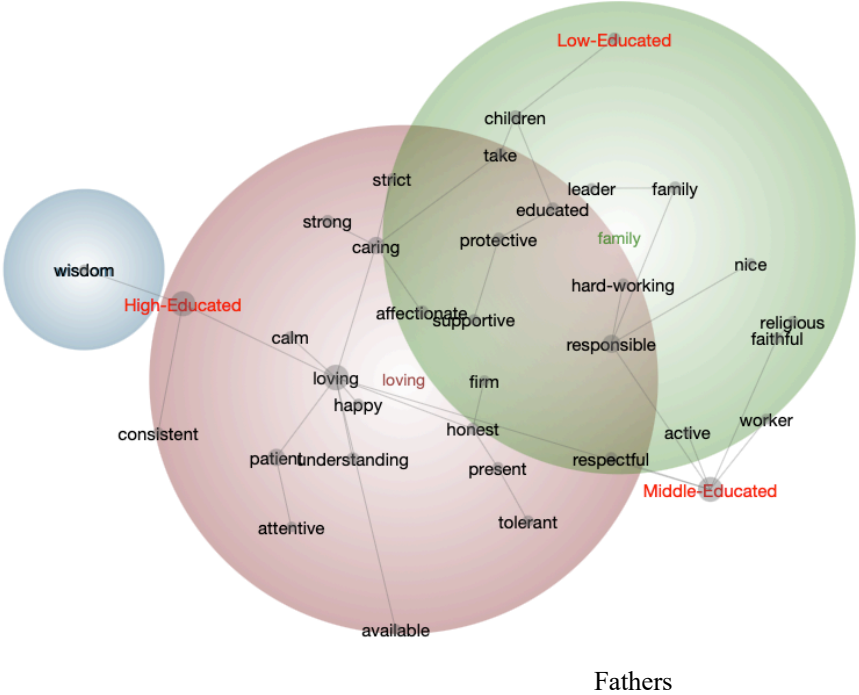
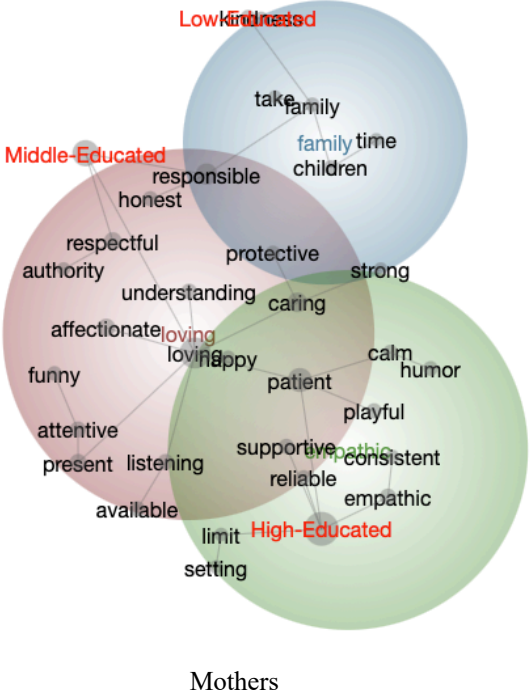


Fathers

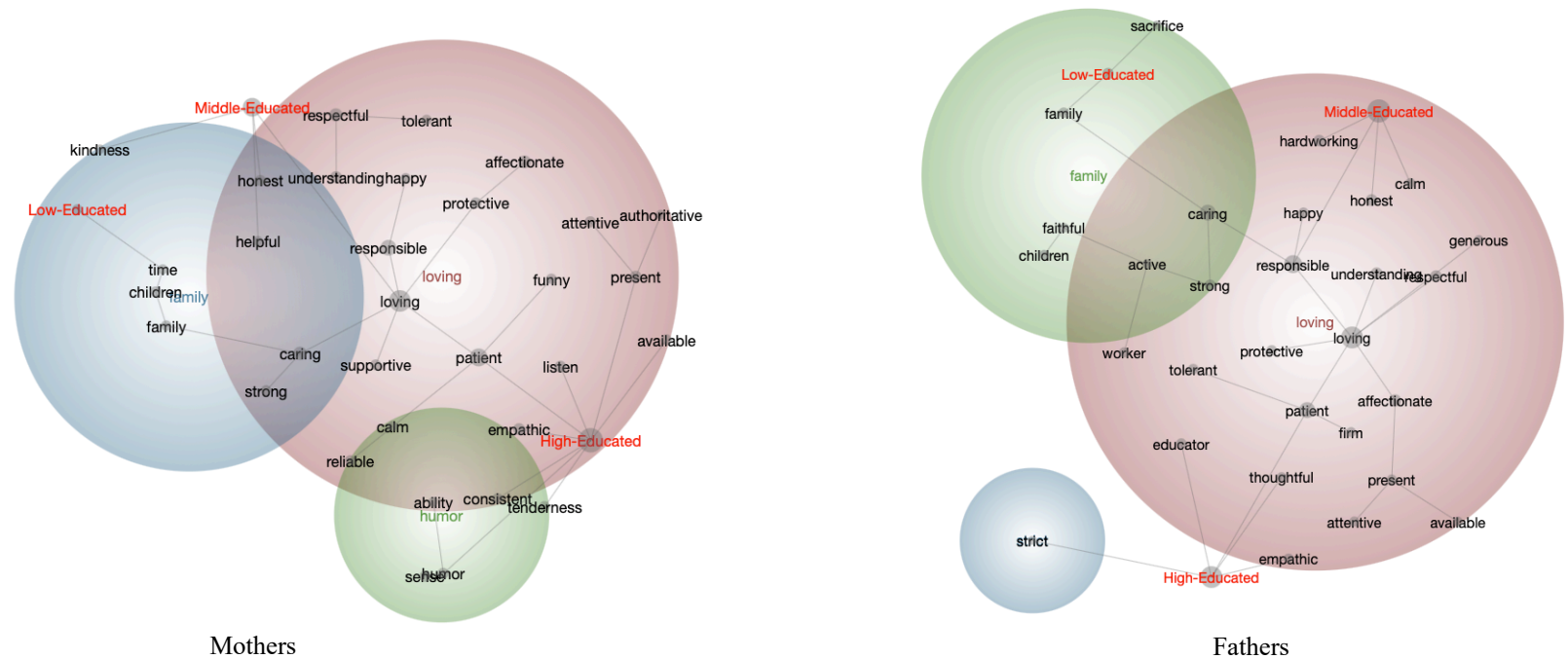
c. Random Group 3



d. Random Group 4



e. Random Group 5



Chapter 7 Parenting with a Smile: Display Rules, Regulatory Effort, and Parental Burnout

Parenting with a Smile: Display Rules, Regulatory Effort, and Parental Burnout

Abstract

Positive parenting prescriptions prevailing in Western countries encourage parents to regulate their emotions and, more specifically, to show more positive emotion to their children and control negative emotions while parenting. The beneficial effect of this practice on child development has been much documented, but its possible costs for parents have been much less researched. The current study borrowed the well-known emotional labor framework from organizational psychology to examine this issue. We sought to answer five questions in particular: (1) Do parents perceive display rules? (i.e., do they feel pressured to up-regulate positive emotions and down-regulate negative emotions while parenting?) (2) Do parents make regulatory efforts to comply with these rules? (3) Is this costly? (4) Is it possible that these regulatory efforts are associated with higher risk of parental burnout? (5) Are there strategies that render this effort less costly? We investigated these questions in a sample of 347 parents. The results revealed that parents perceive emotional display rules, which were associated with more regulatory efforts and then a higher vulnerability to parental burnout. How parents meet display rules also matters, in that regulating emotions superficially (i.e., surface acting) is more detrimental than regulating genuinely (i.e., deep acting). Overall, these results support the translation of the emotional labor framework to the parenting context, which helps us understand how external pressures on parents may increase parental burnout.

Reference

Lin, G.-X., Hansotte, L., Szczygieł, D., Meeussen, L., Roskam, I., & Mikolajczak, M. (2021). Parenting with a smile: Display rules, regulatory effort, and parental burnout. *Journal of Social and Personal Relationships*, 38(9), 2701–2721. <https://doi.org/10.1177/02654075211019124>

1. Introduction

The goal of this paper is to adapt a theoretical framework borrowed from affective science in organizational psychology, i.e., “emotional labor,” to shed light on a pressing yet under-researched question in parenting psychology: what are the down sides of positive parenting for parents (if any)? Positive parenting consists of nurturing, valuing, empowering and structuring children in a non-violent way. Positive parents are expected to express positive emotions to their children and manage negative emotions (Y. Chen et al., 2019; Le et al., 2019; Le & Impett, 2019). While the benefits of positive parenting for children have been widely documented, its possible costs for parents have been much less researched. Focusing on a core characteristic of positive parenting (i.e., emotional management), this study aimed to understand how costly it is for parents to manage their emotions to comply with positive parenting prescriptions.

The borrowing of the emotional labor framework to investigate this question is grounded in the fact that this framework has elegantly theorized the cost of emotion management at work, and that parenthood has a number of features that make it increasingly comparable to a job: (1) a number of external prescriptions as to how the parental role should be performed: what parents should do (e.g., be “positive” parents who provide their children with an emotionally secure environment, give them five helpings of fruit and vegetables a day, etc.), and what they should not do (e.g., use corporal or disproportionate punishment, put their very young children in front of screens, etc.), (2) expectations in terms of results (the child should be physically healthy, emotionally secure and up to date with schoolwork, behave politely, etc.), and (3) monitoring/control by the state, which checks whether parents are doing their job properly (via child health centers, school medical check-ups, etc.) and reserves the right to punish them and withdraw custody of the child as a last resort. Parents can no longer carry out their role as they see fit or just use “common sense” as they usually did before. Instead, they need to continuously adjust their behavior in accordance with society’s prescriptions (Meeussen & Van Laar, 2018).

The critical changes in parenting in recent decades (see Bornstein, 2015; Faircloth, 2014; Hoghughi, 2004; Verhellen, 2000), and the increase in both parental pressure and parental engagement that have ensued, have coincided with the appearance of the notion of “parental burnout.” Just as employees facing too much stress can end up in job burnout (see Maslach et al., 2001 for a review), parents under too much parental stress can end up in parental burnout (Mikolajczak et al., 2019; Roskam et al., 2017). And, just as job burnout has severe consequences for the employee, their customers, and the company more generally, parental burnout also has severe consequences for the parent, their children, and the family system more broadly (Mikolajczak, Brianda, et al., 2018a; Mikolajczak et al., 2019). Preventing and treating parental burnout requires a thorough understanding of the condition and of its determinants at the macro-, meso- and micro-levels and, most importantly, of the interplay between them. The current paper aims to contribute to this work and to shed light on the conditions under which external pressures on parents increase parental burnout.

It is on this basis that we decided to adapt the emotional labor framework to parenting:

we aimed to study the costs of parents' efforts to manage their emotions in order to comply with positive parenting prescriptions. This does not amount to reducing parenting to a job—it is obviously so much more than that—but the parallels between work and parenting that we mentioned earlier in the introduction legitimize the temporary adoption of this organizational framework to examine whether it can facilitate the understanding of the effects of certain external pressures on parents. Importantly, this does not change the definition of emotional labor (which remains emotion management “in exchange for wages”; reason for which we have not used the term emotional labor in the title of the current paper), nor does it reduce parental emotion regulation to the two flagship emotional labor strategies (surface and deep acting).

1.1 Emotional Pressures on Parents

Society's views of children have changed drastically over the centuries, leading to a rapidly-growing expansion of the role and duties of parents. In the mid-19th century, various Western countries started to perceive children not only as unique and important, but also as fragile beings requiring extra efforts to protect (Hoghughi, 2004). This ideology became dominant after the Second World War, and was further fueled by both the birth of the welfare state and John Bowlby's views regarding the importance of the mother-child relationship (Bretherton, 1992). The concept of “child protection” has thus gradually been replaced by high-quality child-raising, with a supportive and warm family to ensure children's harmonious development and fulfill children's need for love and understanding (Hoghughi, 2004; Verhellen, 2000). This development has drastically affected the parental role, which now takes the form of a set of rules, normative recommendations, and prescriptions: these state that parents must not only take care of children's physical survival by ensuring proper nutrition, sleep, exercise and so on, but also bolster their subjective well-being, including their happiness, self-efficacy, and even purpose in life (Bornstein, 2015).

Emotional aspects of parenting are central to these prescriptions (for a recent study, see Carreras et al., 2019): Parents must create a context of affective and relational safety for their children in order to make sure their children feel secure, loved and encouraged, and are allowed to develop and reach their full potential. Parents are therefore increasingly encouraged (or even required) to regulate their emotions during their parent-child interactions. As summarized in Dix's (1991) review and discussed in Le and Impett's (2016) recent empirical research, on the one hand, parents should refrain from too many negative emotions, like anxiety (which could make their relationship with their child insecure; e.g., Manassis et al., 1994) or anger; on the other hand, parents should also express positive emotions, like warmth, affection, happiness, gratitude, pride or wonder, to sustain the child's development and emotional security (e.g., Bai et al., 2016). This ideology is explicitly expressed in government policies (e.g., the Council of Europe's policy on positive parenting; Rodrigo, 2010; positive parenting tips provided by the National Center on Birth Defects and Developmental Disabilities (NCBDD), n.d.), which urge parents to be warm and supportive and to control their negative emotions, and is implicitly reinforced by social norms that

condemn parents who are deemed to be inattentive, cold or too strict.

All these parenting strategies are embedded in the ideology of “positive parenting” (e.g., Sanders & Mazzucchelli, 2017). The last few decades have seen the attachment of growing importance to research investigating the beneficial effects of positive parenting on child development (see Chen et al., 2019, for a review). In contrast, there has been relatively little research into the consequences of this set of parenting prescriptions for parents. How costly are these prescriptions for parents themselves? Drawing on the work of Le and Impett (2016) and Karnilowicz, Waters, and Mendes (2019) on the cost of emotion regulation for parents, this paper aims to provide a theoretical lens for investigating this question further. As explained earlier, we borrowed the tenets of the *emotional labor* framework (e.g., Grandey, 2013) in order to examine whether emotional display rules exist in parenting (whether parents perceive this prescription to down-regulate negative emotions and/or up-regulate positive emotions in the presence of their children), and if so, whether and when these display rules contribute to exhausting parents and increase the risk of parental burnout, as they do in the work context.

1.2 The Notion of Emotional Labor

The concept of emotional labor (EL) was proposed by Hochschild (1983) to designate the process of managing feelings and their expressions to fulfill the emotional requirements of a job (i.e., to meet the emotional display rules or, in Hochschild’s terms, the “feeling rules” of the workplace). Emotional display rules incorporate information about “which” and “how” emotions should be managed “where” and “when.”

According to Hochschild (1983), EL is said to occur when: (1) employees are in *direct* contact with customers (“voice to voice” or “face to face”), (2) the organization explicitly or implicitly *specifies* which emotions must/can be expressed and how they have to be expressed (e.g., via training, organizational culture, or precepts such as “Put a smile in your voice”), and (3) the organization directly or indirectly *controls* its employees’ emotional expressions. Such emotional display rules create a pressure towards emotion management (i.e., stimulate a regulatory effort) whenever employees’ inner and required emotions do not match, i.e., whenever employees find themselves in a situation of emotional dissonance.

According to the tenets of the EL framework, employees perform this regulatory effort mainly using two strategies: surface acting and deep acting. The former refers to bringing the outward expression of emotion in line with the display rules (e.g., suppressing anger and/or putting on a fake smile); the latter consists of attempts to deeply modify internal feelings to align felt and required emotions (e.g., reappraising an event and finding a way to feel and express positive emotion sincerely). These original definitions imply that these two strategies of EL are independent of one another (Mikolajczak, Menil, et al., 2007), but most empirical research has shown that they may positively intercorrelate (e.g., Grandey, 2003) and may be enacted in tandem (Gabriel et al., 2015).

1.3 EL and Job Burnout

Hochschild (1983, p. 90) borrowed the idea of “alienation” from Karl Marx to propose that emotional display rules put employees at risk of inauthenticity and emotional dissonance, which leads to self-estrangement, distress, and even job burnout if EL is too frequent (see Wharton, 2009). This proposition has been largely supported. A recent meta-analysis showed that emotional display rules predicted the frequency of both surface and deep acting (Kammeyer-Mueller et al., 2013), which further predicted employees’ (lower) well-being and even burnout (e.g., exhaustion, one of the core symptoms in burnout; Hülshager & Schewe, 2011). Incorporating these concepts in the same research, Goldberg and Grandey (2007) simulated an incoming call center and manipulated the different levels of display rules (with or without explicit rules). Their results confirmed the theoretical mechanism of EL, indicating that emotional display rules predict exhaustion through the mediation pathway of EL acting.

However, the two means of EL do not seem to have equivalent consequences. While most studies on EL reveal that surface acting reliably and consistently predicts job burnout (Grandey & Sayre, 2019), the effect of deep acting is not as consistent across studies. Although some studies have shown a damaging effect of deep acting (though still less harmful than surface acting; e.g., Mikolajczak et al., 2007), most studies have found that it was neither positively nor negatively related to burnout (e.g., Brotheridge & Lee, 2002; Hülshager & Schewe, 2011).

The concept of “regulatory effort” could explain the different consequences of surface and deep acting. Although surface and deep acting are both effortful, the amount of regulatory effort they require differs (e.g., Grandey, 2003), which is congruent with previous findings in the emotion regulation field showing that suppression is less efficient at managing emotions than reappraisal, because of the extra need for sustained regulatory effort over time (e.g., Goldin et al., 2008; Gross, 1998; McRae, 2016; J. M. Richards & Gross, 1999, 2000). If individuals depend more on surface acting to meet organizations’ display rules, their effort and cognitive resources are more heavily drained in order to monitor their emotional expression continually and express correct emotions. Continuous resource-draining in the end causes strain and burnout (Brotheridge & Grandey, 2002). In contrast, although deep acting also requires cognitive resources to manage emotions, these efforts are needed only at the onset of emotion; it explains a weaker predictive association of deep acting with job burnout. In a nutshell, it can be assumed that surface acting is more maladaptive than deep acting due to its ineffectiveness and repeated nature (see Hülshager & Schewe, 2011).

In sum, the EL paradigm offers a compelling framework to explain the mechanism by which some desirable outcomes, i.e., more positive and less negative emotions, can be costly (Grandey et al., 2013) and even lead to exhaustion. Initially, this paradigm aimed to understand the new form of labor in the service sector (Hochschild, 1983). It has subsequently generated hundreds of studies about the cost of emotion management in the work setting. A smaller line of research has drawn on Hochschild’s work to investigate the cost of emotion management in the family setting (e.g., Schrodtt, 2020; Schrodtt & O’Mara, 2019; Wharton &

Erickson, 1993, 1995). Parents' regulatory efforts in the positive parenting era have not been much investigated (see Le and Impett's, 2016 for a notable exception) and yet, these regulatory efforts are probably the closest to EL framework in that the culture of "positive parenting" puts an external pressure on parents' emotion regulation.

1.4 Using the EL Framework to Understand How Emotional Pressures on Parents are Associated with Parental Burnout

As described earlier, modern parents are now increasingly expected to regulate their emotions to be deemed "good," "positive," and "secure" parents (also see Ryan et al., 2006, p.212), at least in Western countries (Roskam, Aguiar, et al., 2021). As elegantly shown in Le and Impett's (2016) experimental and daily experience studies, parents do attempt to regulate their emotional expressions during caregiving. Making efforts to experience emotions that are incongruent with the genuine emotions (i.e., EL) dampen their perceived authenticity and lowers their parental emotional well-being. This finding, echoing with the premise of EL (Hochschild, 1983), leads us to believe that the EL paradigm may be an excellent lens to study the cost of parents' emotion regulation in the "positive parenting" culture and shed light on the role played by these regulatory efforts in increasing the risk of parental exhaustion and burnout.

Parental burnout is usually described as encompassing four core symptoms: intense exhaustion resulting from one's parental role, perceived saturation with one's parental role, emotional distancing from one's child(ren), and perceived contrast between previous and current parental self (Roskam et al., 2018). These symptoms are theorized to develop because of a chronic imbalance between parenting-related demands and available resources (Mikolajczak & Roskam, 2018). Among multiple factors, cultural factors have recently been shown to weigh heavily, with Western parents being five times more vulnerable to parental burnout than parents in the rest of the world (Roskam, Aguiar, et al., 2021). Based on this result and knowing that "positive parenting" is currently particularly prevalent in Western countries, it is reasonable to expect that one of the factors depleting parents' resources is their perception of emotional display rules in parenting and the EL strategies they utilize to comply with these rules.

As positive parenting urges parents to both express warmth and other supportive emotions and control negative emotions, the present study used the EL framework to examine five questions: (1) Do parents perceive emotional display rules in parenting? (2) How effortful is it for parents to comply with these emotional display rules? (3) Do parents comply with these emotional display rules by using surface and/or deep acting? (4) Does this emotional management require regulatory efforts? (5) Is it possible that these regulatory efforts are associated with a higher risk of parental burnout? Following previous research in organization literature regarding EL, we proposed that perceived emotional display rules will be associated with more frequent surface acting and deep acting, which will be then associated with more regulatory efforts and then a higher vulnerability to parental burnout (see Figure 7.1). A number of hypotheses were therefore tested in this study:

Hypothesis 1: Parents will perceive emotional display rules in parenting.

Hypothesis 1a: Parents will perceive that they are required to show positive emotions in parenting.

Hypothesis 1b: Parents will perceive that they are required to control negative emotions in parenting.

Hypothesis 2: It will require effort from parents to comply with emotional display rules.

Hypothesis 2a: It will require effort from parents to show positive emotions in parenting.

Hypothesis 2b: It will require effort from parents to control negative emotions in parenting.

Hypothesis 3: Parents will comply with emotional display rules by using surface and deep acting.

Hypothesis 3a: Perceived display rules will positively correlate with surface acting.

Hypothesis 3b: Perceived display rules will positively correlate with deep acting.

Hypothesis 3c: Surface acting will positively correlate with deep acting.

Hypothesis 4: Emotion management to meet the emotional display rules will be effortful.

Hypothesis 4a: Surface acting will be positively associated with regulatory effort.

Hypothesis 4b: Deep acting will be positively associated with regulatory effort.

Hypothesis 4c: The association of deep acting with regulatory effort will be lower than the association of surface acting with regulatory effort.

Hypothesis 5: Regulatory effort involved in complying with emotional display rules will be related to higher vulnerability to parental burnout.

Hypothesis 5a: Regulatory effort will be positively associated with parental burnout.

Hypothesis 5b: Both surface acting and deep acting will be positively associated with parental burnout via regulatory effort.

Hypothesis 5c: Emotional display rules will be positively associated with parental burnout via the indirect path from surface/deep acting to regulatory effort.

Hypothesis 5d: The indirect effect of deep acting on parental burnout via regulatory effort will be smaller than the indirect effect of surface acting on parental burnout via regulatory effort.

2. Method

2.1 Participants and Procedure

The research program was approved by the Institutional Review Board at the university.

The data collection had started and ended in 2019. The study was posted online on Qualtrics. Parents were informed about the survey through social networks, websites, schools, pediatricians, or word of mouth. They were eligible to participate only if they had (at least) one child still living at home. Of the 379 people who responded to the survey, 32 provided incomplete data. As an independent-samples t-test revealed no significant mean difference of the main variables used in the analysis between these missing participants and the other participants, missing participants were all listwise deleted. The final sample consisted of 347 parents ($M_{\text{age}} = 38.75$ years, $SD_{\text{age}} = 9.77$ years; 30 fathers and 317 mothers). The majority came from France (48.4%) and Belgium (42.9%), a minority from Luxemburg (6.3%) and other European countries (1.5%), and the rest from non-European countries (0.9%). 53.9% worked full-time, 10.7% worked half-time, 18.2% worked part-time, and 17.2% did not work for various reasons (e.g., homemaker). 50.7% were married, 38.0% were legally cohabiting, and 11.2 % were single parents. Overall, the participants had from 1 to 7 children. Their oldest children ranged in age from 0 to 42 years ($M_{\text{age}} = 10.58$ years; $SD_{\text{age}} = 9.75$ years), 20.5% were over 18 years-old, and 50.7% were boys. However, the eldest child is not always the one who is still living at home. Among the participants, 0.6% were educated to primary level, 13.5% were educated to secondary level, 76.4% had a bachelor's or a master's degree, and 9.5% had a Ph.D. or an MBA degree. Income was distributed as follows: 24.2% had a net monthly household income lower than €2500, 39.5% between €2500 and €4000, 17.6% between €4000 and €5500, and 18.8% higher than €5500.

2.2 Measures

2.2.1 Sociodemographic Factors

Participants answered questions regarding their age, gender, marital status, net monthly household income, level of education, work regime, number of children, and the gender and age of each child.

2.2.2 Parental Burnout

Participants completed the Parental Burnout Assessment (PBA) (Roskam et al., 2018), which is currently the gold-standard measure of parental burnout. It includes 23 items rated on a 7-point frequency scale (from *never* (0), *a few times a year or less* (1), *once a month or less* (2), *a few times a month* (3), *once a week* (4), *a few times a week* (5), *every day* (6)). The PBA is organized into four subscales: Exhaustion in one's parental role (9 items; e.g., I feel completely run down by my role as a parent), Emotional distancing from one's child(ren) (3 items; e.g., I do what I'm supposed to do for my child(ren), but nothing more), Feelings of being fed up with one's parental role (5 items; e.g., I can't stand my role as father/mother any more), and Contrast with previous parental self (6 items; e.g., I don't think I'm the good father/mother that I used to be to my child(ren)). These four subscales are summed to form a global score. The Cronbach's α s in the current sample were .97 for the global scale and .80-.97 for the four subscales.

2.2.3 Perceived Emotional Display Rules in Parenting

A questionnaire to measure emotional display rules was created for the purpose of the present study based on a pilot survey run on another sample of parents ($N = 166$). This pilot survey included both open-ended and close-ended question sections. First, open-ended questions asked about which emotions parents think they need to show and which emotions they think they needed to control in front of their children. Most parents in the pilot study reported what they needed to show in front of their children were positive emotions (80% of the parents) and that what they needed to control were negative emotions (78% of the parents). This made it eligible to restrict the formal questionnaire to the assessment of “showing positive emotions” and “controlling negative emotions.” Second, we provided various positive emotions and negative emotions in close-ended questions asking parents which positive emotions they need to show and which negative emotions they needed to control in front of their children. The most-nominated emotions were then extracted to constitute the scale items. This formal questionnaire, Perceived Emotional Display Rules in Parenting Scale, assessed emotional display rules concerning both showing positive emotions (9 emotion items including “love,” “joy,” “happy,” “serene,” “proud,” “compassionate,” “attentive,” “enthusiastic,” and “satisfied”; e.g., “A parent must be loving towards their child”) and controlling negative emotions (10 emotions items including “stress,” “irritation,” “anxiety,” “sadness,” “anger,” “fear,” “hopelessness,” “distress,” “discouragement,” and “rage”; e.g., “A parent must control their stress in the presence of their child”). Items were rated on a 5-point Likert scale (*strongly disagree* (0), *disagree* (1), *neither agree nor disagree* (2), *agree* (3), *strongly agree* (4)). The global score was obtained by summing up all items. The Cronbach’s α of the global score in the current sample was .90 (.85 for positive emotions and .89 for negative emotions).

2.2.4 Regulatory Effort Required to Comply with Perceived Display Rules in Parenting

The items from the Perceived Emotional Display Rules in Parenting Scale were reframed to assess the perceived amount of effort it took to regulate these emotions to align with the emotional display rules. This questionnaire measured the regulatory effort of both *showing positive* emotions (9 emotion items; e.g., How much effort does it require from me to show my love towards my child?) and *controlling negative* emotions (10 emotion items; e.g., How much effort does it require from me to control my stress in the presence of my child?) on a 6-point Likert scale (*not applicable* (0), *no effort at all* (1), *little effort* (2), *average effort* (3), *lots of effort* (4), *huge effort* (5)). A global score was obtained by summing up all items. The Cronbach’s α in the current sample was .92 for the global scale (.86 for positive emotions and .90 for negative emotions).

2.2.5 Emotional Labor

Parents’ surface and deep acting were measured using an adaptation of the Emotional Labour Scale (Brotheridge & Lee, 1998; Brotheridge & Grandey, 2002) to parenting. This questionnaire included six items rated on a 5-point frequency scale (*never* (1), *rarely* (2), *sometimes* (3), *often* (4), *always* (5)), organized into two subscales: surface acting (SA; 3 items, e.g., “In the presence of my child, I try not to express my true feelings”), referring to

hiding and faking expressions of emotion, and deep acting (DA; 3 items, e.g., “In the presence of my child, I try to really feel the emotions I think it is necessary to express as a parent”), referring to modifying feelings to comply with display rules in parenthood. The Cronbach’s α s in the current sample were .73 for SA and .93 for DA.

2.3 Analytic Strategy

First of all, hypothesis 1 was tested with one-sample t-tests conducted with IBM SPSS 25.0. Specifically, we compared the mean of the average score (the sum of all items divided by the number of items) of perceived emotional display rule with the scale value that represented no perceived emotional display rule (scale value = 0 [*strongly disagree*] and scale value 2 [*neither agree nor disagree*]). In a similar vein, for testing hypothesis 2, we also compared the mean of the average score of regulatory effort with the scale value = 1 (*no effort at all*).

Next, hypotheses 3-5 were examined via correlations and via path analysis conducted with STATA 16.0. The path analysis model was run with maximum likelihood estimation. Although this estimation is relatively robust to deviations from multivariate normality, standard errors and model-fitting indices could still be biased. Therefore, the Satorra-Bentler correction was used to adjust all the goodness-of-fit statistics involving the likelihood-ratio test comparing the fitted model with the saturated model. For the sake of simplicity, we only present the model that represents parental burnout with its global score. A model where parental burnout is represented by its four subscales is presented in the supplementary material (see Table S7.1 and Figure S7.1); this model yields similar results to those of the model using the global parental burnout score). Evaluation of the fit of the models was carried out on the basis of inferential goodness-of-fit statistics (χ^2 ; Hu & Bentler, 1998) and four other indices: the comparative fit index (CFI), the Tucker-Lewis Index (TLI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). Values close to or greater than .95 are desirable on the CFI and TLI (Hu & Bentler, 1999), while both the RMSEA and SRMR should preferably be lower than .08 (Browne & Cudeck, 1992; Hu & Bentler, 1999).

We evaluated the size of the sample according to the ratio of cases (N) to the number of path analysis model parameters that require statistical estimates (q), which should be over 20:1 (Kline, 2011). Given that we would have 11 parameters in our path analysis, we needed a sample size of at least 220 participants. Recruitment efforts were thus maintained until we reached that sample size. In the end, our efforts led to even larger sample size than needed ($N:q = 347:11$). De-identified data are publicly available via the Open Science Framework and can be accessed at https://osf.io/sauqh/?view_only=4386cbd4ed9d41b0ba91be2eda407bac.

3. Results

3.1 Parents Perceive Emotional Display Rules in Parenting

Descriptive statistics and correlations among study variables are shown in Table 7.1. Means and standard deviations of each item of the scale “Perceived Emotional Display Rules in Parenting” are shown in Table 7.2 (left columns). As shown in this table, on average, parents agreed on the existence of emotional display rules in parenting (means of all items exceeded score value = 2, “*neither agree nor disagree*”). Mean comparison with scale value 0 and with scale value 2 also supported the existence of emotional display rules in parenting: the average score of global emotional display rules of parenting ($M = 2.98$, $SD = 0.47$) was significantly higher ($t(346) = 118.33$, $p = .000$, $d = 6.34$, 95% CI of mean difference [2.93, 3.03]) than the scale value = 0 (*strongly disagree*) and significantly higher ($t(346) = 38.86$, $p = .000$, $d = 2.09$, 95% CI of mean difference [0.93, 1.03]) than the scale value = 2 (*neither agree nor disagree*). The same was true for the subscale “showing positive emotions” (mean comparison with scale value = 0: $M = 3.06$, $SD = 0.52$; $t(346) = 109.49$, $p = .000$, $d = 5.88$, 95% CI of mean difference [3.00, 3.11]; mean comparison with scale value = 2: $t(346) = 37.82$, $p = .000$, $d = 2.04$, 95% CI of mean difference [1.00, 1.11]) and for the subscale “controlling negative emotions” (mean comparison with scale value = 0: $M = 2.91$, $SD = 0.57$; $t(346) = 94.56$, $p = .000$, $d = 5.11$, 95% CI of mean difference [2.85, 2.97]; mean comparison with scale value = 2: $t(346) = 29.53$, $p = .000$, $d = 1.59$, 95% CI of mean difference [0.85, 0.97]). Hypotheses 1a and 1b were thus supported.

3.2 It Requires Effort from Parents to Comply with Emotional Display Rules

As shown in Table 7.2 (right columns), parents indicated that they made efforts to comply with emotional display rules in parenting (means of all items exceeded score value = 1, “*No effort at all*”). Comparison of mean regulatory effort with scale value = 1 validated this observation: parents’ average amount of effort for their emotion regulation in parenting ($M = 2.01$, $SD = 0.72$) was significantly higher than 1 ($t(346) = 25.98$, $p < .001$, $d = 1.40$, 95% CI of the difference [0.93, 1.09]). The same was true for the subscales “showing positive emotions” ($M = 1.70$, $SD = 0.66$; $t(346) = 19.78$, $p < .001$, $d = 2.03$, 95% CI of mean difference [0.63, 0.77]) and “controlling negative emotions” ($M = 2.29$, $SD = 0.93$; $t(346) = 25.96$, $p < .001$, $d = 1.39$, 95% CI of mean difference [1.19, 1.39]). Thus, hypotheses 2a and 2b were also supported.

3.3 Parents Comply with Emotional Display Rules by Using Surface and Deep Acting

As shown in Table 7.1, perceived emotional display rules positively correlated with both surface acting ($r(346) = .25$, $p = .000$) and deep acting ($r(346) = .23$, $p = .000$). Hypotheses 3a and 3b were thus supported. Hypothesis 3c was also supported, in that surface acting positively correlated with deep acting ($r(346) = .28$, $p = .000$).

3.4 Emotion Management to Meet the Emotional Display Rules is Effortful

As shown in Table 7.1, both surface acting ($r(346) = .41, p = .000$) and deep acting ($r(346) = .25, p = .000$) positively correlated with regulatory effort, thereby supporting hypotheses 4a and 4b. Comparison of the correlation coefficients indicated that the effect of deep acting on regulatory effort was lower than the effect of surface acting ($z = 2.36, p = .009$), thereby supporting hypothesis 4c.

3.5 Regulatory Efforts Involved in Complying with Emotional Display Rules is Related to Higher Vulnerability to Parental Burnout

As shown in Table 7.1, regulatory effort positively correlated with parental burnout ($r(346) = .59, p = .000$), thereby supporting hypothesis 5a. Mediation hypotheses 5b to 5d were supported by the path analysis model shown in Figure 7.2 (all coefficients are summarized in Table 7.3): although the chi-square ($\chi^2(4) = 10.40, p = .034$) of our path analysis was significant, the other fit indices suggested that the proposed model had a good fit to the data (CFI = .97, TLI = .93, RMSEA = .07, SRMR = .03). Our proposed model in total explained 9% of parental burnout. Path coefficients were all significant in the proposed direction, and the relation between surface acting and regulatory effort was higher than the relation between deep acting and regulatory effort ($\chi^2(1) = 6.89, p = .009$). The expected relations delineated in hypotheses 3-4 and 5a were thereby all validated. Moreover, the indirect effects of perceived emotional display rules (via surface acting/deep acting and the regulatory effort they involved), surface acting (via regulatory effort), and deep acting (via regulatory effort) on parental burnout were all significant ($ps < .05$). Among them, the standardized indirect effect of surface acting was, as expected, higher than deep acting (difference = 6.61, $SE = 1.88, z = 3.51, p = .000, 95\% \text{ CI } [2.92, 10.30]$).

4. Discussion

Applying the EL framework from organizational psychology to parenting, this paper aimed to improve our understanding of the consequences of some tenets of positive parenting (e.g., Sanders & Mazzucchelli, 2017) for Western parents. The path analysis model, which integrated all proposed paths in reference to previous organizational literature (e.g., Brotheridge & Grandey, 2002; Brotheridge & Lee, 2002; Goldberg & Grandey, 2007; Grandey, 2003), supported the relevance of borrowing the EL framework to uncover some of the mechanisms by which current “parenting culture” (E. Lee et al., 2014) puts parents under pressure. This model revealed that parents perceive emotional display rules (i.e., the need to express positive emotions and control negative emotions in front of their children), which is associated with a higher regulatory effort and also higher vulnerability to parental burnout. Moreover, these results hold even when considering demographic variables as control variables (see the detailed discussion in the current article's supplementary material).

This paper contributes to both parenting and EL literature. As far as parenting is

concerned, it suggests that although positive parenting has very beneficial effects for children (Y. Chen et al., 2019), it comes at a cost for parents (Le & Impett, 2016). The current study goes a step further by examining the cost in terms of parental burnout. Given the detrimental effect of parental burnout on child development (see Mikolajczak et al., 2019), it may be ironic that positive parenting might ultimately negatively affect those it seeks to protect. The present study constitutes a call for researchers in parenting to find ways of reconciling the interests of parents with the well-being of children. Moreover, considering the prolonged/increased parent-child interaction due to the COVID-19 pandemic lockdown, it may be plausible that parents' suffering (e.g., from complying with emotional display rules) may have worsened (e.g., increasing the risk of burnout). Actually, the urgency for future studies to explore it has been addressed by leading scholars in the science community (Gruber et al., 2020). The current study provides a framework on which future research can base.

Through adapting the EL framework to parenting, we provided a model tying together the antecedents of emotion regulation (i.e., emotional display rules), emotion regulation (i.e., EL strategies), and consequences (i.e., parental burnout) in the parenting context. The valid translation of the framework implies that parental emotional experiences include not only felt and expressed but also required emotions. To the best of our knowledge, since the seminal call of Dix (1991) to examine the role of parental affect in detail, there has been rare/no empirical research in the field about required emotions (i.e., emotional display rules) in the parenting domain. As we described earlier, this underdevelopment may be due to the dramatic changes in parenting—comparing to previous generations, parents nowadays need to continuously adjust their behavior in accordance with society's prescriptions. Complying with emotional display rule may have become a new crux norm of the current parenting culture, and our study is the first to demonstrate its detrimental consequence in terms of parental burnout.

At last, although this research was not intended to contribute to the EL literature, it does in some ways. First, it confirms the potential of the EL framework, which has already given rise to thousands of studies in organizational psychology, to be translated to the parenting context and give rise to research that should provide new directions to prevent parental burnout. Second, as reported in Table 7.2, parents in average report only little to average effort required to show or control each emotion. This may imply that even a small amount of effort can be as costly as to predict parental burnout. This finding of specificity (i.e., the possibility that even a small amount of effort felt can be very costly for parents) supports the relevance of examining emotion regulation/EL in the parenting context. Lastly, given the emerging evidence of the spillover of EL across different domains (e.g., Sanz-Vergel et al., 2012), future research could examine the association and even interaction between EL at work and regulatory efforts to comply with display rules in parenting: employees who are also well-intentioned parents may bear the highest risk of adverse consequences.

4.1 Limitation and Future Directions

In spite of its strengths, this study suffers from several limitations that need to be acknowledged. The first limitation lies in the sample: most respondents were mothers. It is therefore unclear whether the EL framework is equally relevant to fathers. In particular, it is unclear if fathers equally perceive display rules and, if so, whether they also constitute a vulnerability factor vis-à-vis parental burnout for them. Considering the previous literature on gender difference in emotional expression/regulation (e.g., Chaplin, 2015), this limitation surely limits the generalizability of the results to men. Future studies would benefit from going deeper into this issue. The second limitation lies in the design, which is both cross-sectional and self-reported, resulting in higher shared variance. This being said, since our research result is echoing with Le and Impett's (2016), which relied on different research methods (i.e., experimental study and daily experience study), our result cannot be merely attributed to shared method variance.

Despite the above-mentioned limitations, our research opens exciting new directions in parenting and emotion psychology. The most obvious future direction would consist of probing alternative explanations for our research findings. To mention a few, first, there might be spillover of EL across contexts, i.e., parents may adopt maladaptive EL strategies (e.g., surface acting) more if they also prefer to adopt them in the organizational context, and vice versa, and thus contributes to one's ill-being (see Liu et al., 2018). Second, it is also possible that if parents are less skillful at general emotion regulation, they might adopt maladaptive EL in specific contexts more (Mikolajczak, Menil, et al., 2007). Third, parents with different dispositions towards emotions may inherently require varying efforts to meet emotional display rules, leading to differential vulnerability to parental burnout (see Dix, 1991). Together, examining the potential confounding variables that account for our findings will prove particularly fruitful and contribute to our understanding of modern parents'/human's emotional experience.

To wrap up, adopting the EL framework—specifically describes how individuals *conform to explicit emotional display rules for required and repeated social interactions*—paves the way (Grandey & Sayre, 2019, p. 132) for researchers to examine whether emotion display rules exist in parenting, whether and how parents meet them, and whether this would predict parental burnout. In our study, this framework explains about 9% of parental burnout's variance. An essential future direction to refine the model would consist in going beyond the two flagship strategies of the EL framework, as already suggested by many EL researchers in the work domain (e.g., Mikolajczak, Tran, et al., 2009), and investigating the costs and benefits of other emotion regulation strategies (e.g., Le & Impett, 2016) that parents may use to comply with emotional display rules. Doing so might boost the explanation power of the model and will surely contribute to a better understanding of parental emotional experience.

Table 7.1*Descriptive Statistics and Correlation Among Study Variables*

Variables	<i>M (SD)</i>	1	2	3	4	5	6	7	8	9	10	11	12
1 Display rule (show positive)	27.50 (4.68)												
2 Display rule (control negative)	29.08 (5.73)	.46**											
3 Display rule	56.58 (8.91)	.82**	.88**										
4 Regulatory effort (show positive)	15.28 (5.92)	.12*	.16**	.16**									
5 Regulatory effort (control negative)	22.93 (9.28)	.11*	.22**	.20**	.63**								
6 Regulatory effort	38.21 (13.77)	.13*	.22**	.21**	.85**	.94**							
7 Surface acting	2.07 (0.68)	.19**	.23**	.25**	.39**	.36**	.41**						
8 Deep acting	2.91 (1.21)	.29**	.12*	.23**	.19**	.25**	.25**	.28**					
9 Exhaustion in parental role	12.51 (12.29)	.11*	.10	.12*	.55**	.48**	.56**	.34**	.13*				

10	Contrast in parental self	5.07 (7.19)	.06	.11 [*]	.10	.56 ^{**}	.49 ^{**}	.57 ^{**}	.32 ^{**}	.16 ^{**}	.80 ^{**}		
11	Feelings of being fed up	4.24 (5.76)	.05	.04	.05	.56 ^{**}	.47 ^{**}	.56 ^{**}	.31 ^{**}	.12 [*]	.89 ^{**}	.81 ^{**}	
12	Emotional distancing	2.33 (3.19)	.02	.02	.02	.52 ^{**}	.37 ^{**}	.47 ^{**}	.28 ^{**}	.07	.70 ^{**}	.68 ^{**}	.78 ^{**}
13	Global parental burnout	24.14 (26.37)	.08	.09	.10	.59 ^{**}	.50 ^{**}	.59 ^{**}	.35 ^{**}	.14 ^{**}	.96 ^{**}	.91 ^{**}	.95 ^{**} .80 ^{**}

^{*} $p \leq .05$. ^{**} $p \leq .01$.

Table 7.2

Mean and Standard Deviation of Each Item of Perceived Emotional Display Rule and Regulatory Effort

Scales/Items	Emotional Display Rule		Regulatory Effort	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Show positive emotions (global) ^a	3.06	0.52	1.70	0.66
Love	3.63	0.64	1.27	0.70
Joy	2.51	0.87	1.84	1.00
Happy	2.58	0.86	1.76	1.04
Serene	2.97	0.78	2.29	1.11
Proud	3.34	0.75	1.28	0.73
Compassionate	3.28	0.71	1.47	0.80
Attentive	3.56	0.57	1.99	1.01
Enthusiastic	2.88	0.81	1.80	1.05
Satisfied	2.77	0.86	1.60	1.03
Control negative emotions (global) ^b	2.91	0.57	2.29	0.93
Stress	3.01	0.67	2.83	1.05
Irritation	3.15	0.70	3.04	1.12
Anxiety	3.03	0.71	2.56	1.26
Sadness	2.28	1.01	2.23	1.29
Anger	3.04	0.85	2.63	1.26
Fear	2.68	0.88	2.09	1.18
Hopelessness	3.00	0.79	1.71	1.46
Distress	2.75	0.82	1.80	1.31
Discouragement	2.76	0.85	2.07	1.29
Rage	3.40	0.79	1.98	1.51

^a Average score of the subscale “show positive emotions” (the summed score of all items divided by the number of items).

^b Average score of the subscale “control negative emotions” (the summed score of all items divided by the number of items).

Table 7.3

Coefficients and Indirect Effect of Path Analysis Model of Associations Between Emotional Display Rule, Surface/Deep Acting, Regulatory Effort, and Parental Burnout

Relations	Std. estimate	Unstd. estimate	SE ^a	z	p	95% CI	
						LL	UL
Path coefficient							
Display rule → Surface acting	.25	0.02	0.00	5.07	.000	0.01	0.03
Display rule → Deep acting	.23	0.03	0.01	4.13	.000	0.02	0.05
Surface acting → Regulatory effort	.37	7.48	1.00	7.45	.000	5.51	9.44
Deep acting → Regulatory effort	.15	1.66	0.58	2.87	.004	0.53	2.80
Regulatory effort → Global parental burnout	.59	1.14	0.13	8.82	.000	0.88	1.39
Covariance							
Error (Surface acting) ↔ Error (Deep acting)	.24	0.18	0.04	4.16	.000	0.10	0.27
Indirect effect ^b							
Surface acting → Global parental burnout	.22	8.50	1.68	5.05	.000	5.20	11.80
Deep acting → Global parental burnout	.09	1.89	0.65	2.91	.004	0.62	3.16
Display Rule → Global parental burnout	.07	0.22	0.06	3.98	.000	0.11	0.33

Note. Std. estimate = standardized estimate; Unstd. estimate = unstandardized estimate; CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

^a *SE* was adjusted by Satorra-Bentler adjustments.

^b Indirect effect testing was calculated by Satorra-Bentler adjustments.

Figure 7.1

Hypothesized Model of Associations Between Emotional Display Rule, Surface/Deep Acting, Regulatory Effort, and Parental Burnout

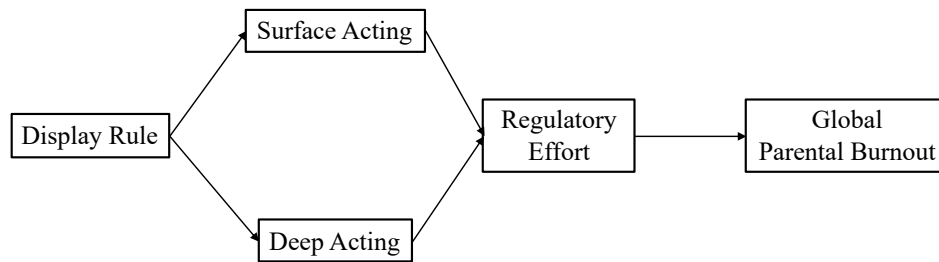
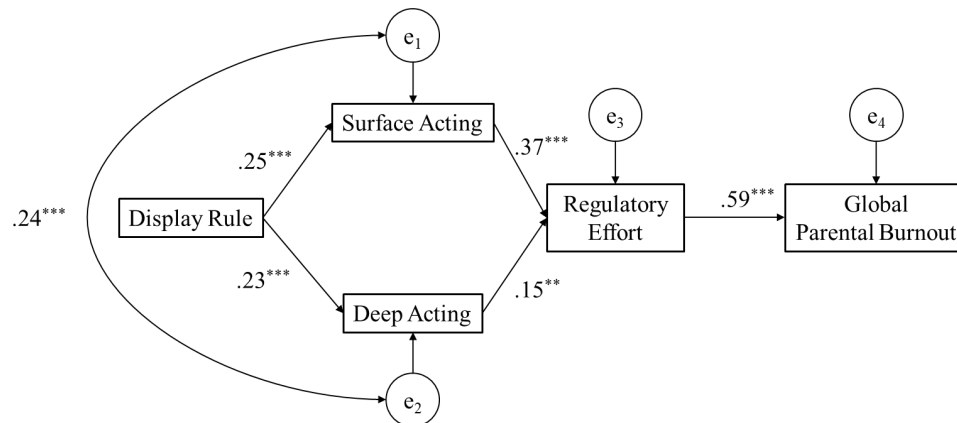


Figure 7.2

Path Analysis Model of Associations Between Emotional Display Rule, Surface/Deep Acting, Regulatory Effort, and Parental Burnout



Note. Coefficients presented are standardized linear regression coefficients.

$^{**}p < .01$. $^{***}p < .001$.

5. Supplementary Material

First, a model where parental burnout is represented by its four subscales is presented in Table S7.1 and Figure S7.1; this model yields similar results to those of the model using the global parental burnout score). Second, we made supplementary analysis to explore the potential effect of demographic characteristics.

5.1 The Association of Parental Demographic Characteristics with Emotional Display Rules in Parenting

To begin, as regard emotional display rules in parenting, we performed bivariate correlation analyses between emotional display rules and all parental demographic characteristics. Results revealed that emotional display rules only significantly related to “net monthly household income” ($r(346) = -.119, p = .026$), and “highest education degree” ($r(346) = -.180, p = .001$), and the “sex of the elder children” ($r(346) = -.158, p = .003$). As parents have less income, they have higher sensibility or accessibility to these emotional display rules. The association may result from other confounding variables related to income (i.e., the intersection of various variables, e.g., ethnicity, personality, and so on). Without any other available measurement/data to examine the possibilities, we chose not to discuss this issue to avoid misleading readers.

Since highest education degree and the sex of the elder children are non-continuous variables, we thus further performed comparison tests between levels of the variable to reveal the nuance of their effect on emotional display rules. Although the omnibus ANOVA test revealed a significant difference of perceived emotional display rules among levels of education ($F(5, 341) = 2.62, p = .024$, Cohen’s $f = 0.15$, a small to medium effect), the Bonferroni post hoc multiple comparison tests revealed no significant differences when comparing levels of highest education degree. We therefore did not make any further discussion about it. Future research is required to replicate this finding and to explore the potential mechanism between formal education and emotional display rules.

The independent-sample t-test for the sex of the elder children demonstrated parents with girls will perceive slightly stronger emotional display rules ($t(345) = 2.98, p = .003$, 95% CI of mean difference [0.96, 4.68]), and its effect size is small to medium ($d = 0.32$). In previous literature, it has been shown that parents discuss emotion more and use a greater variety of emotional words with their daughters than with their sons (see Brown & Tam, 2019 for a review). Supplementary to this research line, our finding further suggests that parents themselves may even perceive a stronger need to express more positive emotions and less negative emotions while interacting with daughters. One possible reason for it may be the parental belief that girls are more sensitive to emotions (e.g., Lee et al., 2013) that drive parents to hold a stronger need to deliver the right emotions. However, given the number of statistical tests involving demographic variables and the fact that we did not have any specific hypotheses regarding these, future research should be needed to replicate this finding and, if

it replicates, examine the underlying mechanism.

5.2 The Association of Parental Demographic Characteristics with Regulatory Efforts

Second, as regard regulatory effort, we also performed bivariate correlation analyses between regulatory effort and all demographic characteristics. Results revealed that regulatory effort only significantly related to “net monthly household income” ($r(346) = -.140, p = .009$), and the “sex of the parent” ($r(346) = .125, p = .019$). First, again, regarding the association of the net monthly household income with regulatory effort, we suspend our discussion on this issue because we don’t have any further data to validate potential hypotheses.

Second, because the sex of the parent is not continuous variables, we performed independent-sample t-test to reveal the nuance of this variable’s effect on regulatory effort. The result demonstrated mothers put more effort to meet the emotional display rules ($t(345) = 2.35, p = .019$, 95% CI of mean difference [11.28, 1.00]), and its effect size is also small to medium ($d = 0.47$). This result supplements previous studies’ findings. Specifically, a tendency to express emotions more (see Brown & Tam, 2019, p.264) still require efforts—mothers would put more effort to meet the emotional display rule, especially express more positive emotions and control negative emotions in the interaction with children. However, this effect is only small to medium, just as previous findings on the association of gender with emotional expressivity (see Chaplin, 2015). Given the number of statistical tests involving demographic variables and the fact that we did not have any specific hypotheses regarding this, future studies should replicate our findings before we can make any decisive conclusion.

5.3 The Impact of Parental Demographic Characteristics on Associations Between Study Variables

Third and most importantly, to strengthen our analyses, we performed partial correlation analyses (see Table S7.2 in supplementary material) in which all demographic characteristics (including parent’s age, gender, marital status, net monthly household income, level of education, work regime, number of children, and the gender and age of each child) were controlled for the associations between study variables. The findings remain similar. First, perceived emotional display rules positively correlated with both surface acting ($r(336) = .18, p = .001$) and deep acting ($r(336) = .27, p = .000$). Surface acting positively correlated with deep acting ($r(336) = .27, p = .000$). Both surface acting ($r(336) = .42, p = .000$) and deep acting ($r(336) = .24, p = .000$) positively correlated with regulatory effort. Comparison of the correlation coefficients indicated that the effect of deep acting on regulatory effort was lower than the effect of surface acting ($z = 2.69, p = .004$). Besides, as shown in Table S7.1, regulatory effort positively correlated with parental burnout ($r(336) = .61, p = .000$).

5.4 The Impact of Parental Demographic Characteristics on the Proposed Mediation Model

Fourth, regarding the impact of these demographic characteristics on the mediation model we proposed, we have now systematically explored whether these demographic variables confound our main finding (variables that correlated with study variables and thus cause spurious relation between these variables; see MacKinnon et al., 2000). First, for the indirect effect of emotional display rules on parental burnout, among the variables that correlated with the predictor (emotional display rules), only “net monthly household income” further significantly correlated with serial mediators (deep acting, $r(346) = -.180$, $p = .001$; regulatory effort, $r(346) = -.140$, $p = .009$), and the outcome variables ($r(346) = -.171$, $p = .001$). Second, for the indirect effect of surface acting or deep acting on parental burnout, there are no other variables simultaneously correlated with the predictors (surface or deep acting), the mediator (regulatory effort), and the outcome (parental burnout). Therefore, we only need to take “net monthly household income” into consideration for our analysis.

We performed again our main analysis and set “net monthly household income” as a covariate which predict emotional display rules, regulatory effort, deep acting, and parental burnout. The result (see Table S7.3 and Figure S7.2) revealed that although the chi-square ($\chi^2(5) = 11.94$, $p = .036$) of the path analysis was significant, the other fit indices suggested that the proposed model still had a good fit to the data (CFI = .97, TLI = .92, RMSEA = .06, SRMR = .03, AIC = 11243, BIC = 11328). Moreover, path coefficients were all significant in the proposed direction, and the relation between surface acting and regulatory effort was higher than the relation between deep acting and regulatory effort ($\chi^2(1) = 8.98$, $p = .003$). The indirect effects of perceived emotional display rules (via surface acting/deep acting and the regulatory effort they involved), surface acting (via regulatory effort), and deep acting (via regulatory effort) on parental burnout were all significant ($ps < .05$). Among them, the standardized indirect effect of surface acting was, as expected, higher than deep acting (difference = 6.82, $SE = 1.87$, $z = 3.65$, $p = .000$, 95% CI [3.17, 10.49]).

These results revealed the covariate did not have any substantial influence on our findings. Moreover, our proposed model without covariates controlled (AIC = 10141, BIC = 10202) was more parsimony than the model taking covariates into account (AIC = 11243, BIC = 11328). These additional analyses align with previous literature showing that demographic characteristics usually have a small impact on parental burnout (e.g., Mikolajczak et al., 2018; Roskam et al., in press), making the predictive effect of other antecedents on parental burnout less vulnerable to confounding variables.

Table S7.1

Coefficients and Indirect Effect of Path Analysis Model of Associations Between Emotional Display Rule, Surface/Deep Acting, Regulatory Effort, and Parental Burnout (Represented by its Four Subscales)

Relations	Std. estimate	Unstd. estimate	SE ^a	z	p	95% CI	
						LL	UL
Measurement							
PB → EX	.92	1.00 ^b					
PB → CO	.86	0.54	0.03	15.74	.000	0.48	0.61
PB → FU	.96	0.49	0.02	28.05	.000	0.45	0.52
PB → ED	.80	0.23	0.02	11.06	.000	0.19	0.27
Path coefficient							
Display rule → Surface acting	.25	0.02	0.00	5.02	.000	0.01	0.03
Display rule → Deep acting	.23	0.03	0.01	4.22	.000	0.02	0.05
Surface acting → Regulatory effort	.37	7.48	1.01	7.40	.000	5.50	9.46
Deep acting → Regulatory effort	.15	1.66	0.58	2.88	.004	0.53	2.79
Regulatory effort → PB	.60	0.49	0.05	9.30	.000	0.39	0.60
Covariance							
Error (Surface acting) ↔ Error (Deep acting)	.24	0.18	0.04	4.14	.000	0.10	0.27
Indirect effect ^c							
Surface acting → PB	.22	3.68	0.72	5.13	.000	2.27	5.09
Deep acting → PB	.09	0.82	0.28	2.94	.003	0.27	1.36
Display rule → PB	.08	0.10	0.02	4.05	.000	0.05	0.14

Note. Std. estimate = standardized estimate; Unstd. estimate = unstandardized estimate; CI = confidence interval; LL = lower limit; UL = upper limit. EX, Exhaustion in Parental role; CO, Contrast in parental self; FU, Feelings of being fed up; ED, Emotional distancing. PB, Parental burnout.

^a SE was adjusted by Satorra-Bentler adjustments.

^b We fixed the factor loading of EX on PB at 1.00.

^c Indirect effect testing was calculated by Satorra-Bentler adjustments

Table S7.2*Partial Correlation Among Study Variables (with Demographic Characteristics ^a Controlled)*

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1 Display rule (show positive)												
2 Display rule (control negative)	.44**											
3 Display rule	.81**	.88**										
4 Regulatory effort (show positive)	.13*	.16**	.17**									
5 Regulatory effort (control negative)	.12*	.22**	.21**	.61**								
6 Regulatory effort	.14*	.22**	.21**	.85**	.94**							
7 Surface acting	.18**	.20**	.23**	.40**	.37**	.42**						
8 Deep acting	.27**	.10	.20**	.18**	.23**	.24**	.27**					

9	Exhaustion in parental role	.09	.10	.11*	.57**	.49**	.58**	.40**	.12*				
10	Contrast in parental self	.03	.11*	.09	.56**	.49**	.57**	.35**	.15**	.80**			
11	Feelings of being fed up	.04	.05	.05	.57**	.48**	.57**	.35**	.12*	.89**	.81**		
12	Emotional distancing	.03	.04	.04	.53**	.37**	.48**	.32**	.07	.71**	.69**	.78**	
13	Global parental burnout	.06	.09	.09	.61**	.51**	.61**	.40**	.13*	.96**	.91**	.95**	.81**

^a Demographic characteristics include parent's age, gender, marital status, net monthly household income, level of education, work regime, number of children, and the gender and age of each child.

* $p \leq .05$. ** $p \leq .01$.

Table S7.3

Coefficients and Indirect Effect of Path Analysis Model of Associations Between Emotional Display Rule, Surface/Deep Acting, Regulatory Effort, and Parental Burnout (with Net Monthly Household Income as Covariate)

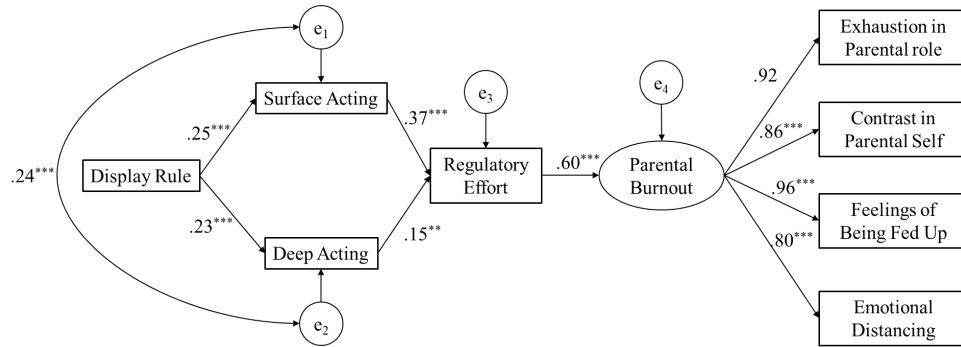
Relations	Std. estimate	Unstd. estimate	SE ^a	z	p	95% CI	
						LL	UL
Path coefficient							
Income → Display rule	-.12	-0.88	0.36	-2.44	.015	-1.59	-0.17
Display rule → Surface acting	.25	0.02	0.00	5.08	.000	0.01	0.03
Display rule → Deep acting	.21	0.03	0.01	3.85	.000	0.01	0.04
Income → Deep acting	-.16	-0.16	0.05	-3.12	.002	-0.26	-0.06
Deep acting Surface acting →	.38	7.55	0.98	7.68	.000	5.63	9.48
Regulatory effort Deep acting →	.12	1.42	0.57	2.51	.012	0.31	2.53
Regulatory effort Income →	-.11	-1.26	0.56	-2.27	.023	-2.35	-0.17
Regulatory effort Regulatory effort →	.58	1.11	0.13	8.65	.000	0.86	1.37
PB Income →	-.09	-1.95	0.83	-2.37	.018	-3.56	-0.34
PB							
Covariance							
Error (Surface acting) ↔ Error (Deep acting)	.24	0.19	0.04	4.29	.000	0.10	0.27
Indirect effect ^b							
Surface acting → PB	.22	8.41	1.67	5.03	.000	5.13	11.68
Deep acting → PB	.07	1.58	0.61	2.58	.010	0.38	2.78
Display rule → PB	.07	0.20	0.05	3.85	.000	0.10	0.31

Note. Std. estimate = standardized estimate; Unstd. estimate = unstandardized estimate; CI = confidence interval; LL = lower limit; UL = upper limit. Income, net monthly household income. PB, Parental burnout.

^a SE was adjusted by Satorra-Bentler adjustments. ^b Indirect effect testing was calculated by Satorra-Bentler adjustments.

Figure S7.1

The Model Where Parental Burnout is Represented by Its Four Subscales

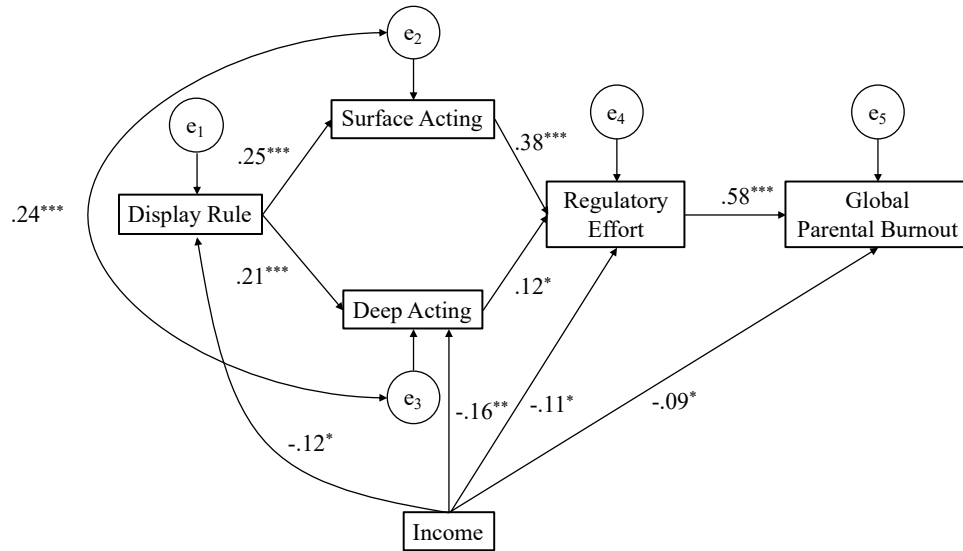


Note. Analysis procedures aligned with the section of “Analytic Strategy” described in Method. Model fit indices reveal the proposed model is a good-fit model (CFI = .98, TLI = .97, SRMR = .04, RMSEA = .06, $\chi^2(18) = 47.63$, $p = .000$). Coefficients presented are standardized linear regression coefficients.

** $p < .01$. *** $p < .001$.

Figure S7.2

The Proposed Model with Net Monthly Household Income as Covariate



Note. Coefficients presented are standardized linear regression coefficients.

$^{**}p < .01$. $^{***}p < .001$.

PART IV Finale

Chapter 8 General Discussion

General Discussion

While parenting can be tremendously fulfilling and joyful, it can also be enormously exhausting and stressful for today's parents, especially those in the Western world. According to several pioneering sociologists, parenting in Western societies has become more demanding and challenging over decades (at least since the 1990s; see Craig et al., 2014; Sayer et al., 2004); Western parents have become anxious and devote enormous amounts of time, energy, and money to raising their children (Lan, 2018; M. K. Nelson, 2010). Sociologists have referred to this parenting culture with terms such as the “intensive parenting norm” (Hays, 1996) or “paranoid parenting” (Furedi, 2002). Recently, psychologists have come to the fore and suggested that such a parenting culture may be so dangerous that it may even cause parents to develop parental burnout (Roskam et al., 2017). A recent large-scale cross-country study corroborated this proposition and showed that Western parents, as opposed to non-Western parents, are especially vulnerable to parental burnout (Roskam, Aguiar, et al., 2021). Why are Western parents more vulnerable? To answer this question, this thesis has explored potential antecedents to parental burnout from a review of Western parenting culture.

1. Western Parenting Culture

This thesis has identified the way in which, driven by modernization and the corollary social changes, today's Western culture has encouraged parents to be wary of all risks that may endanger children (M. K. Nelson, 2010). Such risk consciousness may cause a breakdown in trust between people and make them less willing to help each other, eroding solidarity with parents (Furedi, 2002). Meanwhile, science has gained a higher status, and it is science (rather than traditions) that many people now turn to in order to know how to live their lives (Giddens, 1994), including parenting. In part because of that, parenting science has flourished, creating the need for “parenting experts” to communicate knowledge to parents (E. Lee, 2014a). One pitfall of this communication by experts is that parental determinism could creep in and drive parents to strive for perfection in parenting (Furedi). On a broader level, society has also consolidated a notion of “correct parenting”—which usually incorporates unrealistic standards (e.g., Dupont et al., 2022)—and expects parents to put its prescriptions into practice (Faircloth, 2014). These factors have interacted to create today's Western parenting culture, with its ever-expanding sphere of responsibilities for parents.

The expansion of parental responsibilities may come with two opposite consequences for parents. First, expanding parental responsibilities are probably accompanied by more guidance on parenting. Parental responsibility is a social construct (E. Lee, 2014b)—“*an eddy in the social current and so still a part of the current*” (Mead, 1967, p. 182)—that evolves with social change and is enshrined in the culture of a given society. Passed on by culture,

parental responsibilities present guidelines for every parent or prospective parent. No parent enters parenthood as a *tabula rasa* or blank slate; before this happens, society has shaped its culture, defined the meaning of being a parent, delineated parental responsibilities, and indicated what parents should do for their society. Based on this reasoning, one may assume that the more parental responsibilities Western culture defines, the clearer the guidance Western parents can follow in fulfilling their parental role. Instead of acting aimlessly, parents can directly recognize, accept and carry out their assigned parental responsibilities.

On the flip side, the expansion of parental responsibilities places more demands on Western parents. Parental responsibilities may be socially prescribed to parents or be internalized by individual parents; in either case, they require the expenditure of effort. With growing responsibilities, Western parents may invest more effort to meet expectations, leaving them more exhausted. Earlier sociological studies have shown that compared to previous generations, today's parents are more fatigued by fulfilling their parental role in Western societies. This effect appears to be more prominent among those who favor the Western parenting culture—the “intensive parenting norm” (i.e., white parents; see Nomaguchi & Fetto, 2018, pp. 462–463). Recently, psychologists have proposed that under increased parental pressure, some parents could be so exhausted that they may end up suffering from parental burnout (Roskam et al., 2017, p. 3). Psychologists are therefore working to identify the nature (Mikolajczak et al., 2019), consequences (e.g., B. Yang et al., 2021), etiology (Mikolajczak & Roskam, 2018), and even treatment (Brianda, Roskam, Gross, et al., 2020) of parental burnout.

2. From Western Parenting Culture to Parental Burnout

A pivotal topic that warrants much attention from psychologists is the association of culture with parental burnout. Roskam, Aguiar, and colleagues' (2021) seminal paper collected a large-scale dataset from 42 countries and compared both the point prevalence and mean scores of parental burnout across countries. They found that both indicators vary widely across countries, with Western parents appearing to be more vulnerable (as indicated by point prevalence) and to suffer more (as indicated by mean scores) from parental burnout. To uncover the underlying cultural influence, the authors adopted Hofstede's (2001) six broad cultural indicators to represent the cultures of each country and examined how these indicators predict parental burnout across countries. Their results demonstrated that of all cultural indicators, only individualism (that prevails in Western countries; Henrich, 2020) significantly predicts parental burnout. These findings offer crucial insights: first, they corroborate sociologists' observation and demonstrate that Western parents (vs. others) are more exhausted; second, among Western cultures, it is individualism that drives the association. Their findings are also supported in a follow-up study by Lin and Szczygieł's (2022a).

These studies shed crucial insights—Western culture, particularly individualism, explains Western parents' higher vulnerability to parental burnout—yet individualism may not be the

whole story. Roskam and colleagues (2017) seek to untangle the knot by exploring the socio-historical roots of parental burnout to look for risk factors to explain Westerners' heightened vulnerability to it. This thesis has taken up this approach: possible factors have been identified, including the erosion of solidarity with parents, the budding of parenting perfectionism, and the circulation of unrealistic (or challenging) societal expectations regarding parenting. These factors appear to interact, reduce resources and impose risks on individual parents. Such an imbalance of risks over resources in the parenting context seems to provide a perfect recipe for the emergence (Mikolajczak & Roskam, 2018) and even prevalence of parental burnout in Western countries. The above account may not be just speculation. Along with studies by others, five chapters of this thesis offered the empirical evidence to evaluate this speculation, aiming to provide more information about the reasons why Western parents are prone to parental burnout.

3. Overview of the Main Results

These empirical chapters revolved around the association of parental burnout with (1) parenting perfectionism (and child-oriented perfectionism), (2) perceived social support, and (3) ideal-parent beliefs. Below, I will review the findings for each study; after that, I will stitch them together and set out some conclusions in the General Contribution about the light these findings throw on the speculation raised above.

3.1 Does Parenting Perfectionism Predict Parental Burnout?

Parenting perfectionism, or perfectionism contextualized in the parenting context, refers to parents setting a high standard of parenting and worrying excessively about their mistakes in caregiving. Previous research has long indicated the existence of parenting perfectionism and shown that some aspects of it correlate with negative consequences such as parenting stress (M. A. Lee et al., 2012; Snell et al., 2005). Taishi Kawamoto and his colleagues (2018) shed light on the role of parenting perfectionism in predicting parental burnout. They showed that in Japan, parenting perfectionism, particularly its dimension of perfectionistic concerns (concern about making mistakes in childrearing), can be so stressful that it is a predictor of parental burnout. The association of parenting perfectionism with parental burnout ($r = 0.42$, between perfectionistic concerns and parental burnout) shows a strong effect size. Such a finding suggests that parenting perfectionism could play a crucial factor in predicting parental burnout, even in a non-Western society.

Chapter 3 took this approach further and elaborated on the association of parenting perfectionism with parental burnout. The BR² theory of parental burnout was used and it was shown that the association of parenting perfectionism with parental burnout may be counterbalanced by a resource factor that is sufficiently potent (Mikolajczak & Roskam, 2018)—emotional competence (or “emotional intelligence”).

Empirically, in this chapter, I used two one-wave survey datasets that my colleagues had collected in Belgium and Poland respectively. The Belgian dataset includes 347 parents who

reported about their parenting perfectionism and emotional competence. The Belgian dataset was collected as part of a large project (which also included the study in Chapter 7); because that project had encompassed too many measurements to assess, only the intrapersonal dimension of emotional competence was used. The Polish dataset supplements that; it involves data from 377 parents who completed the entire emotional competence measure. Regression analyses with interactions were conducted on the Belgian and Polish datasets separately. The results first concur with previous studies in showing that of the two dimensions of parenting perfectionism, perfectionistic concerns especially predict parental burnout (Kawamoto et al., 2018). Second, better emotional competence not only predicts less parental burnout symptoms but also, as I hypothesized, serves as a resource factor that buffers the association of perfectionistic concerns with parental burnout.

Chapter 4 went a step further by extending parenting perfectionism to include child-oriented perfectionism; parents who strive for excellence may expect perfection from both themselves and their children. Child-oriented perfectionism refers to parents' tendency to expect their children to strive for perfection and be perfect (Piotrowski, 2020). Chapter 4 showed that child-oriented perfectionism, and particularly the discrepancy between expectations and reality, may predict parental burnout, and that such an association is buffered by emotional competence.

Empirically, in this chapter, I used a one-wave cross-sectional survey dataset of 325 Polish parents collected by Dr. Dorota Szczygieł. Regression analyses with interactions were conducted. The results first supported previous studies in showing that of all dimensions of child-oriented perfectionism, consciousness of discrepancy is a crucial detrimental factor (Piotrowski, 2020) that takes a toll on parents' well-being and predisposes them to parental burnout. The detrimental effects of discrepancy may result from the constant emotional distress caused by it (M. M. Smith et al., 2020). Our findings also aligned with prior studies (such as that presented in Chapter 3) in showing that better emotional competence not only predicts less parental burnout symptoms but also, as I hypothesized, serves as a resource factor that buffers the adverse effects of discrepancy. However, the result showed that the effect sizes of discrepancy were so great that emotional competence could not wholly offset the effect. This finding suggests that emotional competence cannot offset the parenting difficulties that child-oriented perfectionism may create (Piotrowski, 2020).

In summary, Chapters 3-4 together show that for parents in Western countries (i.e., Belgium and Poland), endorsing parenting perfectionism and child-oriented perfectionism may predict more parental burnout symptoms; however, better emotional competence buffers these predictive associations.

3.2 Does Limited Social Support Predict More Parental Burnout Symptoms?

Social support—or to be more precise individual perceptions of their potential access to support from their social network—has long been suggested as a crucial interpersonal resource factor in predicting parental burnout. Studies agree that the lack of social support

may predict higher vulnerability to parental burnout (e.g., Lindström, Åman, et al., 2011; Szczygieł et al., 2020; Yamoah & Brown, 2022). Chapter 4 took this association one step further; it drew on the BR² theory of parental burnout (Mikolajczak & Roskam, 2018), showing that protective factors exist to offset the association of a lack of social support with parental burnout. Emotional competence—an intrapersonal resource (i.e., one that relates to parents' personal ability)—is such a protective factor; this chapter showed that parents' emotional competence, such as a greater propensity to use a better emotion regulation strategy—cognitive reappraisal (see Goldin et al., 2008; Megías-Robles et al., 2019; Wang et al., 2021), could counterbalance the predictive effect of a lack of social support on parental burnout.

Empirically, in this chapter, I used a one-wave cross-country survey dataset of 1,835 parents collected by my colleagues. They collected data from five countries (United States, Belgium, Poland, Turkey, and Peru) to broaden the socio-demographic background of participants. In preliminary analyses, I found that parental burnout significantly varied between countries in this dataset, so I decided to analyze the data with multilevel random intercept models. The result demonstrated that although the presence of cognitive reappraisal helped to compensate for the absence of social support, the effect size of lacking social support was so strong that reappraisal could not wholly offset the effect. This finding may imply that lack of social support is too crucial for parents to be fully offset. As regards the underlying reason, a recent study has shown that social support is crucial for parents because it provides resources that can satisfy all the different basic needs of parents (Gugliandolo et al., 2021).

In summary, this study shows that reduced social support may indeed predict a higher vulnerability to burnout; however, a propensity for cognitive reappraisal may partially offset the predictive effect of lacking social support.

3.3 Does Western Ideal-Parent Beliefs Predict Parental Burnout?

Finally, we examined whether the ideal-parent beliefs prevailing in Western countries predict parental burnout. To explore this question, Chapter 6 first delineated ideal-parent beliefs—the characteristics that parents believe a good parent should ideally have. These beliefs represent a meaning system and lens through which parents perceive, understand, and implement their parenting practices (George & Solomon, 2008; Super & Harkness, 2020b). Therefore, ideal-parent beliefs serve as an internal guide to parenting behaviors, parental decision-making, and parenting tasks in everyday or even challenging situations (Feudtner et al., 2015; Lo Cricchio et al., 2019; Zhong et al., 2020). Chapter 6 considered whether Western parents together subscribe to a particular type of ideal-parent beliefs and what its pattern or characteristics are.

I used the cross-country survey dataset of parents' ideal-parent beliefs that the International Investigation of Parental Burnout (IIPB) consortium had collected between 2017 and 2019. The IIPB Consortium assessed ideal-parent beliefs of 8,357 mothers and 3,517 fathers (i.e., cultural insiders) from 37 countries by directly asking each of them to

freely state five characteristics they believed a good parent should ideally possess. Parents were asked to answer in their native language; for the ease of further analysis, after collecting raw responses, IIPB local researchers from each country translated the dataset into English in a manner that ensured meaning equivalence. IIPB local researchers would look for approximations, for instance, a sentence or phrase, that best conveyed the meaning of the raw responses instead of limiting themselves to translated features to specific single words in English.

On this dataset, I conducted an automated content analysis to analyze the pattern of ideal-parent beliefs; specifically, I performed semantic network analyses (SNAs) through an unsupervised machine learning technique with Leximancer (see A. E. Smith & Humphreys, 2006 for the validity of the tool). This quantitative content analysis could be used to discover patterns in ideal-parent beliefs in each country/culture and demonstrate important (i.e., frequently occurring) concepts and themes. I was aware of our dataset's considerable variation in sample size between countries. To circumvent this pitfall, I used a two-step procedure to prevent countries with larger sample sizes from being overrepresented in the result. Since countries may have similar cultures and thus ideal-parent beliefs, I first asked Leximancer SNA to show the similarity between ideal-parent beliefs for countries. This allowed us to delineate culture zones by grouping countries with similar ideal-parent beliefs. After this preliminary step, I combined data from countries within the same parenting culture zone and conducted new SNAs on each sub-dataset for each culture zone, exposing their ideal-parent beliefs.

This study identified 5 parenting culture zones across the 37 countries: (1) Asian, (2) African, (3) Hispanic-Italian, (4) Western I (mainly consisting of English-speaking and EU countries) and Russian, (5) Western II (mainly consisting of French-speaking countries). The findings revealed both commonalities and differences in the predominant ideal-parent beliefs in the five parenting culture zones. First, we found a similar result for both ideal-mother and ideal-father beliefs, suggesting the existence of “parenting” cultures around the world rather than distinct “mothering” and “fathering” cultures. Second, we discovered a similar set of extracted concepts across the five culture zones. However, the importance of each concept varied from culture zone to culture zone, distinguishing types of ideal-parent beliefs across culture zones. There are “responsible and children/family-focused” for Asian parents, a “responsible and proper demeanor-focused” type for African parents, a “loving and responsible” type for Hispanic-Italian parents, a “loving and patient and caring” type for Western I and Russian parents, and a “loving and patient and listening/present” type for Western II parents.

In a nutshell, Chapter 6 compared and examined ideal-parent beliefs across countries and cultures. This analysis discovered that Western parents, including those from many English-speaking, French-speaking, and EU countries, especially endorse an ideal-parent belief that a good parent should possess the characteristics of being loving, patient, caring, and listening. This belief corresponds to child-centered parenting or exclusively positive parenting. Such a parenting approach particularly emphasizes appropriate parental emotion, requiring parents

to embrace warmth and support and to support the child's autonomy and development (see Dupont et al., 2022; Larzelere et al., 2017; Rodrigo, 2010). This emphasis obviously contrasts with parenting styles prevalent in other countries (e.g., those prevalent in African parenting culture: proper demeanor of obedience and respect; see A. M. Miller & Harwood, 2002). These distinctive Western ideal-parent beliefs, along with the fact that Western parents are more vulnerable to parental burnout (Roskam, Aguiar, et al., 2021), appear to imply that requiring parents to regulate and appropriately express their emotions may put them at risk for burnout.

Chapter 7 offered preliminary evidence in support of this proposal; this study was originally designed to explore whether requirements regarding emotional display—expressing positive emotions and controlling negative ones—may put parents at a greater risk of parental burnout. To this end, this study presented an “emotional labor in parenting” framework by adapting for the parenting context the emotional labor framework initially developed in the affective science of organizational psychology (Grandey et al., 2013; Hochschild, 1983). Our framework delineated emotional display rules requiring parents to express positive emotions like love and joy and to control their negative emotions like stress and irritation in front of their children. Parents acknowledge the existence of these rules and invest enormous efforts in regulating their emotions to comply with the rules; such efforts may be so demanding that they eventually predispose parents to parental burnout.

To verify this framework, I used the dataset of 347 Belgian parents that my colleagues had collected (as part of the same project as Chapter 3). The findings corroborated the framework. First, the emotional display rules exist in the parenting context; parents reported that it is important to show positive emotions and refrain from negative ones in childrearing. Second, parents invest efforts to comply with these rules, making them vulnerable to parental burnout. It was also found that such vulnerability varies according to how parents invest their efforts: parents are at higher risk of burnout when they prefer to invest efforts in surface acting (e.g., using expressive suppression to express correct emotions) as opposed to deep acting (e.g., using cognitive reappraisal to align felt and required emotions; Grandey, 2000). In sum, Chapter 7 suggested that the emotional display rules might indeed expose parents to burnout.

Taken together, Chapters 6-7 demonstrate that Western parents subscribe to a specific pattern of ideal-parent beliefs. Such beliefs might generate emotional display rules that deplete parental energy and eventually exhaust parents.

4. General Contributions

4.1 Contributions to Parental Burnout Literature

4.1.1 Why Western Parents are Prone to Parental Burnout

This thesis contributes to the parental burnout literature in several ways. To begin with, it complements previous studies on why Western parents are particularly prone to burnout.

Roskam and colleagues (2017) suggest that the reason could be that contemporary Western parenting culture has become too demanding and exhausting. To corroborate that, I conducted a review of socio-historical roots of parental burnout (see Figure 2.1), suggesting that a “peculiar” parenting culture may manifest itself with three characteristics: (1) parents cultivate parenting perfectionism (see M. A. Lee et al., 2012); (2) parents perceive social solidarity with them as having been eroded (Furedi, 2002); and (3) society incorporates challenging (unrealistic) parenting standards into ever-increasing “correct parenting” expectations for parents (e.g., Dupont et al., 2022). These characteristics might develop an imbalance of fewer resources and more risks in the parenting context. According to the BR² theory of parental burnout (Mikolajczak & Roskam, 2018), such a parenting imbalance can ultimately usher in parental burnout. It should therefore come as no surprise that Western parents—who bear the brunt of this “peculiar” parenting culture—are prone to burnout.

Our empirical chapters compiled evidence supporting the association of these cultural characteristics with parental burnout. First, as regards parenting perfectionism, Kawamoto and colleagues (2018) uncovered the effect of parenting perfectionism on parental burnout. Chapter 3 extended the generalizability of their findings from Japan to two Western countries (Belgium and Poland). It was shown that, like Japanese parents, Belgian and Polish parents who endorse parenting perfectionism have more burnout symptoms. Chapter 4 considered that parents could expect perfection from both themselves and their children; the study presented there introduced the construct of child-oriented perfectionism into the parental burnout literature and showed that parents who endorse child-oriented perfectionism also have more burnout symptoms. Next, Chapter 5 elaborated on the impacts of eroded solidarity; the study that was presented analyzed a dataset from a sample of diverse sociodemographic backgrounds (in both Western and non-Western countries) and showed that parents who experience limited social support have more burnout symptoms. These studies suggest that characteristics such as parenting (and child-oriented) perfectionism and limited social support, might be risk factors for burnout (because of the research design, however, our studies do not provide sufficient evidence for causality interpretation).

Second, the last two chapters provided evidence for the third cultural characteristic as a risk factor for burnout. Chapter 6 explored ideal-parent beliefs and showed that Western parents believe that good parents should have the qualities of being “loving,” “caring,” “patient,” and “calm.” This ideal-parent belief appears consistent with the parenting strategies included in exclusively positive parenting—the philosophy that parents should take care of their children with warmth and support—promoted in government policy and by experts in many Western societies (Dupont et al., 2022). This finding may imply that parents already internalize such public discourses and see these expectations as their own beliefs and internal guide (however, the reverse may also be plausible, i.e., policies reflect characteristics of parents’ ideal-parent beliefs). Chapter 7 further revealed that such beliefs may be a factor in burnout. Specifically, they may generate emotional display rules; parents then make regulatory efforts to comply with the rules, which depletes their resources—and the more efforts parents invest, the more vulnerable they are to burnout. These studies exposed the harms of parenting ideals endorsed by Western parents (still, due to the research design, this

study does not offer sufficient evidence for causality interpretation).

With these empirical studies, we corroborated the first cascading building blocks of the socio-historical roots of parental burnout (see Figure 2.1) while explaining why Western parents are prone to parental burnout.

4.1.2 A New Operationalization of the BR² Theory of Parental Burnout

Furthermore, this thesis contributed to the parental burnout literature by providing a new operationalization of the BR² theory of parental burnout. This theory suggests that parental burnout results from a chronic imbalance between risks and resources. The imbalance is assessed through a weighted arithmetic sum of all antecedent factors possessed by individuals (Mikolajczak & Roskam, 2018). Diverting from this original proposition, I argue that the imbalance in the parenting context should be assessed through the non-additive interaction terms between relevant antecedents (e.g., resource factors offset the harm of risk factors). The studies described in Chapters 3-5 support this new interpretation and show that emotional competence (e.g., adopting better emotion regulation strategies) is a powerful resource that buffers the effects of parenting perfectionism, child-oriented perfectionism, and even limited social support. Overall, this design provides a simpler operationalization of the BR² theory. The BR² theory can be applied to test the effect of interaction terms between a limited number (e.g., two) of antecedent factors on parental burnout as opposed to the original operationalization in which many risks and resources must be considered together.

4.2 Contribution to Parental Well-Being Literature

My thesis contributes further by providing input in the ongoing debate on how taking on a parental role affects a person's well-being. One of the earliest research approaches to this question sought to directly compare the well-being of parents and non-parents. Researchers within this discipline believe that due to the caregiving burden placed on parents, they should have worse well-being than non-parents. However, the findings are inconclusive: some studies have shown that as opposed to non-parents, parents (with children in the household) reported less well-being, such as more negative emotions (e.g., being more anxious; Simon & Nath, 2004), less sleep (Carson et al., 2018), and more depressive symptoms (Evenson & Simon, 2005). Others, however, have found that some parents experience higher well-being, such as a greater sense of meaning in life (Study 1 in S. K. Nelson et al., 2013), life satisfaction (Pollmann-Schult, 2014), and more positive emotions (Study 2 in S. K. Nelson et al., 2013). Reviewing these studies has led some researchers to conclude that difference in findings arises from sample characteristics; being a parent may benefit some parents but put others at risk (S. K. Nelson et al., 2014; Nomaguchi & Milkie, 2020).

Accordingly, parents' characteristics may have obscured the relationship between the parental role and parental well-being. Parental characteristics moderate the salience of both benefits and harms that assuming a parental role may entail, thereby affecting parental well-being. In terms of benefits, assuming a parental role creates opportunities for parents to meet their basic needs, thus improving parental well-being (Kenrick et al., 2010). In terms of harms,

assuming a parental role requires parents to make efforts and exhausts parents in their attempts to fulfill the responsibilities defined in their culture, therefore compromising parental well-being. Whether parents experience better or worse well-being depends on the weighting of these two alternative mechanisms (S. K. Nelson et al., 2014; Nelson-Coffey & Stewart, 2019; Nomaguchi & Milkie, 2020): parents may experience worse well-being when parental responsibilities are too heavy to be balanced by the parental role's benefits. Complementing this line of research, this thesis identifies factors that may add to parental responsibilities, take a toll on parents' well-being, and induce parental burnout; these factors include parenting (and child-oriented) perfectionism, lack of social support, and ideal-parent beliefs—all of which are now part of the mindset and experience of many Western parents.

4.3 Contribution to Emotional Competence Literature

Finally, this thesis contributes to the literature on emotional competence in three ways. First, it adds a nuance to the beneficial effects of emotional competence. Previous literature has accumulated rich evidence on how such competence improves well-being and protects individuals from the harms of life stressors (see Petrides et al., 2016). Recent studies have also shown that emotional competence is potent enough to predict fewer parental burnout symptoms (e.g., Bayot et al., 2020). This thesis takes the literature a step further and shows that emotional competence may even buffer parents from the positive associations of other factors with parental burnout. However, the studies presented showed that emotional competence is not a panacea: it only partially buffers the harmful effect of child-oriented perfectionism (Chapter 4) and limited social support (Chapter 5). These two antecedent factors appear to have harmful effects that better emotional functioning and emotional competence cannot offset. For example, emotional competence may not fix the parenting difficulties that child-oriented perfectionism can create (Piotrowski, 2020) and the unsatisfied personal needs that limited social support may entail (Gugliandolo et al., 2021).

Second, although the thesis has consistently shown beneficial effects of emotional competence, there are inconsistencies between these findings and those of previous studies. These inconsistencies revolve around the fact that emotional competence includes both intrapersonal (focused on one's own emotions) and interpersonal dimensions (focused on others' emotions). While intrapersonal emotional competence consistently predicts less burnout, interpersonal emotional competence sometimes predicts more (Bayot et al., 2020) and sometimes fewer burnout symptoms (Chapter 3). To disentangle this conflict, we reanalyzed the datasets from conflicting studies (Lin, Roskam, et al., 2021; also collected in Appendix B). The results revealed that intrapersonal emotional competence drives the protective effect of interpersonal emotional competence. After this has been adjusted for, interpersonal emotional competence has insignificant effects or even significant adverse effects on parental burnout. I agree with Bayot and colleagues that interpersonal emotional competence may expose parents to risks of being over-sensitive to the emotions of others and responding more quickly to others' (e.g., children's) emotional needs, thereby exhausting parents more and negating the benefits of interpersonal emotional competence. These

findings suggest that caution should be exercised regarding our finding for interpersonal emotional competence.

Third, we have shown that emotional competence may mediate the association of other factors with parental burnout. Specifically, Chapter 7 showed that regulation strategies (precisely, emotional labor strategies) explain the association of emotional display rules with parental burnout. Moreover, choice of strategies appears crucial: parents are at greater risk of burnout when they prefer using surface acting (concealing felt emotions to express appropriate ones, e.g., through expressive suppression) as opposed to deep acting (aligning felt and expressed emotions, e.g., through cognitive reappraisal). We recently also found that expressive suppression explains the association of parenting perfectionism with parental burnout (Lin & Szczygieł, 2022b; collected in Appendix C). These studies concur that expressive suppression (and the corollary emotion regulation strategies, e.g., surface acting) might be a crucial explanatory factor that links risk factors with parental burnout. This is unsurprising, as suppression tends to be a costly strategy that requires countless efforts from individuals to continuously monitor their emotional expression and express correct emotions, depleting more energy and predisposing them to exhaustion (see Goldberg & Grandey, 2007; McRae, 2016).

As seen, together with follow-up studies, this thesis has found that expressive suppression might explain and mediate the effects of risk factors on parental burnout. However, such an insight is limited because parents rarely rely on a single regulation strategy in daily parenting. Parents simultaneously employ a wide range of regulation strategies, and the pattern (called emotion polyregulation; Ford et al., 2019) may vary from parent to parent. With this in mind, we can first expect that parents may adopt different forms of emotion polyregulation in response to detrimental risk factors and thus experience more or fewer parental burnout symptoms. Second, we can also hypothesize that although risk factors predispose parents to expressive suppression and put them at risk for burnout, parents may flexibly supplement this with other adaptive emotion regulation strategies and thus reduce harm (S. Chen & Bonanno, 2021; John & Gross, 2004; Preece et al., 2021). These questions that remain open illustrate that emotion polyregulation is an excellent research direction for future studies; future studies may explore how parents cope with risk factors in their daily lives with a longitudinal diary design (e.g., Lischetzke et al., 2021).

5. General Implications

5.1 Theoretical Implications

5.1.1 Culture and Parental Burnout

To explore why Western parents are more vulnerable to parental burnout, this thesis offers a cultural account, arguing that Western modernization and the corollary social changes (that renders cultural changes such as the increase of individualism and the demise of tradition Beck & Beck-Gernsheim, 2002; Giddens, 1994) have led to a growth in risk factors for

parental burnout. Specifically, relying on a deductive approach, this thesis has identified factors, such as parenting perfectionism and social support, and accordingly made inferences and hypotheses (i.e., testing their associations with parental burnout). Overall, this cultural account has braided all these factors together and situated them in the Western socio-historical background, offering an account of how modernization and the corollary social changes drive Westerners' higher vulnerability (see Figure 2.1). Some of the factors have been examined in previous studies for their associations with parental burnout, but this cultural account is beneficial in that it “zooms out” from the studies and assesses the “big picture” that shapes these factors—the broader ecosocial milieu and its socio-historical background (see Nomaguchi & Milkie, 2017).

This cultural account also implies that factors may interact with one another and together point to a specific ecosocial milieu (with its socio-historical background), supporting a particular culture—a package of beliefs, values, norms, and practices shared among a community of individuals (see Keller, 2018; J. G. Lu et al., 2023)—such as that conducive to burnout. This implication is crucial. It suggests that “culture” can drive the association of specific factors with burnout, or, namely, that “culture” may confound the association between specific factors and parental burnout.

Building on this implication, I call for an alternative interpretation of the BR² theory of parental burnout. This model claims that parental burnout results from the imbalance of risk versus resource factors in the parenting context. Such an imbalance can be assessed by the BR² measure, which consists of items relating to relevant antecedents to burnout—operationalized as antecedents that are significantly correlated with parental burnout as reported in prior studies (Mikolajczak & Roskam, 2018). With a cultural account, we can interpret these antecedents as relevant for parental burnout because they together indicate a given ecosocial milieu that supports a culture conducive to parental burnout. This alternative interpretation explains a paradox noted by Woine, Roskam, and Mikolajczak (2023): the BR² measure should have low between-item associations because it consists of items indicating dissimilar antecedents, but the data show the opposite. The high between-item associations may arise precisely because these antecedents together point to specific cultures which drive the association. Future studies could explore this possibility by analyzing the associations between BR² items and cultural values with canonical correlation analyses.

Finally, our findings implicate reasons why non-Western parents may also experience burnout. Firstly, non-Western cultures, albeit potentially through different mechanisms, may give rise to similar burnout-related factors as those explored in this thesis, placing demands on non-Western parents and making them vulnerable to burnout. Additionally, Western parenting culture can extend to the non-Western world (Gauthier et al., 2021; Lan, 2019). Some parents may directly adopt Western practices and assimilate burnout-related factors into their daily routines, thereby putting themselves at a comparable risk of burnout as experienced by Westerners. Other parents may struggle to reconcile Western parenting practices with their own cultural heritage (see Mesquita et al., 2019), resulting in conflict and thus an increasing risk of burnout. These proposals are based on the findings of the thesis,

which primarily focused on understanding parental burnout among Western parents. However, it is important to acknowledge that these proposals, given that they are based on our perspectives focusing on Western parenting culture, may overlook the discovery of unique burnout-related concepts in the non-Western world. To enhance understanding, future research could explore parental burnout in the non-Western world using decolonial research methodology that considers the non-Western ecosocial milieu (Raval, 2023).

5.1.2 Empirical Cycles for Cultural Research

This thesis echoes calls done by many previous researchers (e.g., Baskerville, 2003) in arguing that the science of “culture” includes knowledge about both cross-cultural differences and the socio-historical origin of a given culture (cultural phenomenon). Culture is “the way of life of a people, including both the external, socially constructed environments for living and the internalized rules, expectations and values that guide communication, thinking and behavior.” (S. Harkness, 2023, p. 25). On the one hand, culture may form “patterns that distinguish one group of people from another” (Kaasa, 2021, p. 339), thereby constituting cultural differences. On the other hand, culture manifests itself as “a historically transmitted pattern of meanings embodied in symbols, [...] of which men communicate, perpetuate, and develop their knowledge about and attitudes toward life” (Geertz & Darnton, 2017, p. 139). The socio-historical root of “culture” offers a “particular story of how things stand” (Martin, 1998, p. 25) and how cultural phenomena develop. The two kinds of knowledge—about cultural differences and about the socio-historical roots of cultures (the latter seems to have been sidelined in current scholarship; see Kuper, 1999, pp. 228–229)—together present an overall picture of “culture” (Lansford et al., 2016).

Given that complexity, a whole empirical cycle—observation, induction, deduction, testing and evaluation (Poortinga & Fontaine, 2022; Trommsdorff, 2023)—is needed to unravel “cultures” that are intricate as puzzles (S. Harkness, 2023). This is what this thesis seeks to do. We first observed from the cross-cultural explorative study by Roskam, Aguiar, and colleagues (2021) that Western countries appear to have a higher prevalence of parental burnout. We explained this prevalence difference by deducing potential risk factors from a review of Western parenting cultures; we then compiled five empirical chapters to evaluate these hypotheses. In this way, this thesis has demonstrated a cultural influence on parental burnout (to explain why Western parents are prone to parental burnout). What we have done in this thesis can be generalized and applied to future studies that aim to establish an empirical cycle to promote cultural understanding: researchers can first rely on cross-cultural and exploratory study without *a priori* hypotheses to uncover commonality and specificity (about a particular phenomenon) across cultures. Based on these inductive observations, researchers can proceed to derive hypotheses and evaluate these through empirical studies.

Such a procedure appears very fruitful. For instance, Chapter 6 presents a cross-cultural explorative study showing that Western parents subscribe to an “exclusively positive parenting” ideal-parent belief. Why may this be so closely associated with burnout as shown in Chapter 7? Against the socio-historical background, we may deduce that such an ideal stems from the child-centered parenting of the 1950s, which originated in response to

violence and aggression. Child-centered parenting thus has the spirit of liberalism—an ideology emphasizing human rights (e.g., sexual freedom) and equality (Kerlinger, 2022). It hypothesizes that childrearing with love and care allows children to learn empathy, and the capacity for nurturance, thereby facilitating a society where people are kindly, tolerant, and non-aggressive (Hendrick, 2016). Such a “nurturant parent” model contrasts with the “strict father” model of conservatism—an ideology that emphasizes the status quo and acceptance of inequality (i.e., social differentiation: see Kerlinger)—particularly prevalent before the world wars. The “strict father” model holds that parenting with discipline and clear rewards and punishments enables children to discipline themselves, creating a society where social order is maintained (Chao, 1994; Lakoff, 2016).

Given this, we can infer from Chapter 6 that today’s Western parents prefer liberal over conservative parenting, at least in determining their parenting ideals. If this inference and implication are valid, we may ask why today’s Western parenting tilts so much toward liberalism. One likely reason is that those on whom parents today rely to guide their parenting—parenting experts or psychologists (E. Lee, 2014a)—lean toward liberalism themselves. For example, Duarte and colleagues (2015) compiled evidence that social psychologists were once ideologically heterogeneous but have tilted toward liberalism. Consequently, liberal values and assumptions may be embedded in studies, leading to, for example, a concentration on topics that validate the liberal narratives and avoid topics that undermine them (Haidt, 2016). This liberal homogenization may also have occurred in parenting science: parenting researchers may be so liberal that they tend to explore (the beneficial) effects of the “nurturant parent” model and have less to say about (or are less inclined to explore the beneficial effects of) alternative models. This trend gives the public the impression that only the “nurturant parent” model is positive and recommended by scientists.

Such an interpretation—that parenting ideals are liberal-dominated—may indicate why the US is among the countries with the highest parental burnout prevalence (Roskam, Aguiar, et al., 2021). A crucial part of American culture is political partisanship (i.e., commitment to a political party): today, 56% of Americans consider themselves either Republican or Democrat (Jones, 2023). This partisanship is ideologically polarized, with most self-identified Democrats being liberal and most Republicans being conservative (Levendusky, 2009). Thus, there are already many people espousing conservative values (36% of Americans; Saad, 2022); studies have shown that parenthood can drive individuals toward conservatism (Kerry et al., 2022). Chapter 6 points to the ideological conflicts for this large conservative population: while they internalize liberal parenting as an ideal, their political partisanship supports the opposite. Such ideological conflicts may perhaps lead to confusion that ultimately exhausts parents, thus explaining the high prevalence of parental burnout in the US. If this proposition holds, given ideological polarization as an American cultural characteristic, then it may also introduce nuances, suggesting that specific Western countries may show high parental burnout prevalence due to unique cultural mechanisms.

5.2 Practical Implications

This thesis offers several practical implications. First, practitioners should mitigate the risk factors exposed in this thesis: limited social support and endorsement of parenting perfectionism and child-oriented perfectionism and emotional display rules¹⁸. This has been mostly implemented in the psychoeducation program of Brianda, Roskam, Gross, and colleagues (2020), which instructs parents in numerous parenting strategies, adjusts their expectations of parenting (e.g., reducing perfectionism), shares methods for getting more support from their co-parent or family (e.g., how to allocate parental responsibilities), and presents ways in which parents can distance themselves from external social pressures. This program has proven effective in alleviating burnout. However, it requires individual parents to make efforts to attend the psychologist-led intervention. This is a challenge because the energy of parents with burnout may already be depleted, not to mention the extra effort they must make to participate in treatment. This underscores the need for a method without the active participation of individual parents.

Second, crucially, if what this thesis suggests is true—that parental burnout stems from practices deeply rooted in culture (with socio-historical roots)—then parental burnout should be seen as a societal issue anchored in the specific ecosocial milieu (see Keller, 2018). In this sense, to efficiently treat parental burnout, practitioners must “prescribe the right medicine: they must not only focus on intervening with individual parents and alleviating their burnout symptoms but must also target its source and work at the societal level, creating an ecosocial milieu whose culture is less conducive to parental burnout. At first glance, this may look naïve, and it may be thought that society or culture cannot be changed, but it is possible. Generations of social justice activists and scholars have successfully tackled culturally entrenched problems (e.g., climate change or violence against women) by changing established cultures or norms (i.e., standards of appropriate behavior; Finnemore & Sikkink, 1998), an approach known as intentional norm-change (Berman, 2001).

Given the above discussions, it appears that practitioners need to treat parental burnout with a method (1) that mitigates risk factors without treating individual parents (e.g., by asking them to attend an intervention program) and (2) that can effectively tackle problems at the societal level, for instance by engaging in intentional norm-change. Many possibilities exist; here, I propose direct public health communication (Maibach & Holtgrave, 1995), persuading parents and non-parents to co-create an environment friendlier for parenting, thus reducing the risk of parental burnout. To this end, I refer to intentional norm-change strategies summarized in Raymond and colleagues (2014). These strategies have successfully brought about norm changes, weakened the existing culture, and introduced/disseminated a new one. Based on that, I propose below a two-step plan that meets the needs of practitioners—a

¹⁸ Caution should be warranted because, although these factors are theoretically categorized as risk factors, this thesis does not have sufficient evidence to support this categorization due to the cross-sectional and correlational study design employed throughout the empirical chapters.

stepwise public health communication process aiming to create an environment that harbors a culture less conducive to parental burnout without treating individual parents¹⁹.

5.2.1 Step 1: Weakening the (Detrimental Aspects of) Existing Culture

Communication must begin by foregrounding the cultural status quo. Despite culture and norms having a powerful guiding effect, they are easily overlooked. These conceptions usually operate implicitly or unconsciously to offer people guidelines they do not consciously recognize. Therefore, Raymond et al. (2014) suggested that to bring about successful cultural changes, practitioners should draw public attention to the existing culture and invite the public to evaluate these conceptions, in other words, to criticize the culture. This procedure is crucial because it can weaken the existing cultural beliefs. Experimental studies by Becker and Swim (2011) have shown that individuals reduce their endorsement of sexist beliefs after being primed to pay attention to sexism and its negative impact in their daily lives. On this basis, we may directly invite the participants to pay attention to the aspects (and their disadvantages) of current parental burnout-inducing cultural characteristics (e.g., eroded solidarity with parents) in their daily lives to weaken people's endorsement of those characteristics.

5.2.2 Step 2: Introducing/Disseminating a New Culture

Having weakened the existing parenting culture, we may introduce a new culture—for instance, communicate with the public about ways to enhance social support. This can be done effectively through emphasis framing. Emphasis framing refers to emphasizing different features of information to evoke different responses from people; if those features resonate with the audience's pre-existing ideology (schemata of interpretation; Gamson & Modigliani, 1989; Goffman, 1974), the communication will be more effective and persuasive (Luong et al., 2019). For instance, emphasis framing has been proven to be especially effective if it can relate to a person's endorsed moral values—a technique called “moral framing” (Feinberg & Willer, 2019). Recent research has shown that Americans' support for legal immigration increases when they receive positive information about the economic effects of immigration couched in the moral frame of group loyalty—an important moral value for Americans (Voelkel et al., 2022). Given such findings, it seems plausible to frame communication by introducing “new parenting culture” with frames related to moral values: for example, we may communicate the information that enhancing parental social support

¹⁹ Emphasis should be placed on the fact that this thesis does not propose a complete rejection of Western parenting culture. It recognizes the important function of (Western) parenting culture in providing guidance and instructions for every parent or prospective parent on how to fulfill their parental role and make choices regarding parenting practices based on prescribed parental responsibilities. The existence of parenting culture is considered crucial in this regard. Therefore, rather than advocating for the rejection of the entire Western parenting culture, the aim of this thesis is to suggest measures that society can implement to promote the evolution of Western parenting culture in a potentially better direction. In other words, the intention is to identify ways to enhance and improve existing practices within Western parenting culture, rather than discarding it altogether.

satisfies basic human needs/rights (e.g., Gugliandolo et al., 2021).

In addition to this method, we may work directly on the socio-historical roots of culture; the socio-historical review in this thesis suggested that a driving force behind parental burnout might be Western countries' modernization and the resulting parental risk consciousness. That risk consciousness has further increased because of media interest in presenting frightening narratives about children's safety and future. Consequently, even though society is not necessarily becoming more dangerous, parents are becoming overly concerned about their children (Giddens, 1999; M. K. Nelson, 2010). Such a high risk consciousness may erode parental solidarity and reinforce parenting perfectionism, further fueling parental burnout. If this hypothesized etiological process is true, we can nip parental burnout in the bud by reducing risk consciousness. The method to achieve this is simple: we can directly inform parents about how dangerous/safe society is in reality; once parents know that society is not as dangerous as they were led to believe, rational parents may reduce their anxiety. I believe this is a promising approach: previous studies have shown that such a "knowing-reality" technique is effective in correcting inaccurate conceptions and thus reducing Americans' support for partisan violence (Mernyk et al., 2022)²⁰.

Moreover, we could design tailor-made persuasive arguments to combat the antecedents of parental burnout revealed in this thesis. To begin with, concerning social support, we may seek ways to encourage people's empathy toward parents, not only encouraging parents (and their co-parents) to help each other but also moving non-parents (especially distant others of parents) to offer parents social support. Zhang and Wen (2021) designed and verified an effective way of encouraging people to help depressed patients: exposing people to patient testimonials (a narrative message with a first-person angle) that show that the cause of their condition is beyond the patient's control. After reading these testimonies, people identify more closely with the patients, feel more compassion toward them, and have a stronger intention to help them. On this ground, we can hypothesize that people could be more willing to help exhausted parents and provide social support if they can recognize from a testimony with a first-person viewpoint that today's society places demand on parents, putting them at risk for burnout (and that parents' suffering is therefore beyond the control of individual parents).

Next, today's Western parenting culture—in which parents predominantly adhere to a single parenting ideal—must change. Our studies uncovered a uniform parenting ideal (that seems to stem solely from "exclusively positive parenting") in Western countries; this is risky because such an ideal may not be suitable for every parent. Parents from different backgrounds may have different resources and risks; theoretically, disparate parenting ideals may work best for different backgrounds of parents. Unifying parenting ideals may put at risk parents whose resources cannot match the demands of that ideal. Society must encourage

²⁰ In addition to this, society must take measures that reduce parental risk consciousness; to this end, it is crucial that society share parental responsibility with parents, and the role of government is crucial in this regard, as explained below.

a diversity of parenting ideals, but how? Researchers should collect diverse ideas that are good for children and feasible for parents from different backgrounds. Based on this material, practitioners can raise awareness among movie/TV show/radio program makers and producers and invite them to disseminate different parenting ideals (e.g., create characters who portray diverse “equally good” ways of parenting). However, such communication is sensitive: this may be misconstrued as prescribing numerous ideals to parents, creating the perception that parents must follow them all. To circumvent that, such communication should clarify that parenting ideals are supplements that facilitate parenting decisions, not prescriptions that must be followed perfectly.

To do this, we may also use the following procedure to mitigate parents’ parenting perfectionism. Our socio-historical review suggested that parenting perfectionism may be fueled by a myth—parental determinism²¹. First, practitioners may seek ways to impede the further spread of misinformation (i.e., false or inaccurate information); one such way is to remind/prompt people to evaluate the accuracy and importance of the information they are exposed to (Pennycook et al., 2021). Such a method has been shown to reliably and consistently improve the quality of the news (i.e., make it more accurate), for instance, in posts about COVID-19 on social media (Pennycook & Rand, 2022). Moreover, practitioners must debunk parental determinism. The literature has compiled an effective communication approach for debunking misinformation; this approach consists of four components: (1) demonstrate a clear fact; (2) warn about the advent of the myth and make the myth explicit; (3) explain how it misleads; (4) finish the debunk by reinforcing the fact (Lewandowsky et al., 2020). Overall, many techniques exist that can be used to persuade people to jettison parental determinism and, thus, parenting perfectionism.

5.2.3 Public Health Communication Through Social Media

Public health communication usually relies on mass media to spread information (see Abrams & Maibach, 2008). Mass media refers to “[employing] technological devices of message dissemination that can reach audiences within a relatively short time, even simultaneously, make messages public (available to anyone), and extend the availability of messages in time and space” (Potter, 2012, p. 430). Mass media are particularly relevant when the information disseminated is about parenting. First, mass media emerge as a crucial source where parents learn parenting strategies (Haslam et al., 2017; Rheu et al., 2021). Second, media are shown as an essential platform for disseminating societal expectations about parenting that predispose parents to parental burnout symptoms (Lin, Mikolajczak, Douilliez, et al., 2023). Third, mass media are potent in inducing parenting behavior changes: for instance, they have been verified as an efficient platform to implement parenting interventions (see Corralejo & Domenech Rodríguez, 2018). One reason why current mass media are so efficient in disseminating information could be that social media—new mass

²¹ Parental determinism refers to the belief that “Parents’ actions and choices toward their children will irreversibly influence children’s development.”

media such as Facebook—are coming to the fore (Kümpel et al., 2015).

Social media has become a primary source through which people receive information. Currently, around half of Americans get news through social media at least sometimes (Southwell & White, 2022). A likely reason why information circulating through social media is so widespread and appealing is that social media allows people to be an active audience that can create information, interact with it (e.g., share their own opinions about information), and post information on a common online platform that further accelerates information dissemination. This feature makes social media a prime candidate for distributing scientific communication or public health communication: practitioners (e.g., researchers) can begin public health communication whenever they wish. Practitioners can also collaborate with (countless) opinion leaders on social media who exert significant influence within their network (Parau et al., 2017) to create and share information. This is crucial because previous studies have shown that people are more likely to seek information and gather news from opinion leaders (Bergström & Jervelycke Belfrage, 2018; Turcotte et al., 2015). In a nutshell, social media provides platforms that allow practitioners to disseminate public health/scientific communications, reaching countless individuals (Brossard & Scheufele, 2013).

Before concluding this proposal, it is important to acknowledge the challenges associated with implementing norm-change techniques: social pressure. Specifically, when parents adopt new norms, they may face isolation from peers who still adhere to the old norms (see van Kleef et al., 2015); this sense of isolation acts as a barrier to the adoption and the spread of new practices. To overcome this obstacle, it is necessary to promote empathy towards parents within society, creating a supportive social environment and reducing the likelihood of social isolation. In crafting that supporting environment, practitioners can utilize the previously discussed techniques for changing social norms related to social support. Additionally, it is crucial to enhance parents' self-efficacy, particularly in resisting social pressures; research on compulsive drinking has shown that individuals with higher self-efficacy in resisting peer pressure to drink demonstrate a reduction in binge drinking (Laghi et al., 2019). In strengthening parents' resistance, practitioners can adapt the psychoeducation program developed by Brianda, Roskam, Gross, and their colleagues (2020), which specifically addresses social pressure. Through the implementation of these strategies, our stepwise public health communication process can be facilitated with enhanced efficiency.

5.2.4 Improving Governmental Policies

The practical implications of our findings cannot disregard the significant role of governments, since they shape the ecosocial environment faced by Western parents through their attitudes and policies. Since the 1970s, many Western governments have embraced neoliberalism, encouraging strong property rights, free markets, and free trade (Amable, 2011; Harvey, 2005). These economic principles have been integrated into social policies, including those related to families, leading to the “marketization” of families, where families are subjected to market metrics. Concretely, this approach aims to “create model citizens who will not require rehabilitation or welfare support and to maximise children’s future market

potential” (Hartas, 2014, p. 127). For instance, in the UK, the government has implemented various policies aimed at improving outcomes for children and families, addressing issues such as children’s poverty, access to education and healthcare, and social mobility (e.g., Home Office, 1988). The government has recommended that parents adopt “positive parenting” practices (Churchill & Clarke, 2010) and has implemented measures aimed at preventing “things from going wrong in the first place” (Department for Education and Skills, 2004, p. 2).

Governments may implement policies aimed at “supporting” families, but such policies often require/expect individual parents to conform to pre-specified ideals of childrearing. This approach places the responsibility for children’s development on individual parents (Hartas, 2014). When children misbehave or encounter dangers, parents may be held accountable for not implementing the “correct” parenting techniques; for instance, they may even face fines for failing to bring about prescribed changes in their children’s behavior (e.g., a fine of up to £1,000 in the UK; Macvarish, 2014b, p. 85). Parents are terrified about not doing parenting right, and they then become overprotective and excessively cautious in preventing their children from any risks, further fueling parental risk consciousness (Hartas, 2014; M. K. Nelson, 2010; Nomaguchi & Fetto, 2018). This trend is problematic as it can contribute to burnout-inducing parenting culture characterized by, for instance, parenting perfectionism. To address this, the government should change its attitude about parenting and assume social responsibility for children’s development. This change could help reduce parents’ feelings of shouldering parental responsibility alone (e.g., Katz, 2001), alleviating their heightened risk consciousness.

A concrete change for governments is to improve their public policies and to shoulder responsibilities with parents; I suggest several starting points for this here. First, my thesis hypothesized that parents’ heightened risk consciousness about their children’s safety and future further erodes solidarity with parents and contributes to parenting perfectionism. To remedy this, governments can devote efforts to creating a safety net that makes the environment safer (and ensure that parents perceive it as such), thus reducing parental risk consciousness. Second, governments can also enact policies that strengthen social support, such as enhanced temporary/urgent childcare provision, flexible parental leave and financial support. Moreover, governments can also provide (at least) financial support for social initiatives (e.g., organizing social events, establishing self-help groups, setting up counseling services) aimed at strengthening parental solidarity. Third, governments should also enact legislation that curbs the spread of misinformation, especially the parental determinism message that fuels perfectionism. Finally, governments should collaborate with scholars in areas such as communication to ensure governmental recommendations on parenting are sufficiently diversified (feasible for parents from different backgrounds). Governments must offer parents resources (e.g., tips) to implement those recommendations and frame their recommendations as supplements rather than expectations/prescriptions (e.g., emphasize that parents have flexibility in choosing how to parent); this avoids imposing new “correct parenting” expectations on parents.

6. General Limitations and Future Directions

We have discussed the limitations of the studies presented in each empirical chapter of this thesis; in this section, I will discuss general limitations. First, I focus on the constraints that prevented me from achieving my research objective of this thesis: to examine factors from Western parenting culture to explain why Western parents are especially prone to parental burnout. Second, I focus on possible underlying mechanisms linking culture to parental burnout, a topic that I cannot thoroughly explore due to the limited training years of my PhD. These constitute the main topics of this section, which falls into three main subsections: (1) pitfalls underlying my approach to culture, (2) methodological concerns, and (3) unclear mechanisms linking culture to burnout. While these limitations may reduce the impact of this thesis in several aspects, these shortcomings and untold stories offer future research directions. As it stands, this thesis, with its vast (but lacking in depth) studies, forms a map that suggests fruitful avenues for future research, as seen below.

6.1 Cultural Concerns

The first and probably most obvious weakness is that our studies seldom empirically explore “cross-cultural difference”, although it constitutes a part of our research objective. This thesis sought to extract factors from Western parenting culture and examine their effects on parental burnout to find out why Western parents are prone to parental burnout. This objective consists of two cascading links: first, Western culture includes certain factors that other cultures emphasize less (so-called “cultural specificity”); second, these factors put parents at risk for burnout, from which it follows that they may explain the association of “being Western” with burnout. Chapters 6 and 7 fulfill this objective more fully: Chapter 6 examines the first cascading link via a cross-cultural study, showing that Western (versus non-Western) parents subscribe to ideal-parent beliefs aligning with “exclusively positive parenting”; Chapter 7 further shows that such beliefs may exhaust parents. This is not the case for Chapters 3-5: there, we only showed the association of parental burnout with social support and parenting (and child-oriented) perfectionism. Regarding the question of cultural specificity, we merely followed the discourse of the socio-historical review, hypothesizing that Western parenting culture is characterized by these factors.

This pitfall of Chapters 3-5 is crucial, because previous studies point to complicated cross-cultural differences in perfectionism and social support. Regarding perfectionism, studies have shown that while Westerners (e.g., European Americans) endorse adaptive perfectionism (i.e., dimensions that may relate to positive consequences), non-Westerners (e.g., Japanese) espouse maladaptive perfectionism (i.e., dimensions that may relate to negative consequences). Researchers have explained this difference as stemming from non-Westerners’ cultural tendency to higher levels of self-criticism and pessimism than Westerners (E. C. Chang et al., 2012). Such findings cast doubt on whether our finding that parenting perfectionism, especially its maladaptive dimension (i.e., perfectionistic concerns), exhausts parents can explain the heightened burnout vulnerability of Western parents; our inference that Western parents are prone to burnout because they favor maladaptive parenting

perfectionism is questionable. However, prior studies of cultural differences with regard to perfectionism focus mainly on perfectionism in general contexts; few studies have examined cultural differences with regard to parenting perfectionism. It is too early to reject our proposal, especially since the association of culture with individual characteristics may differ across contexts (see discussion in Roberts, 2007); future studies may find it fruitful to test our hypotheses with cross-cultural studies.

Regarding social support, based on the characteristics of individualism, that is, self-reliance and a focus on self-interest, we can expect that in Western societies, where individualism prevails (Cortois & Laermans, 2018), people are less willing to help each other, and thus perceive and receive less social support. However, empirical studies have demonstrated the opposite: Kim and colleagues (2008) demonstrated that some non-Westerners (e.g., some Asians) receive less social support and are less willing to seek help than Westerners (e.g., European Americans). Although such findings cast doubt on whether our finding on social support can be applied to explain the heightened burnout vulnerability of Western parents, it is too early to conclude. Recently, J. G. Miller and colleagues (2017) suggested that confounders might exist in Kim and colleagues' findings: some non-Western cultures (e.g., Japanese culture) may espouse exchange norms—need-based mutual responsiveness in social interaction—thereby reducing social support (to avoid damaging social relationships). Therefore, before our proposal can be rejected, future studies should control for the effects of such confounders and compare parental social support and burnout across Western and non-Western cultures.

Cross-cultural studies may not always require a large cross-national research design: researchers can conduct a “cross-cultural study” within a particular society that may have a diverse cultural system, such as Taiwan. Researchers have long identified Taiwanese culture as a “bicultural” system. Contemporary Taiwanese have endorsed both their heritage culture (i.e., traditional Chinese culture) and modern Western culture (L. Lu, 2003, 2008; Lu L. et al., 2012; L. Lu & Yang, 2006; also see Huang et al., 2004; Hong et al., 2016). Such diversity is also reflected in private life, including parenting. For example, L. Lu's (2009) analysis of a national probability sample of Taiwan showed significant individual differences in socialization values, highlighting the equal strength of the impact of Western and Chinese parenting culture. Adherence to either Western or Chinese parenting culture appears to vary according to parents' demographic factors, such as education: less educated parents adhere more to Chinese parenting culture. This finding may imply that parents' demographic factors, such as education levels, can serve as an indicator that differentiates between Taiwanese parents who espouse Western or Chinese parenting culture. Given this, future studies could explore “cultural differences” in social support or parenting perfectionism among parents with different demographic factors and explore their associations with Western and Chinese parenting cultural indicators (e.g., socialization values).

Second, related to this discussion, we must highlight another shortcoming of this thesis: we mostly studied culture as a phenomenon that varies only between countries (talking in terms, for example, of the culture of Western countries). However, culture as a society-level

construct can vary according to various environmental factors: not only country but also educational level, ethnicity, religion, and so on (Keller, 2020). Countries may have different cultures (K.-S. Yang, 2018); but within countries, different social classes (indicated by environmental factors) may have different subcultures, and in many cases, it is the country's dominant social class that shapes that country's culture (Keller, 2018). In this thesis, however, we rarely consider the subcultures of each country arising from other factors such as social class (as an exception, Chapter 6 involves educational level in its analyses). Although it makes analysis simpler, this perspective focusing only on cultures of countries provides a limited understanding of culture. Future studies should broaden our knowledge by studying subcultures in a given country (Raval, 2023); for instance, they could analyze the intersection between numerous environmental conditions (e.g., through latent profile analysis), and discuss their cultural implications and their effect on parental burnout.

Third, this thesis speculates that modernization and the corollary social changes are shaping current Western parenting culture and predisposing parents to burnout; yet we have limited empirical evidence for this proposal. Future studies could collect a cross-national dataset of parents' self-reported data on parenting perfectionism, social support, challenging ideal-parent beliefs, and parental burnout, and then combine it with existing index scores of economies, democracy, and globalization—which can indicate modernization and the corollary social changes—for each nation (see Santos et al., 2017). Multilevel models could be adopted to test whether these social features predict parental burnout across countries. Furthermore, it would be possible to test our proposals, for example to establish whether the burnout-related parenting culture highlighted in this thesis—endorsing parenting perfectionism and limited social support—may mediate that association, and whether demanding ideal-parent beliefs prevailing in countries may exacerbate the association of the socioecological changes with parental burnout. This analysis on ideal-parent beliefs stems from our proposal that modernization and the corollary social changes lead society to expect “correct parenting” from parents, and “correct parenting” is particularly dangerous when unrealistic goals are set.

Such research on “modernization” is crucial. According to (traditional) modernization theory, socioecological changes, such as the expansion of the economy, can facilitate “modernization,” causing traditional (or agrarian) societies to evolve into modern (or industrial) societies (see Inglehart & Welzel, 2007). People there will adopt modern practices, including more individualistic (see Greenfield, 2009), more rational, less spiritual, and less communal attitudes. This theory prophesies that as countries become more affluent, their culture may become uniformly “developed”—like many Western countries (see Marx, 1973). However, as Inglehart and Baker (2000, p. 22) revealed, “What we witness with the development of the global economy is not increasing uniformity, in the form of a universalization of Western culture, but rather the continuation of civilizational diversity through the active reinvention and reincorporation of non-Western civilizational patterns.” With this in mind, we may suspect that our proposal of modernization as a cause of parental burnout does not necessarily hold true in other cultures (thus revising my proposal) because their indigenous cultural phenomena may buffer these detrimental effects of modernization.

Future research may find it useful to test our proposal regarding modernization with cross-cultural studies.

Fourth and finally, this thesis disregarded a common cultural phenomenon in real life: cultures may interact (see Knein et al., 2020) to influence parents. This thesis suggests that cultural characteristics that may predict burnout include parents perceiving the erosion of their social support, parents endorsing parental perfectionism, and a society spreading ideal-parent beliefs that embed challenging standards. In our empirical chapters, we examined these factors independently as contributing to parental burnout. However, in real life, these cultural characteristics may influence parents interactively. For example, adherence to an unrealistic parenting ideal may only bother parents if they also cultivate a perfectionistic attitude and force themselves to follow the ideals perfectly. In other words, parenting perfectionism may serve as an indicator of the degree to which unrealistic parenting ideals parents want to pursue; parenting perfectionism may “activate” the harmful effects of unrealistic parenting ideals and lead to parental burnout. Moreover, these detrimental effects may be mitigated if parents have adequate resources and support from their social network to meet the expectations. In this sense, social support appears to buffer the harmful effects of the interaction between unrealistic parenting ideals and parenting perfectionism on parental burnout. Future studies could usefully examine the interplay between these cultural interactions.

6.2 Methodological Concerns

There are numerous methodological concerns that may compromise the justification of the studies in this thesis²². To begin with, all of the studies are cross-sectional and not longitudinal, which leaves them subject to the shortcomings of the former design. One of these is that we cannot determine the direction of the association. For instance, first, it is no

²² The following methodological concerns regarding causality are particularly significant in this thesis. Throughout the empirical chapters, terms such as risk factors (or vulnerability factors) and resource factors (or protective factors) were frequently used, along with phrases like “put parents at risk of parental burnout,” to interpret the results. These terminologies were primarily employed based on theoretical considerations—the BR² theory of parental burnout (Mikolajczak & Roskam, 2018) and its extension (see our Theoretical Implications). These theoretical considerations suggest that factors (labeled as “risk factors”) such as a higher level of parenting perfectionism may positively predict parental burnout symptoms, while factors (referred to as “resource factors”) like better emotional competence may predict fewer burnout symptoms and buffer the association of other factors with parental burnout. Accordingly, in the discussion of our results, we categorized the variables we studied, including parenting perfectionism, child-oriented perfectionism, social support, emotional display rules, and emotional competence, as risk/resource factors. However, it is important to note that these terminologies may imply causal relationships between factors and parental burnout. Such causal interpretations cannot be derived from the empirical chapters of this thesis due to the cross-sectional and correlational research design employed in all the studies. This design inherently limits the ability to draw causal inferences. Given this limitation, our empirical chapters only suggest that the variables we studied are correlates (and potential risk or resource factors) with parental burnout, rather than establishing them as definitive risk or resource factors.

more or less likely that perfectionism predicts burnout symptoms (as suggested in Chapters 3-4) than it is that burnout predisposes parents to perfectionistic thoughts. A maladjustment-perfectionism association has been shown in the literature on depression, where Asseraf and Vaillancourt (2015) demonstrated that depression predisposes patients to believe that others have excessively high expectations of them and to feel obliged to meet those standards.

Secondly, despite Chapter 5 suggesting that limited social support predicts burnout symptoms, parental burnout may also reduce parents' perceived availability of social support. Supporting this, studies on depression have found that depressive symptoms predict decreases in perceived peer support (e.g., Stice et al., 2004). This suggestion is likely; parental burnout has been linked to high cortisol levels (Brianda, Roskam, & Mikolajczak, 2020), which often co-occur with increased inflammation (e.g., in patients with depression; Amasi-Hartoonian et al., 2022) that may further cause a feeling of social disconnection (Eisenberger et al., 2010). These alternative possibilities regarding social support and parenting perfectionism have not been demonstrated in the parental burnout literature, but further longitudinal research is necessary to verify the effect directions reported in this dissertation.

Next, we relied only on correlational rather than experimental studies; without the random assignment of experimental studies, we cannot completely rule out the influence of confounding variables and determine causal relations. For example, traits such as narcissism appear likely to confound our findings in Chapters 3-5. On the one hand, we might expect narcissistic parents to be more sensitive to stress (Coleman et al., 2019) and, thus, more vulnerable to burnout (Schwarzkopf et al., 2016; yet, for an elaborated exploration see Grover & Furnham, 2021). On the other, research has shown that narcissists may promote an image of their perfection and defensively conceal their imperfections (M. M. Smith et al., 2016) and perceive less support from others (particularly for those with antagonistic narcissism; Gąsiorowska et al., 2021). Another trait, neuroticism, may confound the findings of Chapter 7: previous research showed that neurotic employees perceive stronger emotional display rules in their organization (rules on suppressing negative emotions; Austin et al., 2008) and experience more burnout symptoms (Goddard et al., 2004). Given these possibilities, stronger research designs, including experimental designs, are needed: these could include the intervention methods proposed in Practical Implications and test whether these methods can reduce burnout by lowering individual risk factors through random assignment.

More broadly, a plethora of confounders of our findings may exist in gene variations. For instance, studies have shown that the A allele of rs53576 gene (rs53576A) is associated with a higher risk of depression (A/A/A/G versus G/G; Saphire-Bernstein et al., 2011) and worse social functioning (e.g., a decreased level of sociality; A/A versus G/G; Tost et al., 2010). Given this, we may suspect that our findings of limited social support predicting more burnout (Chapter 5) stem from parents in our sample carrying rs53576A. We can of course control for such effects by experimental studies; but we can also investigate the role of genes more seriously, as gene variation may moderate the association of culture with psychological phenomena (Sasaki & Kim, 2017) such as burnout. For instance, studies have shown that people carrying the 7/2-R allele of the DRD4 gene are more susceptible to cultural influences

(i.e., exhibit culturally dominant social orientations; Kitayama et al., 2014); we can expect Western parents with that gene to be susceptible to their burnout-inducing culture (e.g., emotional display rules). Although such findings are still at an early stage (see J. G. Lu et al., 2023), future molecular genetics studies may find it fruitful or interesting to explore such possibilities.

Third, this thesis presents studies in the empirical chapters in which mothers were overrepresented among the participants: mothers make up approximately 70% of all participants in the five empirical chapters. The overrepresentation of mothers is a common and serious pitfall in parenting studies (Lamb, 2010). This concern is particularly acute in parental burnout studies. Roskam and Mikolajczak (2020a) recently offered robust evidence showing that fathers suffer from burnout more readily than mothers once they encounter parenting demands, although it is mothers who experience more burnout symptoms. The authors suggested that due to gender role expectations, fathers are less involved in parenting, so they may be less exposed to parenting demands, and thus less likely to develop burnout symptoms. This discussion has given rise to criticism of the generalizability of the findings from our mother-dominated studies. Regarding this concern, we have statistically considered the potential effects of gender on our results, but it has shown that gender appears unlikely to confound our findings. Still, it could be that fathers in our dataset are too limited to offer sufficient information to demonstrate the specificity regarding fathers.

Based on extant studies, we can speculate on how gender might influence our findings: to begin with, there might be minimal gender differences in parenting culture/norm. For instance, Chapter 6 found no significant distinctions in the differences of ideal father/mother beliefs. Similarly, studies showed that contemporary fathers endorse many aspects of the intensive mothering norm, such as investing significant time and emotional efforts and being guided by experts (Palladino, 2014). However, men and women may approach the culture/norm with different dispositions, thereby moderating the association between the culture and burnout. According to social role theory, widely held gender role beliefs rely on social and self-regulation, as well as hormonal regulation, to guide sex-differentiated cognition and behavior (Eagly & Wood, 2012). Perhaps because of that, systematic review studies have shown that in parenting, men (versus women) tend to exhibit more authoritarian, restrictive, coercive, and harsh behaviors (Yaffe, 2020). As opposed to mothers, these tendencies in fathers' parenting practices are inconsistent with the ideals they hold, particularly creating a discrepancy that might exacerbate the impact of the culture on fathers' well-being; future studies might find it fruitful to validate this hypothesis with a gender-balanced sample.

Finally, an alternative explanation for answering our research question—why Western parents are more prone to parental burnout—lies in a methodological consideration. Concretely, non-Western (versus Western) parents might report fewer burnout symptoms because the gold standard PBA—which was developed based on Western parents' testimonies (Hubert & Aujoulat, 2018; Roskam et al., 2018)—may be less able to capture the burnout experience of non-Western parents. Depression literature illustrates this possibility:

it has been demonstrated that, while Western (e.g., American) patients experience depression in mental symptoms, depressed Asian (e.g., Taiwanese) patients often appear to express their distress through physical symptoms (Kleinman, 1977; a further discussion see Ryder et al., 2008). Such a cultural difference could also be the case for parental burnout: parents may experience physical symptoms (cf. somatization) rather than mental symptoms, making the PBA less able to capture the whole picture of their experience (and thus creating the impression that there are fewer burnout parents). For future research, it may be helpful to develop a culturally sensitive measure (Krys et al., 2022) of parental burnout and implement it to re-compare the parental burnout prevalence worldwide.

6.3 Unfinished Story

Because of the limited years spent on my thesis, I cannot devote myself to exploring mechanisms underlying the association of Western parenting culture with burnout. Yet, such investigations are crucial: exploring the mechanisms allows us to understand how and why a given culture, a society-level construct, may affect individual parents. After all, the cultural influence on individuals is probabilistic rather than deterministic (J. G. Lu et al., 2023); individuals may internalize different aspects of a given culture to varying degrees, leading to heterogeneity within the culture (Kitayama & Yu, 2020). In this regard, individual parents may or may not embrace the current Western parenting culture and thus become exhausted by it. To complement this, I will list several possible mechanisms that may account for such individual differences in the association between culture and parental burnout. These revolve around issues such as (1) why individual Western parents may embrace a parenting culture that may exhaust them; and (2) how the burnout-related factors suggested as Western cultural characteristics (i.e., limited social support, endorsing parenting perfectionism, and emotional display rules) deplete parents' resources so that parents become exhausted.

To begin with, if the proposition of this thesis that Western parenting culture may induce parental burnout is true, that raises an important question: why would any parent cling to this uncomfortable cultural package? One possibility is that the society strictly controls parents, forcing them to follow the existing cultural practice with its harsh moral judgment (see Millum, 2018). For instance, parents receive expectations about child rearing from various sources, such as the mass media or their partner (Lin, Mikolajczak, Douilliez, et al., 2023). These expectations may be framed in moral terms, persuading parents to comply with those practices in order to be morally responsible for their children's welfare (for an example, see Dobrin, 2014). If parents fail to fulfill the expectations, they may be viewed as less than ideal, incompetent, and unethical. Such an evaluative outcome may give rise to negative moral emotions in the parents such as guilt or shame, punishing them and thereby impelling them to comply with existing cultural patterns (Eaton et al., 2016; Schultz et al., 2008; van Kleef et al., 2015). Future studies may find it fruitful to validate such a moral mechanism.

Next, once parents accept the culture, why might the burnout-related factors we suggested as Western cultural characteristics (i.e., limited social support, endorsing parenting perfectionism, and challenging ideal-parent beliefs) predict parental burnout? Firstly,

regarding social support, Gugliandolo and colleagues (2021) showed that more social support satisfies parents' basic needs and may predict better parental well-being, such as less perceived parenting stress and fewer depression symptoms. Given this, we may expect that limited social support can predict parental burnout by frustrating parents' basic needs, although empirical studies have not yet been conducted to verify this hypothesis. Secondly, regarding parenting perfectionism, recent studies have shown that perfectionistic parents may tend to use maladaptive emotion regulation strategies—like expressive suppression—in regulating their emotions during interactions with children, making them prone to parental burnout (Lin & Szczygieł, 2022b). Similarly, concerning child-oriented perfectionism, we expect that the very same mechanism for parenting perfectionism will apply: that is, child-oriented perfectionistic parents may be inclined to use maladaptive emotion regulation strategies when interacting with their children, ultimately predisposing themselves to burnout. However, this hypothesis needs further investigation.

Prior literature on perfectionism suggests two more mechanisms that might explain the association of parenting perfectionism or child-oriented perfectionism with parental burnout. The first mechanism is the diathesis–stress model of perfectionism (Hewitt & Flett, 2002; Molnar et al., 2018): on the one hand, perfectionism may create stress or increase the likelihood of exposure to stressors, for instance, by predisposing individuals to appraise experiences as stressful or by instigating more relationship conflicts (e.g., Kleszewski & Otto, 2020), which can eventually lead to burnout (Song et al., 2023). Accordingly, stressors might mediate the association between parenting/child-oriented perfectionism and parental burnout. On the other hand, parenting/child-oriented perfectionism can interact with stressors to predict parental burnout. Literatures has identified that perfectionists who encounter more stressors are more vulnerable to distress (Dunkley et al., 2016). Perfectionists, particularly those endorsing perfectionistic concerns, are highly reactive to stressors (e.g., Flett et al., 2016; Rice et al., 2015), perhaps because their perfectionism predisposes them to catastrophically interpret stressors (e.g., Graham et al., 2010). However, these hypotheses have yet to be tested for parenting or child-oriented perfectionism, suggesting a need for future research.

The second mechanism is the perfectionism social disconnection model (Hewitt et al., 2017). According to this model, perfectionism, specifically other-oriented (e.g., child-oriented) and socially prescribed perfectionism (i.e., perfectionistic concerns), develops due to prolonged asynchrony in early interactions with parents and the consequences of asynchrony, such as a fragile self and low self-esteem. These experiences contribute to the development of perfectionism as an inflexible interpersonal style aimed at repairing a defective self by addressing long-standing unmet needs for acceptance and self-worth and by achieving a sense of connection through presumed perfection (Ko et al., 2019). This inflexible interpersonal style predisposes people to interpersonal problems, such as feeling anger and suspiciousness directed toward others and perceiving evaluative fear and vigilance from others. These problems eventually create social disconnection and contribute to emotional distress that can escalate into diagnosable disorders (M. M. Smith et al., 2020). If this mechanism operates in parenting/child-oriented perfectionism, we may expect that

parenting/child-oriented perfectionism predicts parental burnout through social disconnection, such as compromising the quality of parent-child interaction and or low self-esteem thus adding more burdens on parents. However, no studies have explored this mechanism for perfectionism in parenting so far, indicating a need for future studies.

Finally, why does following emotional display rules seem like a positive parenting ideal but, as shown in Chapter 7, turn out to be strenuous and exhausting? The emotional goal pursuit model offers a likely explanation (Mauss & Tamir, 2014; Tamir, 2021). According to this model, emotional display rules prescribe emotion goals that parents are motivated to achieve. Such motivation may stem from societal expectations that convince parents that if they achieve the goal, this will subsequently lead to benefits for their children, such as improving their developmental outcomes (Hays, 1996). Yet, pursuing the parental emotion goal can be challenging; since parenting is a dynamic context where parents often feel negative emotions (Kerr, Rasmussen, et al., 2021), it is impossible for parents to always fulfill the goal perfectly, and they will sometimes feel anger, or sadness. These failures, once they occur, can frustrate parents; for those who fully buy into the purpose of concealing negative parental emotions, they can be particularly frustrating and ultimately exhausting (Mauss et al., 2011). While this mechanism is likely, it awaits empirical evidence.

General Conclusion

General Conclusion

Why are Western parents especially vulnerable to parental burnout compared to non-Western parents? Roskam and colleagues (2017) suggest that the socio-historical roots of job burnout can be explored in order to look for possible risk factors for parental burnout. The resulting literature review first leads us to modernization and the corollary social changes; these changes cause the growth of individualism and the demise of tradition (Giddens, 1994; Greenfield, 2016; Inglehart & Welzel, 2007). As a result, for the first time in history, individuals take the whole responsibility for themselves and cannot attribute any consequences to traditions (Giddens, 1999); more than ever, parents are now alert to any potential risks to their children (M. K. Nelson, 2010). Heightened risk consciousness eventually erodes solidarity with parents, allows parenting perfectionism to prevail, and provokes societies to expect parents to practice “correct parenting” (Furedi, 2002); what makes these expectations dangerous is that they may involve challenging and exhausting parenting standards (Dupont et al., 2022). Overall, this review identifies three potential resource-depleting risk factors that characterize Western burnout-related parenting culture.

Along with previous studies, our empirical chapters offer preliminary evidence for this account. Roskam, Aguiar, et al. (2021) were the first to show that individualism explains Western parents’ greater vulnerability to parental burnout. Yet individualism is only one small piece of the puzzle. Our deductive research approach aligns with the review of the socio-historical roots of parental burnout and verifies the association of parental burnout with factors we identified as Western cultural characteristics. Specifically, we showed that when parents endorse parenting perfectionism (and child-oriented perfectionism) and have limited social support, they experience more parental burnout symptoms. Moreover, we also found that Western societies are now promoting a pattern of ideal-parent beliefs that align with exclusively positive parenting; such beliefs may generate emotional display rules for parents that predict parental burnout. Overall, in our examination of why Western parents are particularly prone to parental burnout, this thesis sheds light on the cultural influence on parental burnout, suggesting parental burnout as a “cultural notion/culture-bound syndrome (cultural concept of distress)” entrenched in the modern Western ecosocial milieu (Kaiser & Jo Weaver, 2019).

As demonstrated, this thesis emphasizes the downside of contemporary Western parenting culture: the burden it places on parents. Before concluding this thesis, I must acknowledge that this culture also has positive consequences/aspects. One notable example is the condemnation and prohibition of child maltreatment within Western parenting culture (see Daly, 2007; Parton, 2005); such a norm/standard serves as a preventive measure against child maltreatment (the harmful effects of child maltreatment; see Cicchetti, 2016). Another example is that while some practices of positive parenting (i.e., adhering to emotional display rules; Chapter 7) put parents at risk of burnout, other practices, such as fostering strong parent-child relationships and practicing parental authoritativeness, improve child

development outcomes (Chen et al., 2019). In sum, despite the demanding challenges imposed on parents, contemporary Western parenting culture has exhibited its positive influence on children. Given this, rather than completely rejecting Western parenting culture, this thesis aims to reconsider the culture, acknowledging that it can exhaust parents, and calling for future research on ways to reconcile parents' interests with children's well-being, such as rejecting aspects of the culture that exhaust parents without demonstrating beneficial effects on children.

Parenting is rewarding—so rewarding that some researchers even place it at the top of the pyramid of human needs (Kenrick et al., 2010). As rewarding as it may be, parenting can also be so demanding that it leads to painful experiences such as burnout. Indeed, “pain pays the income of each precious thing” (Shakespeare, 2002, p. 262): these words of William Shakespeare describe the situation of many of today's Western parents. Parents are under unprecedented pressure to provide the best care to their precious children. However, just as the darkest night begets dawn, suffering may not last forever, nor is it necessarily insurmountable; help may increase the likelihood of victory. To that end, efforts must be made, both by those in parents' immediate network (e.g., friends and relatives) and by more distant parties such as the government, to intervene to prevent a syndrome that may have its roots in culture. I therefore wish to reiterate the call made by Brianda (2021): it is time for society to pay attention to the burden placed on parents and to care for parents.

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PART V Appendix

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Appendix A Basic Personal Values and Parental Burnout: A Brief Report

Basic Personal Values and Parental Burnout: A Brief Report

Abstract

Recent evidence has shown that Western parents are five times more vulnerable to developing parental burnout than parents in other parts of the world. It has also been found that this augmented susceptibility is explained by the group tendency of individualism cultural value that prevails in Western societies. Still, whether this relation observed at the group mean level across countries can be generalised to the association of personal value with parental burnout across individuals has not yet been explored. In order to address this question, the current study collected a sample of 643 Polish parents and assessed their report of value priorities and parental burnout. The results demonstrated that individual-level values indeed predict susceptibility to parental burnout. Specifically, parents are more susceptible to parental burnout when prioritising values that emphasise power and achievement, whereas prioritising benevolence protects parents from parental burnout. Associations between parents' gender, personal values, and parental burnout were also examined. Consistent with previous studies, fathers reported fewer parental burnout symptoms compared to mothers. However, gender differences in parental burnout were not mediated by personal values, nor did parents' gender moderate the effect of personal values on burnout. In sum, together with previous results obtained at the society level, our finding points out the role of values in predicting parental burnout. A possible future direction of research was discussed: examining the affective mechanism (e.g., parental regulation of emotions) underlying the relationship between personal values and parental burnout.

Reference

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1. Introduction

Parental burnout (PB) is a chronic stress-related disorder experienced in the parental role, which encompasses experiences of exhaustion in the parenting role, emotional distancing from children, loss of parental fulfilment, and contrast between the previous and current parental self (Roskam et al., 2018). Due to its global prevalence and alarmingly harmful consequences, PB has been identified as one of the most worrying conditions and growing public health issues (Gruber et al., 2020; Mikolajczak et al., 2021). Specifically, recent studies showed that PB would induce a dysregulation in the hypothalamic-pituitary-adrenal axis (Brianda, Roskam, & Mikolajczak, 2020), leading to enhanced cortisol levels that might eventually harm parents' both physical (e.g., diabetes, hypertension, fractures; Chiodini et al., 2019) and mental health (Holsboer & Ising, 2010; e.g., suicidal and escape ideations; Mikolajczak et al., 2019). Although PB has been observed worldwide, it mainly affects Western parents. In Roskam et al.'s (2021) study that examined the relationship between the mean levels of PB and group tendency of individualism-collectivism cultural value (Hofstede, 2001) across countries, Western parents are five times more likely to develop this syndrome compared to non-Western parents. This enhanced susceptibility of Western parents to PB is related to higher group tendency of individualism (lower tendency of collectivism) cultural value in the West, even with economic inequalities across countries and individual and family characteristics controlled for.

Despite Roskam et al. (2021) providing essential insights into the cultural values as determinants of PB at the group mean level, we cannot ascertain whether the relationships can be directly generalised to the association of PB with personal cultural values across individuals. The present study was thus designed to fill this gap by exploring whether and how personal cultural values (i.e., individualistic and collectivistic cultural values) contribute to PB. In order to assess those, we followed Schwartz's (1992) Theory of Basic Human Values (Sagiv et al., 2017; Sortheix & Schwartz, 2017), which postulates that personal values are cognitive representations of motivational goals, reflecting what individuals consider crucial and worthy (Schwartz, 1992). According to their subjective importance, ten basic universal values are ordered in hierarchies (i.e., priorities), which further influences an individual's thoughts, behaviours, and well-being (Bojanowska & Kaczmarek, 2021). Researchers further suggest that personal cultural values may be manifested by these ten personal value priorities (Schwartz, 1994; Suizzo, 2007). Specifically, individualism will be manifested in attaching more importance to five personal values: power, achievement, hedonism, stimulation, self-direction. In contrast, collectivism will be manifested in prioritising the other five personal values: universalism, benevolence, tradition, conformity, and security (also see Oishi et al., 1998).

Built on both Schwartz's model and Roskam et al.'s (2021) findings, it is reasonable to expect that personal values related to individualism positively predict PB, whereas personal values related to collectivism negatively predict PB; such effects are beyond and over sociodemographic factors. Nevertheless, as indicated in previous studies (see Kağıtçıbaşı,

1996, 2005; Tamis-LeMonda et al., 2008 for a related discussion), individuals may prioritise different components (e.g., nuanced personal cultural values) of individualistic-collectivistic cultural value and thus have different personal adjustment. We, therefore, assume that differentiating individualistic-collectivistic cultural values into finer personal cultural values, as we will do (five personal values for individualistic and collectivistic cultural values, respectively), might uncover subtle effects of values on parental burnout. However, given a dearth of research examining the relationship between personal cultural values and well-being in the parenting context to formulate nuanced hypotheses, we chose to explore our research question in an exploratory manner.

2. Method

2.1 Participants

Data were collected from a sample of 643 Polish parents (60.2% mothers) who live with at least one child in the same household. They were, on average, around 38 years old ($M = 37.65$ years, $SD = 7.08$). Of all the parents participating in the study, 81.2% raised their child/children with the father/mother of the child(ren), 10.1% were single parents, 5.8% raised their child(ren) with a partner who was not the father/mother of their child(ren) (i.e., step-family), and 2.6% lived in a multi-generation family. Two parents (0.3%) answered “other” in relation to their family type.

Overall, the participants had from 1 to 10 children living with them ($M = 1.79$; $SD = 0.91$) and 0 to 8 biological children ($M = 1.77$; $SD = 0.84$). Of all the families, 43.7% raised one child, 40% two children, 12% three children, 3.1% four children, and 1.3% more than four children. Among them, 3.6% reported having a child with disabilities. The age of the oldest (or only) child ranged from 0 to 36 years ($M = 10.08$, $SD = 6.35$), and the age of the youngest child ranged from 0 to 28 years ($M = 6.63$, $SD = 5.27$). The participants ticked “0” if the child was younger than one year. The participants declared spending on average five hours per day ($M = 5.47$, $SD = 3.14$) in direct contact with their child(ren), excluding bedtime and simply sharing the same household.

Of all the respondents, 5.4% reported that they had completed elementary school, 20.4% were high school graduates, 23.4% had a bachelor's degree, 17.1% had a university degree, and 33.4% had completed postgraduate studies. Two parents (0.3%) did not report their education level. Most study participants (88%) reported being professionally active (full-time or part-time employment). Most of the study participants lived in a city (44.5%) or town (38.7%), while a minority lived in a rural area (16.8%). The participants also defined the profile of their neighbourhood: 72.9% reported that they lived in an average neighbourhood, 22.9% in an affluent one, and 4.2% in a disadvantaged neighbourhood. All participants lived in Poland and were native Polish.

2.2 Procedure

The study was posted online on Qualtrics. The participants were recruited through advertising on social media (Facebook, parenting websites), the SONA research pool (an online research pool consisting of students who wish to participate in research studies as part of their educational experience) and word of mouth. Only those who had (at least) one child living at home were eligible to participate in the study.

Participants were asked to complete an online questionnaire upon giving informed consent, which allowed them to withdraw at any stage without having to justify their withdrawal. They were also assured that the data collected would be kept confidential and used for research purposes. The participants were volunteers, and no remuneration was offered for participation. Data were collected from mid-October 2020 to mid-February 2021.

2.3 Measures

Below we have provided basic information about the measures used in the study. A comprehensive description of the instruments (for assessing personal values and parental burnout) can be found in the Online Supplemental Material (OSM).

2.3.1 Sociodemographic Factors

Participants reported on gender, age, educational level, number of children in the household, number of biological children, age of the oldest child, age of the youngest child, family type (two parents, single parent, step-family, multi-generational family, other), employment status (paid professional activity: yes/no), having a child with disabilities (yes/no), hours spent with the child(ren) per day, profile of the neighbourhood (disadvantaged, average, prosperous), place of residence (village, town, city).

2.3.2 Personal Values

To measure what participants valued in their lives according to Schwartz's ten values model, we used the Polish version of the Twenty Item Values Inventory questionnaire (TwIVI). The original version of TwIVI was developed by Sandy et al. (2017), who, based on rigorous psychometric methods, selected 20 items from the Portrait of Values Questionnaire (PVQ; Schwartz & Bardi, 2001). Following Sandy et al.'s (2017) item selection, we derived the corresponding items from the well-validated Polish version of PVQ (Cieciuch, 2013). Using the current dataset, we applied both network analysis and multidimensional scaling to test the validity of the Polish version of TwIVI, and the results corroborated its sound structural and constructed validity (see S1. Psychometric Performances of Measures in the Online Supplemental Material for more detail).

TwIVI is a brief measure of values composed of 20 short verbal portraits of individuals, two portraits for each of the ten values. Each description portrays the person's goals and aspirations, beginning or ending with the words: 'He/she thinks', 'He/she believes', or 'This

is important to him/her'. The descriptions for each value are as follows: conformity ('S/he believes s/he should always show respect to his/her parents and to older people. It is important to him/her to be obedient'.), tradition ('Religious belief is important to him/her. S/he tries hard to do what his/her religion requires'.), benevolence ('It is very important to him/her to help the people around him/her. S/he wants to care for their well-being'.), universalism ('S/he thinks it is important that every person in the world be treated equally. S/he believes everyone should have equal opportunities in life'.), self-direction ('S/he thinks it is important to be interested in things. S/he likes to be curious and to try to understand all sorts of things'.), stimulation ('S/he likes to take risks. S/he is always looking for adventures'.), hedonism ('S/he seeks every chance s/he can to have fun. It is important to him/her to do things that give him/her pleasure'.), achievement ('Getting ahead in life is important to him/her. S/he strives to do better than others'.), power ('S/he always wants to be the one who makes the decisions. S/he likes to be the leader'.) and security ('It is important to him/her that things are organised and clean. S/he really does not like things to be a mess'.). Participants were asked to rate on a scale from 1 ('not at all like me') to 6 ('very much like me') how similar or dissimilar they are to the portrayed person.

To demonstrate the reliability of the measurement, we applied two approaches. First, as only two items represented each value dimension, we analysed the correlations between the items. The results showed that items within the same dimension were all significantly correlated ($p < .05$), with most correlation coefficients being around .30–.60 (with security, whose correlation coefficient was .10, forming an exception). Second, we analysed Cronbach's alpha and Spearman-Brown statistics for each value score. Most Cronbach's alpha and Spearman-Brown statistics for each value score were around .52–.81 (with security, whose Cronbach's alpha and Spearman-Brown statistic was both .17, forming another exception).

2.3.3 Parental Burnout

Parental burnout was assessed with the Parental Burnout Assessment (PBA, Roskam et al., 2018; Polish version by Szczygieł et al., 2020). The PBA is a 23-item questionnaire (e.g., 'I feel completely run down by my role as a parent'). Items are rated on 7-point Likert scales: from 0 (*never*) to 6 (*every day*). Items were summed to form a global score. The Cronbach's α of the global score in the current sample was .97.

2.4 Analysis Strategy

Following Schwartz's (1992) suggestion, we centred each value score by subtracting the mean of all twenty value items for each individual before our analyses. A two-step hierarchical regression was conducted to examine the unique effects of personal values on PB, as well as to test whether such effects extend beyond sociodemographic factors. In the first step, sociodemographic factors were simultaneously entered for predicting PB. In a second step, personal values were introduced into the model. As mentioned earlier, all ten personal values can be related to PB, and therefore, they should all be included in the model to examine their unique effects. However, due to the centring procedure performed for each

value, a linear dependence between them was likely, preventing us from entering all centred values simultaneously into the same regression model (see Schwartz, 1992 for detailed explanation). To address this issue, we would conduct bivariate correlation analyses of personal values and PB to include only those values found to be significantly associated with PB in the second step of the regression model. All analyses were performed using SPSS 25.

3. Result

3.1 Preliminary Analyses

Table A.1 shows descriptive statistics and correlations between study variables. Benevolence ($r(641) = -.21, p = .000$), universalism ($r(641) = -.13, p = .001$), conformity ($r(641) = -.09, p = .023$) and tradition ($r(641) = -.10, p = .015$) correlated negatively with PB, whereas achievement ($r(641) = .29, p = .000$) and power ($r(641) = .30, p = .000$) correlated positively. These results allow sole focus on examining unique effects of these six values in the following regression analyses and further check whether these effects are still significant after sociodemographic factors are controlled for.

3.2 Hierarchical Regression Analyses

As depicted in Table A.2, the full model explains 23% of the variance in PB. Among the variables entered in the first step, being a mother emerged as the strongest predictor of PB, beyond the effects of all other sociodemographic factors. The model with all sociodemographic factors as predictors explained 12.2% of PB altogether ($p = .000$). In the second step, when six values were introduced into the regression equation, only benevolence, achievement, and power were significant in predicting PB (see step 2 in Table A.2). The additional explanatory power of values for PB beyond sociodemographic factors was 13.0% (see Supplementary Analysis in the OSM for more discussion).

4. Discussion

Does the way parents prioritise their values put them at risk for PB, as the results of Roskam et al. (2021) suggest? Indeed, our findings demonstrated that personal values contribute to PB. Nevertheless, our results further clarified the findings of Roskam et al. (2021) by showing which particular dimensions of personal cultural values measured at the individual level contribute to PB (Oishi et al., 1998; Schwartz, 1994; Suizzo, 2007). Specifically, parents experienced more PB symptoms when they prioritised power (emphasising social status or dominance over people and resources) and achievement (emphasising personal success by demonstrating competence according to prevailing cultural standards) values of individualism. In contrast, parents had fewer symptoms of PB when they prioritised benevolence (emphasising preservation and enhancement of the welfare of people

with whom parents are in frequent contact) of the collectivism.

Besides, our findings are consistent with prior research (e.g., Roskam et al., 2021; Szczygieł et al., 2020) on whether and how sociodemographic factors, including parents' gender and age, employment status, neighbourhood profile, family type, and time spent with children predicted PB. As in previous studies, parents' gender appeared to be the most salient of these factors (i.e., the highest standardized beta in predicting PB), with mothers reporting more PB symptoms compared to fathers. Such a powerful predictive effect suggests that more attention should be paid to gender differences while examining the nature and antecedents of PB (for discussion, see Roskam & Mikolajczak, 2020). We conducted two sets of supplementary analyses to contribute to this endeavour. First, given that previous studies consistently demonstrate gender differences in value priorities (Schwartz & Rubel, 2005), we examined whether gender differences in personal value priorities explain gender differences in PB. Second, considering findings indicating that fathers tend to be more susceptible to PB antecedents than mothers (Roskam & Mikolajczak, 2020), we examined whether parents' gender moderates the predictive effects of personal values on PB. The results showed neither a mediating role of personal values in the relationship between parents' gender and PB, nor a moderating role of parents' gender in the relationship between personal values and PB (for a detailed discussion, see S2.2 Gender, Personal Values, and Parental Burnout of Supplementary Analysis in the OSM).

Despite the cross-sectional and solely self-report research design limiting the causality interpretation, our finding provides important directions for future research. One fruitful research direction may be examining the underlying mechanism between personal values and PB. The affective mechanism, or specifically parental emotion regulation, seems to be a prominent candidate. The rationale for such reasoning could base on recent studies demonstrating that perfectionism in the parenting domain (associated with a greater emphasis on one's performance and achievements and more minor on concern for others; Zacharopoulos et al., 2021) intensifies the use of expressive suppression (a highly resource-consuming emotion regulation strategy), which ultimately exacerbates PB (Lin et al., 2021; Lin & Szczygieł, 2022). Second, our findings further provide implications for personal values research. Sorthaix & Schwartz (2017) imply no direct relationship (or weaker, compared to other values) between subjective well-being and values that emphasise social growth (e.g., benevolence) and personal self-protection (e.g., achievement and power). Our results proved contrary to Sorthaix and Schwartz's (2017) by showing that only these values are significant in predicting PB, which suggests that the effects of personal values on well-being may depend on the context (e.g., parenting) in which they are examined.

Table A.1*Descriptive Statistics and Correlation Among Parental Burnout and Personal Values*

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10
1 Parental Burnout	31.34	26.47										
2 Conformity	0.21	1.00	-.09*									
3 Tradition	-0.60	1.06	-.10*	.38**								
4 Benevolence	0.78	0.90	-.21**	.04	.02							
5 Universalism	0.69	0.94	-.13**	-.03	-.03	.40**						
6 Self-Direction	0.54	0.82	-.06	-.40**	-.33**	.01	.03					
7 Simulation	-0.14	0.87	-.04	-.48**	-.37**	-.27**	-.24**	.33**				
8 Hedonism	-0.59	0.96	.05	-.33**	-.31**	-.33**	-.32**	-.02	.36**			
9 Achievement	-0.23	0.95	.29**	-.26**	-.32**	-.38**	-.35**	-.06	.11**	.15**		
10 Power	-0.65	1.00	.30**	-.26**	-.26**	-.32**	-.37**	-.13**	.01	.05	.33**	
11 Security	-0.01	0.90	-.03	.18**	.04	-.14**	-.05	-.20**	-.29**	-.22**	-.23**	-.10**

Note. Each value score was centred, as suggested by Schwartz (1992). Correlations among variables are shown below the diagonal. * $p \leq .05$. ** $p \leq .01$.

Table A.2*Hierarchical Regression Coefficients*

Variables	<i>b</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI of <i>b</i>	
						<i>LL</i>	<i>UL</i>
Step 1: Sociodemographic Factors							
Gender (father)	-9.98	2.22	-.19	-4.50	.000	-14.33	-5.62
Age	-0.63	0.23	-.17	-2.76	.006	-1.07	-0.18
Educational level	-0.12	0.27	-.02	-0.42	.672	-0.65	0.42
Employment (No Employment)	9.02	3.42	.11	2.64	.009	2.30	15.75
Number of children in household	2.08	1.23	.07	1.70	.091	-0.33	4.49
Age of the oldest child	-0.34	0.26	-.08	-1.30	.193	-0.85	0.17
Child with disabilities	-3.16	5.50	-.02	-0.57	.566	-13.97	7.65
Hours spent with children	-1.29	0.38	-.15	-3.35	.001	-2.04	-0.53
Residence Place: Village	-1.51	2.96	-.02	-0.51	.612	-7.32	4.31
Residence Place: City	2.82	2.23	.05	1.27	.206	-1.55	7.19
Neighbourhood: Disadvantaged	12.20	5.14	.09	2.38	.018	2.11	22.28
Neighbourhood: Prosperous	2.64	2.44	.04	1.08	.281	-2.16	7.43
Single parent family	6.51	3.43	.07	1.90	.058	-0.24	13.25
Step-family	2.34	4.39	.02	0.53	.594	-6.28	10.96
Multi-generational family	1.08	6.39	.01	0.17	.866	-11.47	13.63
Other family types	46.24	18.92	.10	2.45	.015	9.10	83.39
F (16, 622) = 5.40***; $\Delta R^2 = .12$; $\Delta R^2_{\text{adjusted}} = .10$							
Step 2: Personal Values							
Conformity	1.07	1.04	.04	1.02	.307	-0.98	3.11
Tradition	0.63	1.04	.03	0.60	.546	-1.41	2.66
Benevolence	-3.14	1.20	-.11	-2.62	.009	-5.49	-0.79
Universalism	1.17	1.20	.04	0.98	.328	-1.18	3.52
Achievement	5.98	1.21	.21	4.95	.000	3.61	8.36
Power	5.71	1.11	.22	5.16	.000	3.53	7.88
F (6, 616) = 17.84***; $\Delta R^2 = .13$; $\Delta R^2_{\text{adjusted}} = .13$							

^a Gender, employment, having a child with disabilities, job, having a child with disabilities are binary variables, whereas the neighbourhood profile, place of residence, and type of family are multi-categorical variables. We thus recorded all levels of these variables by dummy coding before introducing them into the regression model. For binary variables, mother paid professional activity and a child with disabilities were set as reference groups (= 0), and the other groups were recoded into 1. For multi-categorical variables, all levels of these variables were entered into the regression model except for the level with the highest frequency (i.e., average neighbourhood, live in a city, and family type is two-parents) to avoid multi-collinearity.

*** $p \leq .001$.

5. Supplementary Material

5.1 Psychometric Performances of Measures

5.1.1 Parental Burnout

Parental burnout was assessed with the Polish version of the Parental Burnout Assessment (PBA, Roskam et al., 2018; Polish version by Szczygieł et al., 2020). The PBA is a 23-item questionnaire consisting of four subscales: exhaustion in one's parental role (9 items; e.g., 'I feel completely run down by my role as a parent'), contrast with previous parental self (6 items; e.g., 'I am no longer proud of myself as a parent'), feelings of being fed up with one's parental role (5 items; e.g., 'I cannot stand my role as father/mother any more'), and emotional distancing from one's child(ren) (3 items; e.g., 'I do what I am supposed to do for my child(ren), but nothing more'). Items are rated on a 7-point Likert scale: 0 (*never*), 1 (*a few times a year or less*), 2 (*once a month or less*), 3 (*a few times a month*), 4 (*once a week*), 5 (*a few times a week*), 6 (*every day*). In this study, the global PBA score was used. Scores were calculated by summing up the items. A detailed psychometric analysis regarding the Polish version of the PBA could be seen in Szczygieł et al. (2020).

5.1.2 Personal Values

To measure what participants valued in their lives according to Schwartz's ten values model, we used the Polish version of the Twenty Item Values Inventory questionnaire (TwIVI). The original version of TwIVI was developed by Sandy et al. (2017), who, based on rigorous psychometric methods, selected 20 items from the Portrait of Values Questionnaire (PVQ; Schwartz & Bardi, 2001). Following Sandy et al.'s (2017) item selection, we derived the corresponding items from the well-validated Polish version of PVQ (Cieciuch, 2013).

In TwIVI, each description portrays the person's goals and aspirations, beginning or ending with the words: 'He/she thinks', 'He/she believes', or 'This is important to him/her'. The descriptions for each value are as follows: conformity ('S/he believes s/he should always show respect to his/her parents and to older people. It is important to him/her to be obedient'), tradition ('Religious belief is important to him/her. S/he tries hard to do what his/her religion requires'), benevolence ('It is very important to him/her to help the people around him/her. S/he wants to care for their well-being'), universalism ('S/he thinks it is important that every person in the world be treated equally. S/he believes everyone should have equal opportunities in life'), self-direction ('S/he thinks it is important to be interested in things. S/he likes to be curious and to try to understand all sorts of things'), stimulation ('S/he likes to take risks. S/he is always looking for adventures'), hedonism ('S/he seeks every chance s/he can to have fun. It is important to him/her to do things that give him/her pleasure'), achievement ('Getting ahead in life is important to him/her. S/he strives to do better than others'), power ('S/he always wants to be the one who makes the decisions. S/he likes to be the leader') and security ('It is important to him/her that things are organised and clean. S/he

really does not like things to be a mess'). Participants were asked to rate on the scale: 1 (*not at all like me*), 2 (*not like me*), 3 (*a little like me*), 4 (*somewhat like me*), 5 (*like me*) to 6 (*very much like me*) how similar or dissimilar they are to the person being portrayed.

Using the current dataset, we applied both network analysis and multidimensional scaling to evaluate the validity of the Polish version of TwIVI.

5.1.2.1 Construct Validity: The Network Approach.

Although a commonly used method to examine the structural validity of measurement is confirmatory factor analysis (CFA), we chose not to use it, and this is due to the following reasons. First and most importantly, the traditional CFA cannot assess the circular structure of personal values. According to Schwartz and colleagues, the ten values were motivationally distinct. Some values are mutually compatible because they reflect goals attained simultaneously through the same actions or attitudes. Other values contradict each other because actions that support the attainment of one value may impede the attainment of the other. Values are thus assumed to be structured in a circular continuum, organised according to the motivations (including self-transcendence, openness to change, self-enhancement, and conservation) they express; adjacent values express compatible motivations, and opposing values express conflicting motivations (see Fig. 1 in Sagiv et al., 2017). This circular structure of values would induce model misspecification and reduce model fit while applying CFA (see discussion in Davidov et al., 2008; Schwartz et al., 2017). Second, when applying CFA, a model should be both locally (by measurement models; latent variables indicated by observed variables) and globally identified (by structural models; models describing the association between latent variables). However, there are only two items for each latent variable—value in TwIVI; a measurement model with two items for a latent factor is not identified by itself (i.e., degree of freedom will be less than 0 in each measurement model). It may result in distortions of model fitting results and thus interpretation when the measurement models *per se* cannot be identified.

Considering the foregoing considerations, we first chose to examine the construct validity of the Polish version of TwIVI's using a network approach. The network approach views psychological constructs (i.e., personal values) arising directly from the interactions between their components (i.e., items and scales). Because it directly represents an interaction between components visually, unlike traditional CFA, the network approach is not constrained by the nature of the component's arrangement (i.e., circular structure of values). Specifically, this approach can visually depict such interrelations in a spatial plot in which components of psychological constructs are represented as nodes and their interactions represented as edges (Contreras et al., 2019; Schmittmann et al., 2013). We performed two sets of network analyses with the same procedure. The first analysis was performed on the twenty items of TwIVI, whereas the second was conducted on the ten value scores of TwIVI.

Regarding procedures of network analyses, we first performed a nonparanormal transformation on personal values (both items and value scores respectively) through the R package *huge* to ensure the data are multivariate normal distributed and therefore meet the assumptions for use with the network analyses (Epskamp et al., 2018). Next, we estimated

the undirected network by using the graphical Gaussian model (GGM). Namely, we aim to estimate a model in which input variables (items or value scores) were depicted as nodes as well as connected by undirected edges, and the edge thickness (i.e., edge weights) reflects the magnitude of the regularised partial correlations between the nodes.

In order to do so, a graphical LASSO (Least Absolute Shrinkage and Selection Operator) algorithm was used. This algorithm serves two goals. First, regularised partial correlations between pairs of nodes were computed to control spurious associations (edges) attributable to the influence of other variables (nodes). Second, a sparse model is estimated in that minor associations were shrunk to zero, and only the strong-enough edges were retained. R package *qgraph* (Epskamp et al., 2012) was used for the graphical LASSO estimation combined with the Extended Bayesian Information Criterion (EBIC) model selection procedure. This procedure estimated 100 networks with varying degrees of sparsity, and the model with the lowest EBIC is selected, given $\gamma = 0.5$ (suggested in Epskamp et al., 2018; Foygel & Drton, 2011), which controls the trade-off between incorporating false-positive edges and eliminating genuine edges. Next, we implemented the spin glass algorithm (Reichardt & Bornholdt, 2006) to detect communities (i.e., whether some nodes within the community have stronger positive interrelations and less negative interrelations whereas they have weaker positive interrelations and stronger negative interrelations to nodes outside the community) in the above GGM models by the `spin.glass.community` function ($\gamma = 1$, start temperature = 1, stop temperature = .01, cooling factor = .99, spins = 10) of the R package *igraph* (Csardi & Nepusz, 2006).

First, the result regarding analyses on items was presented in Figure SA.1, which indeed demonstrated that items belonging to the same score value and compatible score values are closer and have a stronger association (i.e., thicker edges) with each other than with other items belonging to opposite values (see note in Figure SA.1 for more detail). Second, as denoted by different colours, we detected four communities in the network models of items (Figure SA.1) and score values (Figure SA.2). After referencing Schwartz's model, we found that the composition of the communities perfectly corresponded to Schwartz's model. Specifically, the four detected communities respectively correspond to the values arising from the four motivational sources of self-transcendence (denoted as black in Figure SA.1 and red in Figure SA.2), openness to change (denoted as green in Figure SA.1 and Figure SA.2), self-enhancement (denoted as blue in Figure SA.1 and Figure SA.2), and conservation (denoted as red in Figure SA.1 and black in Figure SA.2).

5.1.2.2 Construct Validity: The Multidimensional Scaling Approach.

Second, following Schwartz's (2011) suggestion, we used multidimensional scaling to ensure the construct validity of TwIVI. Multidimensional scaling provided graphic representations of the spatial relations among the 20 items as well as ten value scores, allowing us to assess whether values could be differentiated and ordered in a circle arrangement as Schwartz theorised. Considering Schwartz's theory specified the structure of relations among values, we performed a theory-based, confirmatory, multidimensional

analysis by specifying a starting configuration that assigns every item to its place in the theorised circular structure of values. The starting configuration for each value was derived from the matrix provided in Bilsky et al. (2011). The multidimensional scaling Proxscal program in SPSS 25 was then implemented with ordinal proximity transformations, Euclidian distance measures, and Z-score transformations of values. We first conducted these procedures on 20 items, and the result is presented in Figure SA.3. The goodness-of-fit measures (Stress 1 = .119, Dispersion Accounted For = .986, Tucker's Coefficient of Congruence = .992) indicates that Schwartz's theorised model represents the underlying covariance matrix (between items) well. The same procedures were also performed on ten value scores, and the result is presented in Figure SA.4. The goodness-of-fit measures (Stress 1 = .053, Dispersion Accounted For = .997, Tucker's Coefficient of Congruence = .999) also indicates that Schwartz's theorised model represents the underlying covariance matrix (between value scores) well.

In sum, we performed different methods to assess the structural and construct validity of TwIVI, and all findings corroborated a sound structurally and constructed validity of TwIVI used in Poland.

5.2 Supplementary Analysis

5.2.1 Personal Values and Parental Burnout without Sociodemographic Factors as Covariates

It is plausible that introducing covariates—sociodemographic factors into regression models may lead to erroneous conclusions due to the confounding or suppressing effects. Considering this, we removed the sociodemographic factors from the regression model. We assessed how six personal values (uncovered by correlation analyses that correlate significantly to parental burnout) predict parental burnout directly. The results (see Table SA.1) showed that excluding the control variable did not significantly change the relationship between personal values and parental burnout we reported in the manuscript. Specifically, among the main effects of six values that we enrolled in, only benevolence, achievement, and power were significant or marginally significant ($p < .06$) in predicting parental burnout (see step 2 in Table A.2). The conclusion remains the same. The explanatory power of values for PB was 14.0%, comparable to the additional exploratory power of values (13.0%) beyond sociodemographic factors that we reported in the manuscript. It implicates that the inclusion of sociodemographic factors has minimal effect on the association of personal values with parental burnout.

5.2.2 Gender, Personal Values, and Parental Burnout

Recent studies consistently demonstrated that parents' gender plays a crucial role in both prevalence and vulnerability to the antecedents of parental burnout (Roskam & Mikolajczak, 2020). On the one hand, mothers reported more parental burnout symptoms than fathers; on the other hand, compared to mothers, fathers may have higher vulnerability to the antecedents to parental burnout. Therefore, it is crucial to examine what role parent gender may play in

the relationship between personal values and parental burnout. We explored this research question as follows. First, considering that previous studies have consistently shown gender differences in value priorities (compared to women, men consistently attribute more importance to power, stimulation, hedonism, achievement, and self-direction values as well as less importance to benevolence and universalism values; Schwartz & Rubel, 2005), we aimed to investigate whether parents' gender differences in personal value priorities explain gender differences in parental burnout levels. Second, we explored whether parents' gender would moderate the effects of personal values on parental burnout.

Following Schwartz's (1992) suggestion, we centred all value scores by subtracting the mean of all value items for each individual before all of our analyses described below.

5.2.2.1 Indirect Effects of Gender on Parental Burnout Through Personal Values.

We followed Baron and Kenny's (1986) method to inspect personal values as potential mediators between gender and parental burnout. Specifically, correlation analyses were performed between gender, personal values, and parental burnout (see Figure SA.5). Personal values could act as potential mediators if they were associated with both gender and parental burnout. As shown in Table SA.2, benevolence, universalism, and achievement were such candidates. In order to ensure whether these values could explain gender differences in parental burnout, the indirect effect analysis was performed with IBM SPSS 25.0 and PROCESS macro 3.5 (Hayes, 2018). Specifically, to calculate the indirect effect, one should analyse a model in which both gender (path c' in Figure SA.5; direct effect) and values (path b_1 - b_3 in Figure SA.5) were regressed on parental burnout, and a model in which gender was regressed on values (path a_1 - a_3 in Figure SA.5). We used the product-of-coefficients with the bootstrapping method (producing 95% bias-corrected confidence intervals) to evaluate the significance of the indirect effects from 5,000 resamples of the data.

The product-of-coefficients with the bootstrapping method revealed significant positive indirect effects of gender on parental burnout through benevolence ($\beta = .05$, $b = 1.24$, bootstrapped SE = 0.51, bootstrapped 95% CI of $b = [0.37, 2.38]$) and achievement ($\beta = .05$, $b = 1.41$, bootstrapped SE = 0.59, bootstrapped 95% CI of $b = [0.35, 2.67]$). As demonstrated in Table SA.3, fathers, compared to mothers, attribute more importance to achievement and less to benevolence, both of which actually predicted more parental burnout. The indirect effect of gender on parental burnout through universalism ($\beta = .01$, $b = 0.26$, bootstrapped SE = 0.43, bootstrapped 95% CI of $b = [-0.59, 1.16]$) was insignificant. After the effects of these three values controlled for, the residual direct effect of gender remains significant, showing that fathers had lower parental burnout ($\beta = -.50$, $b = -13.18$, SE = 2.01, 95% CI of $b = [-17.13, -9.23]$). The residual direct effect of gender was even larger than the regression model in which personal values were excluded ($\beta = -.19$, $b = -10.26$, SE = 2.10, 95% CI of $b = [-14.38, -6.15]$). These findings suggest that, instead of being mediators, benevolence and achievement should be seen as suppressors (MacKinnon et al., 2000) that made the magnitude of the relationship between gender and parental burnout larger. In other words, personal values explained the way fathers might have higher parental burnout; however, why fathers generally have lower parental burnout cannot be explained by personal values.

These findings and implication remain similar even when other sociodemographic factors were controlled for (see Table SA.4). Specifically, the result revealed significant positive indirect effects of gender on parental burnout through benevolence ($\beta = .04$, $b = 1.07$, bootstrapped SE = 0.49, bootstrapped 95% CI of $b = [0.25, 2.19]$) and achievement ($\beta = .05$, $b = 1.22$, bootstrapped SE = 0.57, bootstrapped 95% CI of $b = [0.16, 2.43]$). The indirect effect of gender on parental burnout through universalism ($\beta = .01$, $b = 0.22$, bootstrapped SE = 0.44, bootstrapped 95% CI of $b = [-0.61, 1.12]$) was insignificant. After the effects of these three values controlled for, the residual direct effect of gender remains significant, showing that fathers had lower parental burnout ($\beta = -.47$, $b = -12.49$, SE = 2.13, 95% CI of $b = [-16.67, -8.30]$). The residual direct effect of gender was even larger than the regression model in which personal values were excluded ($\beta = -.18$, $b = -9.98$, SE = 2.22, 95% CI of $b = [-14.33, -5.62]$).

5.2.2.2 Parents' Gender Moderates the Effects of Personal Values on Parental Burnout.

We next examined whether gender could moderate the effect of personal values on parental burnout. For this purpose, a two-step hierarchical regression was conducted. In the first step, both gender and personal values were introduced into the model. All ten personal values can be related to PB, and therefore, they should all be included in the model to examine their unique effects. However, due to the centring procedure performed for each value, a linear dependence between them was likely, preventing us from entering all centred values simultaneously into the same regression model (see Schwartz, 1992 for detailed explanation). To address this issue, we conducted bivariate correlation analyses of personal values and parental burnout to include only those values found to be significantly associated with PB in the first step of the regression model.

Results found that only benevolence, universalism, conformity, tradition, achievement and power significantly correlated with parental burnout (as shown in Table SA.2). Together with gender, these six personal values were entered into the first step of the regression model. The two-way multiplicative terms between gender and these six personal values were then simultaneously entered in the second step. Personal values were further mean-centred before creating interaction terms to avoid multi-collinearity. Results revealed that none of the interaction terms entered significantly predicted parental burnout (see Table SA.5). This suggested that gender might not influence the effects of personal values on parental burnout. These findings and implications remain similar even when other sociodemographic factors were further controlled for (see Table SA.6).

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Table SA.1

Personal Values Predict Parental Burnout (Without Sociodemographic Factors Controlled for)

$R^2 = .14^{***}$	b	SE	β	t	p	95% CI of b	
						LL	UL
Conformity	0.59	1.09	0.02	0.54	.587	-1.54	2.73
Tradition	0.85	1.06	0.03	0.80	.423	-1.23	2.93
Benevolence	-2.39	1.25	-0.08	-1.92	.056	-4.85	0.06
Universalism	2.02	1.23	0.07	1.64	.102	-0.40	4.43
Achievement	6.06	1.25	0.22	4.87	.000	3.61	8.50
Power	6.50	1.15	0.25	5.66	.000	4.25	8.76
F (6, 636) = 17.02 ^{***} ; $R^2 = .14$; $R^2_{\text{adjusted}} = .13$							

Table SA.2

Spearman's Rank Correlation Among Gender, Personal Values, and Parental Burnout

Variables	1	2	3	4	5	6	7	8	9	10	11
1 Gender											
2 Parental Burnout	-.178**										
3 Conformity	.025	-.127**									
4 Tradition	.006	-.085*	.381**								
5 Benevolence	-.151**	-.162**	.054	-.025							
6 Universalism	-.169**	-.104**	-.043	-.058	.407**						
7 Self-Direction	-.01	-.031	-.386**	-.312**	.021	.046					
8 Simulation	.108**	-.034	-.464**	-.340**	-.261**	-.234**	.319**				
9 Hedonism	.056	.069	-.309**	-.292**	-.327**	-.325**	-.04	.323**			
10 Achievement	.109**	.223**	-.290**	-.307**	-.360**	-.362**	-.036	.142**	.197**		
11 Power	.039	.240**	-.292**	-.245**	-.318**	-.375**	-.105**	.062	.086*	.344**	
12 Security	.008	-.048	.184**	.056	-.120**	-.049	-.190**	-.309**	-.221**	-.238**	-.102**

Note. As regards gender, fathers were coded as “1” whereas mothers were coded as “0.” Each value score was centered, as suggested by Schwartz (1992).

* $p \leq .05$. ** $p \leq .01$.

Table SA.3*Regression Models for Calculating Indirect Effects*

Regression Models	<i>b</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI of <i>b</i>	
						<i>LL</i>	<i>UL</i>
Outcome: Parental burnout							
Gender (father)	-10.26	2.10	-.19	-4.90	.000	-14.38	-6.15
F (1, 641) = 23.98***; $R^2 = .04$; $R^2_{\text{adjusted}} = .03$							
Outcome: Benovalence							
Gender (father)	-0.29	0.07	-.33	-4.09	.000	-0.43	-0.15
F (1, 641) = 16.70***; $R^2 = .03$; $R^2_{\text{adjusted}} = .02$							
Outcome: Universalism							
Gender (father)	-0.33	0.07	-.35	-4.46	.000	-0.48	-0.19
F (1, 641) = 19.88***; $R^2 = .03$; $R^2_{\text{adjusted}} = .03$							
Outcome: Achievement							
Gender (father)	0.20	0.08	.21	2.68	.008	0.05	0.35
F (1, 641) = 7.17**; $R^2 = .01$; $R^2_{\text{adjusted}} = .01$							
Outcome: Parental burnout							
Gender (father)	-13.18	2.01	-.50	-6.55	.000	-17.13	-9.23
Benovalence	-4.25	1.22	-.14	-3.47	.000	-6.65	-1.85
Universalism	-0.77	1.16	-.03	-0.67	.505	-3.04	1.50
Achievement	6.95	1.13	.25	6.14	.000	4.72	9.17
F (4, 638) = 28.46***; $R^2 = .15$; $R^2_{\text{adjusted}} = .15$							

Note. *b* = unstandardized regression coefficient. β = standardized regression coefficient. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

*** $p \leq .001$.

Table SA.4

Regression Models for Calculating Indirect Effects (with Sociodemographic Factors Controlled for)

Regression Models	<i>b</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI of <i>b</i>	
						<i>LL</i>	<i>UL</i>
Outcome: Parental burnout							
Gender (father)	-9.98	2.22	-.19	-4.50	.000	-14.33	-5.62
Age	-0.63	0.23	-.17	-2.76	.006	-1.07	-0.18
Educational level	-0.12	0.27	-.02	-0.42	.672	-0.65	0.42
Employment (No							
Employment)	9.02	3.42	.11	2.64	.009	2.30	15.75
Number of children in the							
household	2.08	1.23	.07	1.70	.091	-0.33	4.49
Age of the oldest child	-0.34	0.26	-.08	-1.30	.193	-0.85	0.17
Child with disabilities	-3.16	5.50	-.02	-0.57	.566	-13.97	7.65
Hours spent with children	-1.29	0.38	-.15	-3.35	.001	-2.04	-0.53
Residence Place: Village	-1.51	2.96	-.02	-0.51	.612	-7.32	4.31
Residence Place: City	2.82	2.23	.05	1.27	.206	-1.55	7.19
Neighborhood:							
Disadvantaged	12.20	5.14	.09	2.38	.018	2.11	22.28
Neighborhood: Prosperous	2.64	2.44	.04	1.08	.281	-2.16	7.43
Single parent family	6.51	3.43	.07	1.90	.058	-0.24	13.25
Step-family	2.34	4.39	.02	0.53	.594	-6.28	10.96
Multi-generational family	1.08	6.39	.01	0.17	.866	-11.47	13.63
Other family types		18.9					
	46.24	2	.10	2.45	.015	9.10	83.39
F (16, 622) = 5.40***; $R^2 = .12$; $R^2_{\text{adjusted}} = .10$							
Outcome: Benovalence							
Gender (father)	-0.26	0.08	-.29	-3.28	.001	-0.41	-0.10
Age	0.01	0.01	.07	1.04	.297	-0.01	0.02
Educational level	0.02	0.01	.07	1.58	.114	0.00	0.03
Employment (No							
Employment)	-0.10	0.12	-.04	-0.82	.413	-0.34	0.14
Number of children in the							
household	0.00	0.04	.00	-0.05	.964	-0.09	0.08
Age of the oldest child	-0.01	0.01	-.09	-1.46	.146	-0.03	0.00
Child with disabilities	-0.04	0.20	-.01	-0.18	.854	-0.42	0.35
Hours spent with children	0.00	0.01	.01	0.30	.767	-0.02	0.03
Residence Place: Village	0.13	0.11	.05	1.21	.226	-0.08	0.33
Residence Place: City	-0.04	0.08	-.02	-0.50	.618	-0.19	0.12
Neighborhood:							
Disadvantaged	-0.21	0.18	-.05	-1.16	.246	-0.57	0.15
Neighborhood: Prosperous	-0.09	0.09	-.04	-1.07	.285	-0.26	0.08
Single parent family	0.14	0.12	.05	1.15	.250	-0.10	0.38
Step-family	-0.11	0.16	-.03	-0.70	.486	-0.41	0.20
Multi-generational family	-0.08	0.23	-.01	-0.36	.715	-0.53	0.36
Other family types	-1.21	0.67	-.08	-1.81	.072	-2.53	0.11

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F (16, 622) = 2.07** ; R ² = .05; R ² _{adjusted} = .03							
Regression Models	<i>b</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI of <i>b</i>	
						<i>LL</i>	<i>UL</i>
Outcome: Universalism							
Gender (father)	-0.34	0.08	-.36	-4.15	.000	-0.50	-0.18
Age	0.01	0.01	.08	1.29	.199	-0.01	0.03
Educational level	0.02	0.01	.07	1.69	.092	0.00	0.04
Employment (No Employment)	0.14	0.13	.05	1.12	.263	-0.11	0.39
Number of children in the household	0.01	0.05	.01	0.20	.844	-0.08	0.10
Age of the oldest child	-0.01	0.01	-.04	-0.57	.568	-0.02	0.01
Child with disabilities	-0.10	0.20	-.02	-0.52	.604	-0.50	0.29
Hours spent with children	-0.01	0.01	-.03	-0.62	.533	-0.04	0.02
Residence Place: Village	-0.14	0.11	-.06	-1.30	.194	-0.35	0.07
Residence Place: City	-0.08	0.08	-.04	-0.96	.337	-0.24	0.08
Neighborhood:							
Disadvantaged	-0.43	0.19	-.09	-2.31	.022	-0.80	-0.06
Neighborhood: Prosperous	-0.17	0.09	-.07	-1.86	.063	-0.34	0.01
Single parent family	-0.11	0.13	-.04	-0.90	.366	-0.36	0.13
Step-family	-0.26	0.16	-.06	-1.60	.111	-0.57	0.06
Multi-generational family	-0.08	0.23	-.01	-0.36	.719	-0.54	0.38
Other family types	-1.89	0.69	-.11	-2.73	.006	-3.25	-0.53
F (16, 622) = 2.94*** ; R ² = .07; R ² _{adjusted} = .05							
Regression Models	<i>b</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI of <i>b</i>	
						<i>LL</i>	<i>UL</i>
Outcome: Achievement							
Gender (father)	0.19	0.08	.20	2.30	.022	0.03	0.35
Age	-0.02	0.01	-.12	-1.88	.061	-0.03	0.00
Educational level	-0.01	0.01	-.03	-0.62	.535	-0.03	0.01
Employment (No Employment)	-0.06	0.13	-.02	-0.51	.609	-0.31	0.18
Number of children in the household	0.02	0.05	.02	0.36	.720	-0.07	0.11
Age of the oldest child	0.01	0.01	.05	0.71	.481	-0.01	0.03
Child with disabilities	-0.31	0.20	-.06	-1.51	.131	-0.71	0.09
Hours spent with children	-0.02	0.01	-.05	-1.13	.257	-0.04	0.01
Residence Place: Village	0.12	0.11	.05	1.10	.273	-0.09	0.34
Residence Place: City	0.19	0.08	.10	2.36	.019	0.03	0.36
Neighborhood:							
Disadvantaged	0.68	0.19	.14	3.59	.000	0.31	1.05
Neighborhood: Prosperous	-0.05	0.09	-.02	-0.58	.559	-0.23	0.12
Single parent family	-0.03	0.13	-.01	-0.20	.838	-0.28	0.22
Step-family	0.07	0.16	.02	0.41	.679	-0.25	0.39
Multi-generational family	0.25	0.24	.04	1.05	.292	-0.21	0.71
Other family types	1.75	0.70	.10	2.50	.013	0.38	3.12

F (16, 622) = 2.75***; $R^2 = .07$; $R^2_{\text{adjusted}} = .04$

Regression Models	<i>b</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI of <i>b</i>	
						<i>LL</i>	<i>UL</i>
Outcome: Parental burnout							
Gender (father)	-						
	12.49	2.13	-.47	-5.86	.000	-16.67	-8.30
Benovalence	-4.15	1.20	-.14	-3.45	.001	-6.51	-1.79
Universalism	-0.65	1.14	-.02	-0.57	.570	-2.90	1.60
Achievement	6.47	1.13	.23	5.75	.000	4.26	8.68
Age	-0.48	0.22	-.13	-2.24	.025	-0.91	-0.06
Educational level	0.00	0.26	.00	0.00	.998	-0.51	0.51
Employment (No							
Employment)	9.12	3.25	.11	2.81	.005	2.75	15.49
Number of children in the							
household	1.97	1.16	.07	1.70	.090	-0.31	4.25
Age of the oldest child	-0.44	0.25	-.11	-1.79	.073	-0.92	0.04
Child with disabilities	-1.39	5.22	-.01	-0.27	.790	-11.63	8.86
Hours spent with children	-1.17	0.36	-.14	-3.22	.001	-1.89	-0.46
Residence Place: Village	-1.85	2.82	-.03	-0.66	.512	-7.37	3.68
Residence Place: City	1.35	2.11	.03	0.64	.523	-2.80	5.50
Neighborhood:							
Disadvantaged	6.63	4.91	.05	1.35	.177	-3.01	16.28
Neighborhood: Prosperous	2.48	2.32	.04	1.07	.284	-2.07	7.04
Single parent family	7.18	3.25	.08	2.21	.028	0.79	13.57
Step-family	1.29	4.16	.01	0.31	.756	-6.87	9.46
Multi-generational family	-0.93	6.04	-.01	-0.15	.878	-12.79	10.94
Other family types		18.0					
	28.68	3	.06	1.59	.112	-6.73	64.08
F (19, 619) = 9.16***; $R^2 = .22$; $R^2_{\text{adjusted}} = .19$							

F (19, 619) = 9.16***; $R^2 = .22$; $R^2_{\text{adjusted}} = .19$

Note. *b* = unstandardized regression coefficient. β = standardized regression coefficient. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

*** $p \leq .001$.

Table SA.5

Regression Models for Testing Interaction Between Gender and Personal Values (without Sociodemographic Factors Controlled for)

Variables	<i>b</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI of <i>b</i>	
						<i>LL</i>	<i>UL</i>
Step 1: Personal Values							
Gender	-12.67	1.97	-.23	-6.43	.000	-16.54	-8.80
Conformity	0.78	1.06	.03	0.74	.460	-1.30	2.86
Tradition	0.82	1.09	.03	0.76	.449	-1.31	2.95
Benevolence	-2.82	1.10	-.11	-2.58	.010	-4.97	-0.67
Universalism	1.06	1.13	.04	0.94	.348	-1.16	3.29
Achievement	5.97	1.14	.23	5.22	.000	3.73	8.22
Power	6.18	1.11	.23	5.55	.000	3.99	8.36
F (7, 635) = 21.41***; $\Delta R^2 = .19$; $\Delta R^2_{\text{adjusted}} = .18$							
Step 2: Interaction Terms Between Gender and Personal Values							
Gender $\times$ Conformity	-3.76	2.25	-.09	-1.67	.095	-8.19	0.66
Gender $\times$ Tradition	3.79	2.21	.09	1.72	.087	-0.55	8.13
Gender $\times$ Benevolence	0.20	2.31	.01	0.09	.930	-4.33	4.74
Gender $\times$ Universalism	1.94	2.31	.05	0.84	.402	-2.60	6.47
Gender $\times$ Achievement	1.03	2.36	.03	0.44	.663	-3.61	5.68
Gender $\times$ Power	-2.10	2.31	-.05	-0.91	.363	-6.64	2.44
F (6, 629) = 1.19; $\Delta R^2 = .01$; $\Delta R^2_{\text{adjusted}} = .00$							

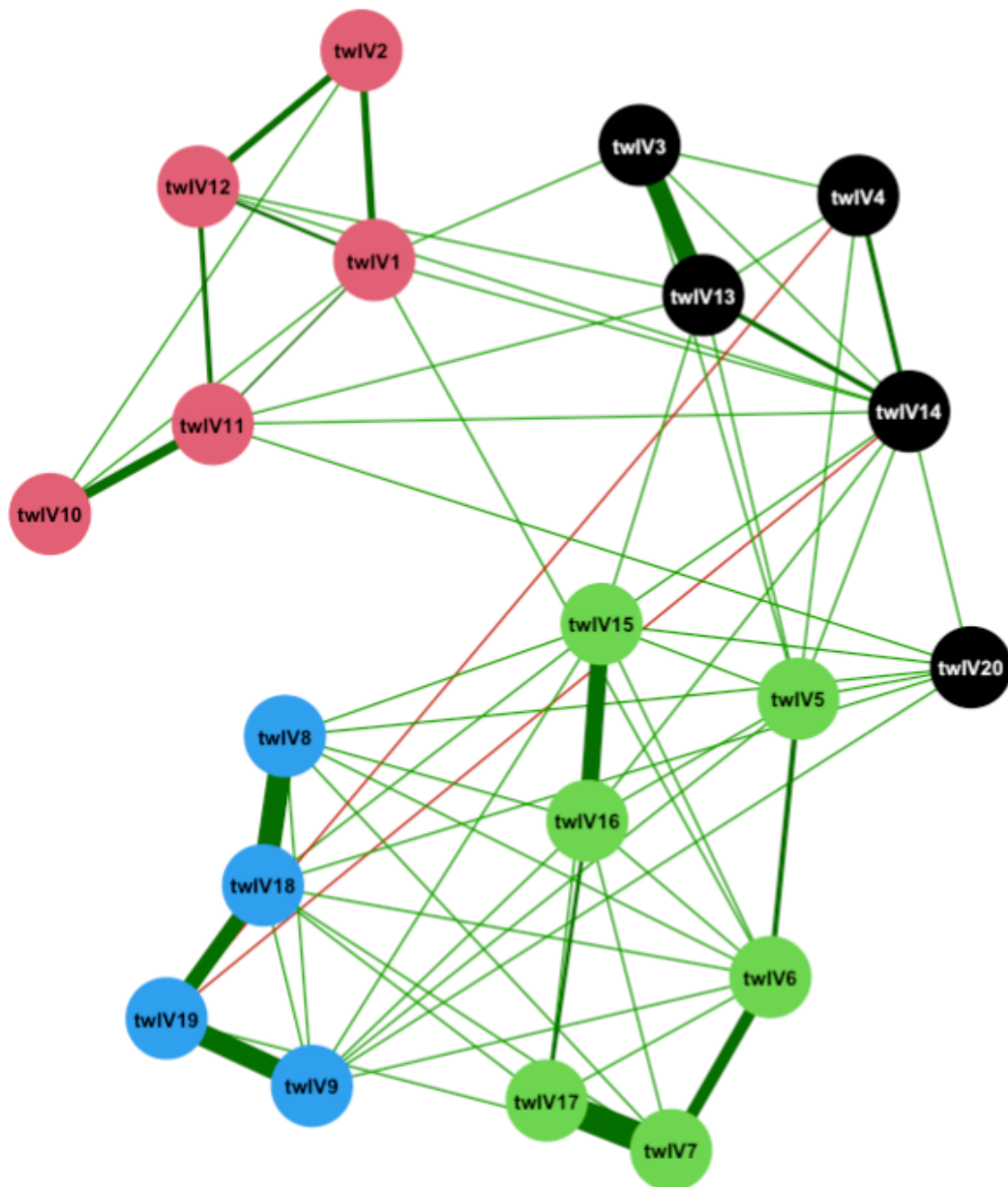
Table SA.6

Regression Models for Testing Interaction Between Gender and Personal Values (with Sociodemographic Factors Controlled for)

Variables	<i>b</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI of <i>b</i>	
						<i>LL</i>	<i>UL</i>
Step 1: Sociodemographic Factors							
Age	-0.75	0.23	-.20	-3.27	.001	-1.20	-0.30
Educational level	0.18	0.27	.03	0.65	.514	-0.35	0.70
Employment (No Employment)	9.87	3.47	.12	2.84	.005	3.05	16.68
Number of children in the household	1.68	1.24	.06	1.35	.178	-0.76	4.12
Age of the oldest child	-0.24	0.26	-.06	-0.92	.357	-0.76	0.27
Child with disabilities	-3.19	5.59	-.02	-0.57	.569	-14.16	7.79
Hours spent with children	-0.87	0.38	-.10	-2.30	.022	-1.61	-0.13
Residence Place: Village	-0.78	3.00	-.01	-0.26	.795	-6.68	5.12
Residence Place: City	3.07	2.26	.06	1.36	.174	-1.36	7.51
Neighborhood: Disadvantaged	12.48	5.21	0.10	2.39	.017	2.25	22.72
Neighborhood: Prosperous	2.55	2.48	0.04	1.03	.305	-2.32	7.42
Single parent family	8.95	3.44	0.10	2.60	.010	2.19	15.71
Step-family	2.34	4.46	0.02	0.53	.600	-6.41	11.09
Multi-generational family	2.24	6.48	0.01	0.35	.730	-10.49	14.97
Other family types	48.18	19.20	0.10	2.51	.012	10.48	85.89
F (15, 623) = 4.28***; $\Delta R^2 = .22$; $\Delta R^2_{\text{adjusted}} = .07$							
Step 2: Personal Values							
Gender	-12.02	2.10	-.22	-5.73	.000	-16.14	-7.90
Conformity	1.07	1.05	.04	1.02	.307	-0.99	3.12
Tradition	0.66	1.09	.03	0.60	.546	-1.49	2.81
Benevolence	-2.82	1.08	-.11	-2.62	.009	-4.94	-0.71
Universalism	1.11	1.13	.04	0.98	.328	-1.11	3.32
Achievement	5.66	1.14	.21	4.95	.000	3.42	7.91
Power	5.70	1.11	.22	5.16	.000	3.53	7.87
F (7, 616) = 18.65***; $\Delta R^2 = .16$; $\Delta R^2_{\text{adjusted}} = .15$							
Step 3: Interaction Terms Between Gender and Personal Values							
Gender $\times$ Conformity	-3.32	2.23	-.08	-1.49	.137	-7.70	1.06
Gender $\times$ Tradition	3.63	2.17	.09	1.68	.094	-0.62	7.89
Gender $\times$ Benevolence	-1.30	2.30	-.03	-0.56	.573	-5.81	3.22
Gender $\times$ Universalism	2.53	2.28	.06	1.11	.269	-1.96	7.01
Gender $\times$ Achievement	-0.72	2.35	-.02	-0.31	.759	-5.34	3.90
Gender $\times$ Power	-0.96	2.28	-.02	-0.42	.674	-5.44	3.52
F (6, 610) = 1.10; $\Delta R^2 = .01$; $\Delta R^2_{\text{adjusted}} = .00$							

Figure SA.1

Item-Level Graphical Gaussian Model of Twenty Item Values Inventory Questionnaire



Note. The thickness of the edges represents the strength of association between nodes (i.e., items); the strongest edge weight represents a value of 0.52 (edge between items twIV7 and

twlV17). Green lines reflect positive correlations, whereas red lines reflect negative correlations. Further following the community detection result, we denote the nodes belonging to the same community with the same color; specifically, four communities are detected, characterized by red, black, green, and blue, respectively. According to the design of the Twenty Item Values Inventory Questionnaire, items twlV1 and twlV11 belong to the subscale of conformity; items twlV2 and twlV12 belong to the subscale of tradition; items twlV3 and twlV13 belong to the subscale of benevolence; items twlV4 and twlV14 belong to the subscale of universalism; items twlV5 and twlV15 belong to the subscale of self-direction; items twlV6 and twlV16 belong to the subscale of stimulation; items twlV7 and twlV17 belong to the subscale of hedonism; items twlV8 and twlV18 belong to the subscale of achievement; items twlV9 and twlV19 belong to the subscale of power; items twlV10 and twlV20 belong to the subscale of security. As shown in the figure, items belonging to the same score value and compatible score values are closer and have stronger association with each other than with other items belonging to opposite values (with two items of security, i.e., twlv10 and twlv20 as exceptions; these two items were separated, specifically, twlv10 was correctly positioned closer to items belonging conformity and tradition; twlv20 was positioned closer to items belonging benevolence and universalism, but considering these two values were compatible to security value according to Schwartz's formulation, we do not see this as a evidence that this measurement does not have sound validity in Polish context.)

Figure SA.2

Scale-Level Graphical Gaussian Model of Twenty Item Values Inventory Questionnaire



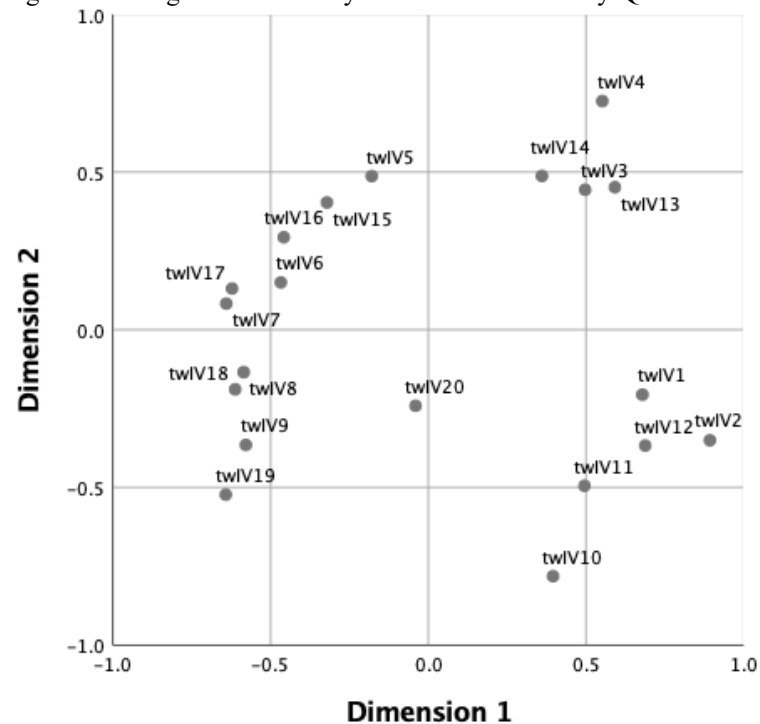
Note. The thickness of the edges represents the strength of association between nodes (i.e., scales); the strongest edge weight represents a value of 0.46 (edge between items stimulation and self-direction). Green lines reflect positive correlations, whereas red lines reflect negative correlations. Further following the community detection result, we denote the nodes

belonging to the same community with the same color; specifically, four communities are detected, characterized by red, black, green, and blue, respectively.

Figure SA.3

Multidimensional Scaling of Items of Twenty Item Values Inventory Questionnaire

Note. According to the design of the Twenty Item Values Inventory Questionnaire, items



twlV1 and twlV11 belong to the subscale of conformity; items twlV2 and twlV12 belong to the subscale of tradition; items twlV3 and twlV13 belong to the subscale of benevolence; items twlV4 and twlV14 belong to the subscale of universalism; items twlV5 and twlV15 belong to the subscale of self-direction; items twlV6 and twlV16 belong to the subscale of stimulation; items twlV7 and twlV17 belong to the subscale of hedonism; items twlV8 and twlV18 belong to the subscale of achievement; items twlV9 and twlV19 belong to the subscale of power; items twlV10 and twlV20 belong to the subscale of security. As shown in the figure, items were dispersed perfectly following Schwartz's model.

Figure SA.4

Multidimensional Scaling of Ten Values of Twenty Item Values Inventory Questionnaire

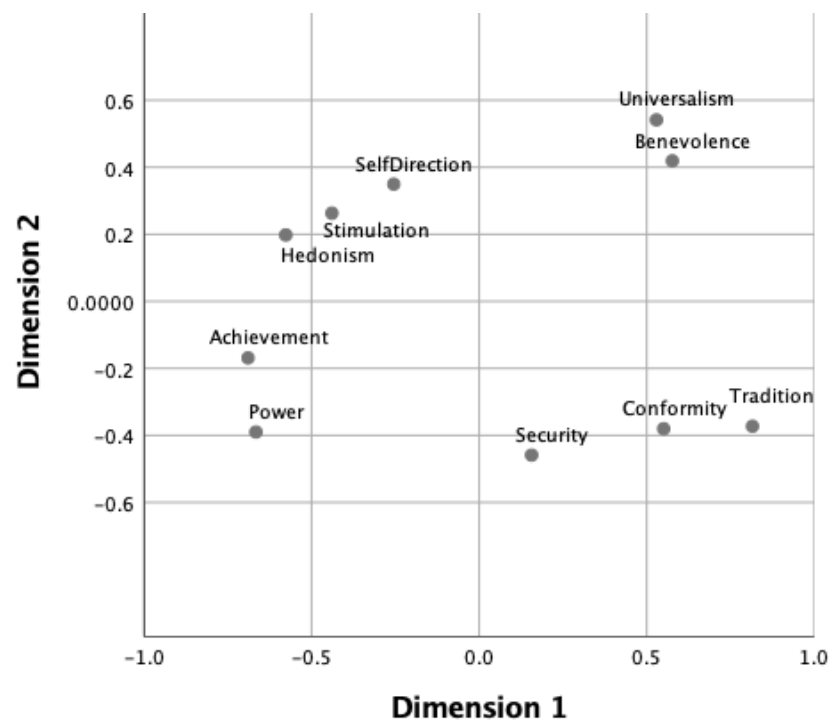
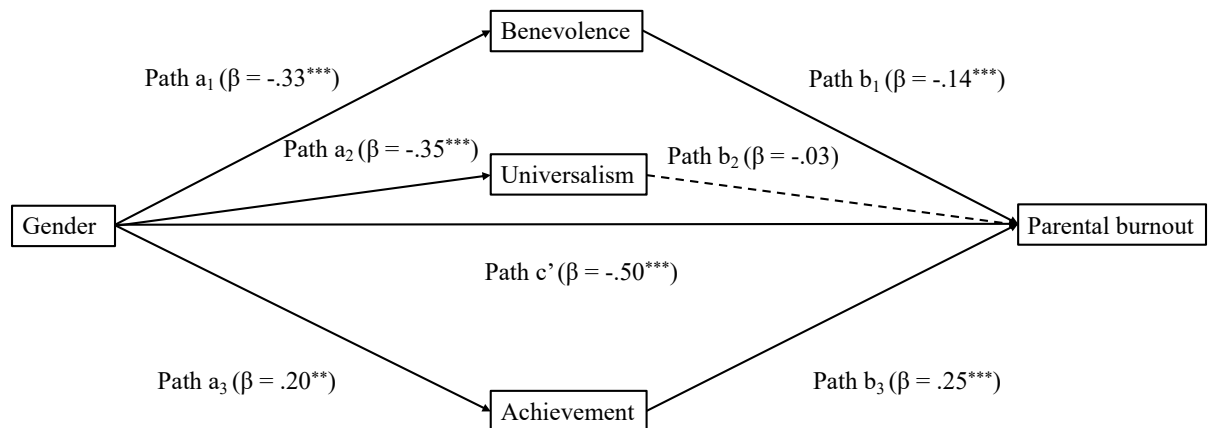


Figure SA.5

The Framework and the Results for the Model Encompassing the Indirect Path from Gender to Parental Burnout Through Personal Values.



Note. As regards gender, fathers were coded as “1” whereas mothers were coded as “0.” Path a₁-a₃ denotes the effect of gender (i.e., the predictor) on personal values (i.e., the mediator). Path b₁-b₃ represents the effect of personal values on parental burnout (i.e., the outcome) when gender is controlled, path c' represents the effect of gender on parental burnout when personal values are controlled. The summary of regression coefficients for the concerned paths figured in the parentheses. β = standardized regression coefficient.

Appendix B Disentangling the Effects of Intrapersonal and Interpersonal Emotional Competence on Parental Burnout

Disentangling the Effects of Intrapersonal and Interpersonal Emotional Competence on Parental Burnout

Abstract

Emotional competence (EC) has been documented as one of the most influential resource to protect parents from parental burnout (PB). However, the dimensions of EC have inconsistent effects across studies: while intrapersonal EC consistently had a protective effect on PB, interpersonal EC was paradoxically documented both as a risk factor and a protective factor. Relying on third-variable effect analyses on two independent datasets (842 Belgian parents and 377 Polish parents), this pre-registered study found that (1) intrapersonal EC drives the protective effect of interpersonal EC, and (2) after being adjusted for intrapersonal EC, interpersonal EC does not have significant effect on PB in the Polish sample and even becomes detrimental in the Belgian sample. These findings highlight the importance of examining the unique effect of each EC dimension while controlling for the others. Besides, it also implicates interventions aimed at improving EC to reduce PB should focus on intrapersonal EC.

Reference

Lin, G.-X., Roskam, I., & Mikolajczak, M. (2021). Disentangling the effects of intrapersonal and interpersonal emotional competence on parental burnout. *Current Psychology*. Advance online publication. <https://doi.org/10.1007/s12144-021-02254-w>

1. Introduction

Parental burnout (PB)—an exhaustion disorder in the parenting role (Roskam et al., 2018)—has received mounting attention both inside and outside the scientific community (see Mikolajczak et al., 2021; Roskam et al., 2021). This is not only due to its worrying prevalence (Roskam et al., 2021), but also to its very detrimental consequences including physical and mental health deterioration of the concerned parents and a sharp increases of negative parenting behaviors (Brianda, Roskam, Gross, et al., 2020; Mikolajczak et al., 2019; Szczygiał et al., 2020). The severe consequence of PB calls for more attention to external and internal factors that may protect parents from it.

Emotional competence (EC)—the extent to which individuals can identify, express, understand, regulate, and use their own (denoted as intrapersonal EC) and others' (denoted as interpersonal EC) emotions (Brasseur et al., 2013; Mayer & Salovey, 1997)—has been nominated as one particular good internal candidate to protect parents from PB (Mikolajczak et al., 2018). However, a closer look at previous findings reveals discrepancies. Whereas the global score of EC has been shown to have a potent protective effect on PB (Mikolajczak et al., 2018), its dimensions showed inconsistent effects. More specifically, while intrapersonal EC consistently had a protective effect on PB, interpersonal EC was sometimes a risk factor (Bayot et al., 2020) and sometimes a protective factor (Lin et al., 2023) for PB.

Scrutinizing the conflicting studies, we find, first, interpersonal EC positively correlated with intrapersonal EC, and both of them negatively associated with PB (Bayot et al., 2020; Lin et al., 2023). Second, although interpersonal EC negatively associates with PB (Lin et al., 2023), this effect not only disappears but even reverses when intrapersonal EC is controlled for (Bayot et al., 2020). These findings suggest that intrapersonal EC may act as a confounder (i.e., a variable related to the other factors of interest that falsely obscures or accentuates the relationship between them) driving the *negative* association of interpersonal EC with parental burnout (see MacKinnon et al., 2000). To test this possibility, this pre-registered study will reanalyze datasets of the two conflicting studies (Bayot et al., 2020; Lin et al., 2023) and test the estimate of confounder (i.e., intrapersonal EC) bias as well as the adjusted effect of interpersonal EC on both datasets.

2. Methods

2.1 Participants and procedure

Two datasets independently collected in Belgium (named “Belgian sample”) and Poland (named “Polish sample”) will be analyzed. The Belgian sample comprised 842 parents (M_{age} of 38.72 years, $SD_{\text{age}} = 7.21$ years) and the Polish sample 377 parents (M_{age} of 37.83 years, $SD_{\text{age}} = 7.64$ years). Parents' demographic characteristics are detailed in Bayot and colleagues (2020; for Belgium sample) and Lin and colleagues (2023; for Polish sample).

2.2 Measures

We measured PB with the Parental Burnout Assessment (PBA; Roskam et al., 2018). Its 23 items are rated on a 7-point frequency scale (from *never* [0] to *everyday* [6]) and summed to form a global score. The Cronbach's α of the scale for Belgian sample was .97 whereas for the Polish sample was .96.

We assessed EC with the Profile of Emotional Competence (PEC; Brasseur et al., 2013), a questionnaire assessing both intrapersonal and interpersonal EC. Its 50 items are rated on a 5-point Likert scale (from *does not describe me at all* [1] to *describes me perfectly* [5]) and averaged to form a global score. The Cronbach's α s of intrapersonal and interpersonal EC were .88 and .88 in Belgian sample and .88 and .90 respectively in Polish sample.

2.3 Analysis Strategy

Strictly following the preregistered report (https://osf.io/ady2t/?view_only=0d4e6adfe2b64799a66da8a4778b2632), we examined our hypotheses with the third variable effect analysis (MacKinnon et al., 2000), as described in Figure B.1. In practice, this involves multiple regressions using PROCESS 3.5 on SPSS 25 (Model 4; Hayes, 2018). The PROCESS module estimates the confounder bias with the bootstrap sampling method (number of bootstrap samples = 5000).

3. Results

Regression analyses revealed that the estimate of confounder (i.e., intrapersonal EC) bias was significant in the direction of a beneficial effect (i.e., intrapersonal EC negatively predicted PB) in both Belgian (effect = -12.08, bootstrapped SE = 1.43, bootstrapped 95% CI [-14.93, -9.38]) and Polish samples (effect = -7.50, bootstrapped SE = 2.17, bootstrapped 95% CI [-12.12, -3.50]). Second, the adjusted effect of interpersonal EC was in the direction of a deteriorative effect (i.e., interpersonal EC positively predicted PB) in Belgian sample (effect = 6.48, SE = 2.16, bootstrapped 95% CI [2.25, 10.71]) but null in Polish sample (effect = -4.95, SE = 2.96, 95% CI [-10.77, 0.88]). The total effect of interpersonal EC was in beneficial direction in both datasets (see Model 3 in Table B.1).

4. Discussion

Because of its tremendous implication to the well-being of parents and even their children, efforts to explore protective factors and propose intervention programs for PB brook no delay (Gruber et al., 2020; Mikolajczak et al., 2021). Abundant literature has nominated EC as a significant protective factor vis-à-vis parental burnout. As a result, EC has been integrated as a core component of intervention programs for parental burnout (Bayot et al., in press; Brianda, Roskam, Gross, et al., 2020). Nevertheless, the current findings demonstrate that the protective effect of interpersonal EC vis-à-vis PB may be solely due to its overlap with

intrapersonal EC. After being adjusted for intrapersonal EC, interpersonal EC does not significantly protect parents from PB in the Polish sample and even becomes detrimental in the Belgian sample. This detrimental effect found in the Belgian sample may not be spurious since the detrimental effect of interpersonal EC on health-related outcomes has also been documented in a previous Belgian nationally representative study (i.e., Mikolajczak et al., 2015). Our findings therefore constitute a timely call to put a brake on the improvement of interpersonal EC in interventions to treat PB, at least for Belgian parents.

To compare the discrepant results between Polish (Lin et al., 2023) and Belgian (Bayot et al., 2020) samples, we aligned the analysis strategy of the two independent datasets. Our research corroborated that the effect of interpersonal EC on PB differs between samples, which may reflect the differential balance between costs and benefits of interpersonal EC (Pekaar et al., 2018) on parental burnout across different populations. Indeed, although interpersonal EC could be beneficial in many situations (e.g., strengthening interpersonal relationships or parent-child relationships; Stern et al., 2015), it can backfire in some situations. Parents who are overly involved with others' emotions are at risk for burnout (e.g., J. Lee et al., 2011) because they may take others' distress home/on themselves (e.g., exposing to emotional distress on social media; Brownlie & Shaw, 2019; when caring their loved one who is undergoing a distressing life experience; Hua et al., 2021)¹. It could be thus assumed that the benefit of the interpersonal EC for the Polish sample may counterbalance its cost, and the cost remains to outweigh its benefit in the Belgian sample. The detrimental effect thus only emerges in the Belgian sample.

In sum, the current pre-registered reanalysis offers a new perspective on the EC-PB association. Intrapersonal EC seems to be the crucial component of EC that protects parents. The beneficial effect of interpersonal EC is not only insignificant after intrapersonal EC adjusted, but it even puts some parents at risk. This message bears both research and clinical implications. Regarding the former, this study highlights the importance of examining the impact of each EC dimension while systematically controlling for the effect of the other. As regards the latter, the findings suggest that interventions aimed at improving EC to reduce parental burnout should primarily focus on enhancing intrapersonal EC and not interpersonal EC.

¹ After the publication of this article, a recent study has shown that parents' emotional empathy, particularly the dimension of personal distress (i.e., the tendency to become distressed in response to others' distress), may exacerbate the association of children's negative emotionality with parental burnout. This supports my position here. Besides, the authors of this study explained that mothers with greater tendencies to experience personal distress, especially when facing high rates of negative emotionality, would become too self-preoccupied to adopt the child's perspective, which, in turn, increases the likelihood of experiencing parental burnout (Kadosh-Laor et al., 2023).

Table B.1

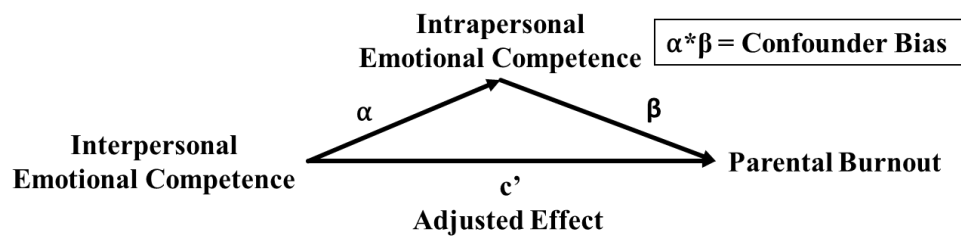
Regression Coefficients for the Third Variable Effect Analysis in Belgian Sample (with Result in Polish Sample Revealed in Parentheses Brackets)

Model 1: Interpersonal emotional competence predicts Intrapersonal emotional competence.						
Variables	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI of <i>B</i>	
					<i>LL</i>	<i>UL</i>
<i>R</i> ² = .28*** (.40***)						
Interpersonal Emotional Competence	0.60 (0.61)	0.03 (0.04)	18.00 (15.79)	.000 (.000)	0.53 (0.53)	0.66 (0.68)
Model 2: Both interpersonal and intrapersonal emotional competence predict parental burnout.						
Variables	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI of <i>B</i>	
					<i>LL</i>	<i>UL</i>
<i>R</i> ² = .13*** (.11***)						
Interpersonal Emotional Competence	6.48 (-4.95)	2.16 (2.96)	3.01 (-1.67)	.003 (.096)	2.25 (-10.77)	10.71 (0.88)
Intrapersonal Emotional Competence	-20.27 (-12.36)	1.91 (3.09)	-10.62 (-4.00)	.000 (.000)	-24.01 (-18.43)	-16.52 (-6.29)
Model 3: Interpersonal emotional competence predicts parental burnout (i.e., the total effect of interpersonal emotional competence).						
Variables	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI of <i>B</i>	
					<i>LL</i>	<i>UL</i>
<i>R</i> ² = .01** (.07***)						
Interpersonal Emotional Competence	-5.60 (-12.45)	1.95 (2.34)	-2.87 (-5.31)	.004 (.000)	-9.43 (-17.05)	-1.77 (-7.84)

Note. CI = confidence interval; LL = lower limit; UL = upper limit.

Figure B.1

Analysis Strategy of the Present Research



α represents the effect of interpersonal emotional competence on the intrapersonal emotional competence. β represents the effect of intrapersonal emotional competence on parental burnout while controlling interpersonal emotional competence. c' is the adjusted predictive effect of interpersonal emotional competence on parental burnout. The multiplication of α and β equal to confounder (intrapersonal emotional competence) bias.

**Appendix C Perfectionistic Parents Are
Burnt Out By Hiding Emotions From Their
Children, But This Effect Is Attenuated
By Emotional Intelligence**

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Abstract

Studies have revealed that parenting perfectionism, especially the dimension of perfectionistic concerns, is a substantial risk factor for parental burnout, but this association can be buffered by emotional intelligence. Less is known, however, about the underlying mechanism of these observations. This study examined an integrated model consisting of both the indirect path from perfectionistic concerns to parental burnout through expressive suppression, and the moderating effect of emotional intelligence in the association of both perfectionistic concerns and expressive suppression with parental burnout. We investigated this model in a sample of Polish parents ($N = 439$). The results revealed that emotional intelligence buffered both the positive direct and indirect (through expressive suppression) effects of perfectionistic concerns on parental burnout, therefore supporting the model. In addition to expanding the understanding of the emotional experiences of perfectionistic parents, the present study also provides practical implications for treating and preventing parental burnout.

Reference

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1. Introduction

The global rise of individualism (Santos et al., 2017) places a heavy burden on recent generations encouraging persons to compete with one another (Curran & Hill, 2019). Responding to this socially individualistic climate, more individuals than ever strive for perfection by setting excessively high personal standards and adopting overly critical self-evaluations, even in the most private aspects of life, such as in parenting (Snell et al., 2005). Parenting perfectionism has positive effects, such as increased parental engagement and self-efficacy (M. A. Lee et al., 2012). It also has negative aspects, however, such as the reinforcement of parental stress and the increased risk of parental burnout (Kawamoto et al., 2018; Lin et al., 2023; Sorkkila & Aunola, 2020; Szczygieł et al., 2020). This study focuses on parental burnout and takes a further step to shed light on the mechanisms that underlie the relation between perfectionistic concerns, considered a maladaptive aspect of parenting perfectionism, and parental burnout.

1.1 Parenting Perfectionism and Parental Burnout

Parenting perfectionism (PP) is defined as perfectionism contextualized in the parenting context. Following the factor analytic evidence of perfectionism, PP has been defined as a multidimensional construct encompassing two positively related superordinate dimensions: perfectionistic concerns (PC) and perfectionistic strivings (PS) (Smith et al., 2021; Stoeber & Gaudreau, 2017). PS contain the intention of setting high standards and self-oriented desires/struggles to be perfect. Usually, comorbid and overlapping with PS, PC includes doubts about one's own actions, concerns about making mistakes, a sense of discrepancy between one's standards and actual performance, and fears of negative evaluation from others if one fails to be perfect (Kawamoto et al., 2018; Lin et al., 2023).

Just as perfectionism has implications for an individual's well-being (Smith et al., 2020; Stoeber et al., 2021), PP has been shown to be crucial to parental maladjustment (e.g. M. A. Lee et al., 2012) or, specifically, to parental burnout (PB) – a globally widespread psychological syndrome including exhaustion in one's parental role, emotional distancing from children, loss of parental fulfilment, and contrast with previous parental self (i.e., feeling that one is not as good a parent as in the past; shame about one's parenting) (Roskam et al., 2018, 2021). This is indeed worrying since PB has been shown to have detrimental consequences for both parents' and children's well-being, including suicidal and escape ideations and neglectful and violent behaviour towards one's child(ren) (Mikolajczak et al., 2019).

Previous studies conducted in both Western (Lin et al., 2023; Sorkkila & Aunola, 2020) and Eastern cultures (Kawamoto et al., 2018) have revealed a potent predictive effect of PP on PB. The two PP dimensions, however, have differential effects. While PC was robustly associated with a greater extent of PB, the association of PS with PB was found to be not only weaker but even insignificant when controlling for PC (Kawamoto et al., 2018; Lin et

al., 2023). This suggests that PC is the dimension of PP that puts parents at risk of PB. Although much attention has been drawn to the positive association between PC and PB, the underlying mechanism remains unclear. In this study, we aim to address this line of inquiry. As described in the following sections, we focus on the role of emotion regulation parents employ during their interactions with the child(ren), and specifically expressive suppression, as a potential explanatory mechanism for the PC–PB link.

1.2 The Effect of Perfectionistic Concerns on Parental Burnout through Expressive Suppression

According to Gross's process model of emotion regulation, expressive suppression (hereafter suppression) refers to response-focused emotion regulation and encompasses the conscious and effortful inhibition of overt emotional expression when one is emotionally aroused (Gross, 2014). Research shows that suppression is one of the most commonly used emotion regulation mechanisms during emotion-abundant/emotion-dynamic parent-child interactions (Karnilowicz et al., 2019; Le & Impett, 2016; Waters et al., 2020). For this reason, and because suppression appears particularly relevant to the PC-PB relationship, this study focuses on this emotion regulation strategy. First, numerous studies demonstrate that the tendency to use suppression is common among perfectionists, particularly maladaptive perfectionists (i.e., overly concerned about mistakes; Bergman et al., 2007; Newman et al., 2019; Richardson et al., 2014). It is not surprising, as it has been reported that maladaptive perfectionists focus primarily on performance (e.g., showing correct emotions) and do not tolerate uncertainty (Kawamoto & Furutani, 2018). Second, research shows that concealing feelings contributes to chronic stress (Moore et al., 2008) and leads to burnout (Lin et al., 2021). Thus, it can be predicted that excessive use of suppression is also associated with burnout in parenting.

Building on the above-mentioned findings, we propose that PC contribute to greater use of suppression during parent-child interactions, which in turn leads to higher PB.

1.3 The Buffering Effect of Emotional Intelligence

PB is not a product of a single “maladaptive” emotion regulation strategy or personality trait. According to the Balance between Risks and Resources theory of PB, this syndrome results from a chronic imbalance between risk and protective factors in the parenting domain (Mikolajczak & Roskam, 2018). Therefore, protective factors could theoretically compensate for the damage done by risk factors. Emotional intelligence (EI), the individual differences in the way people functionally identify, express, understand, regulate and use their emotions and the emotions of others (Mayer & Salovey, 1997; Petrides et al., 2016), is considered as one of the strongest protective factors against PB (Mikolajczak et al., 2018). Its protective effects hold true over and above socio-demographic factors (Bayot et al., 2020) and parents' personality traits (Szczygieł et al., 2020). More relevant to our study, Lin, Szczygieł, et al. (2023) demonstrated that EI not only predicts less PB over and above PC but also buffers

PC's harmful effects on PB.

There is also evidence of a protective effect of EI on the suppression-PB relationship. Research indicates that suppression leads to an increase in negative emotions and physiological and psychological arousal (Gross, 2014), which, if prolonged, intensifies fatigue and leads to chronic stress (Lin et al., 2021). Referring to the EI concept, one can assume that parents high in EI have sufficient resources at their disposal to counter the consequences of suppression effectively (Peña-Sarrionandia et al., 2015). This line of reasoning is supported by findings demonstrating that EI enables individuals to identify emotionally laden stimuli, recognize their emotional states, understand their causes and consequences, and change them when they deem them detrimental to their well-being and goals (Petrides et al., 2016). This beneficial effect of EI has already been observed in organizational psychology research showing that EI buffers the harmful effects of suppression (Bechtoldt et al., 2011; Szczygieł, 2018).

1.4 The Present Study

The present study pursues two aims. The first is to examine whether the previously demonstrated link between PC and PB can be explained by an indirect path through suppression (see the model in Figure C.1). We propose that PC positively predicts PB through suppression (Hypothesis 1; H1). The second aim is to investigate whether EI acts as a resource to protect parents from the harmful effects of PC and suppression (see the model in Figure C.2). We hypothesise that EI buffers both the relation between PC and PB (Hypothesis 2; H2) and suppression and PB (Hypothesis 3; H3). Together, we predict that PC's indirect effect (through suppression) on PB will be contingent on parents' EI (Hypothesis 4; H4). Specifically, PC's indirect effect on PB depends on parents' EI in such a way that the relationships are stronger for parents low in EI and weaker for parents high in EI.

2. Method

2.1 Participants and Procedure

A sample of 439 Polish parents ($M_{\text{age}} = 38.09$ years, $SD_{\text{age}} = 7.43$ years; 65.1% mothers) participated in this study. 79.3% of families were two-parent, 7.3% were single-parent, and the remaining 13.4% included step-families and multigenerational families. Among the participants, 16.4% had achieved a graduate degree, 56.9% had an undergraduate degree, 23.5% had achieved secondary school, and 3.2% had primary/basic vocational level for their highest educational level. Overall, the participants had from 1 to 4 children living with them. The sample's socio-demographic characteristics and the study procedure details are presented in *the* Online Supplementary Material (OSM).

2.2 Measures

Below we have provided basic information about the measures used in the study. A comprehensive description of the instruments can be found in the OSM.

2.2.1 Parental Burnout

PB was assessed with the Parental Burnout Assessment (PBA, Roskam et al., 2018; Polish version by Szczygieł et al., 2020). The PBA is a 23-item questionnaire (e.g. ‘I feel completely run down by my role as a parent’). Items are rated on a 7-point Likert scale: from 0 (*never*) to 6 (*every day*). Scores were calculated by summing up the items.

2.2.2 Emotional Intelligence

EI was measured with the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF, Petrides, 2009; Polish version by Szczygieł et al., 2015). This is a 30-item questionnaire (e.g. ‘Expressing my emotions with words is not a problem for me’). Items are rated on a 7-point Likert scale: from 1 (*completely disagree*) to 7 (*completely agree*). Scale scores were calculated by averaging all the items, after appropriate items were reversed.

2.2.3 Parenting Perfectionism

PP was measured with a brief 6-item questionnaire developed by Lin and colleagues (2023). This questionnaire consists of two subscales: perfectionistic concerns (3 items; e.g. ‘As a parent, if I failed in part, it’s as bad as if I failed completely’) and perfectionistic strivings (3 items; e.g. ‘I aim to be a perfect parent’). Items are rated on a 5-point scale from 1 (*does not match me at all*) to 5 (*matches me perfectly*). Scale scores were calculated by averaging the responses to the items associated with each perfectionism dimension.

2.2.4 Suppression

Suppression was assessed using a 5-item questionnaire developed based on a pilot study. The pilot study involved 34 mothers and 29 fathers, who were asked to list freely five emotions that parents should not express in the presence of their children. After the exclusion of synonymous terms, the final list of emotions includes rage, irritation, nervousness, anger and impatience. These emotions were extracted to constitute the Parental Emotional Suppression Scale, which assesses the extent to which parents suppressed each emotion when interacting with their child(ren) in the past 3–4 weeks (e.g. ‘Over the past 3–4 weeks, how often have you refrained from expressing rage while interacting with your child(ren)’). Items are rated on a 7-point Likert scale from 0 (*never*) to 6 (*always*). Scale scores were calculated by averaging the items.

2.3 Analysis Strategy

The analyses were conducted with IBM SPSS 25.0 and PROCESS macro 3.5 (Hayes, 2018). First, we tested the indirect effect of PC on PB via suppression (H1) by PROCESS macro (Model 4 indexed in Hayes (2018); see Figure C.1). To calculate the indirect effect,

one should analyse a model in which both PC (path c' in Figure C.1) and suppression were regressed (path b in Figure C.1) on PB, and a model in which PC was regressed on suppression (path a in Figure C.1). We used the product-of-coefficients with the bootstrapping method (producing 95% bias-corrected confidence intervals) to test the significance of the indirect effects from 5,000 resamples of the data.

Second, we inspected the model encompassing the moderation effects of EI on the effects of PC (*H2*) and suppression (*H3*) on PB, as well as the conditional indirect effect (via suppression) of PC on PB depending on the EI levels (*H4*) by PROCESS macro (Model 15 as indexed by Hayes (2018); see Figure C.2). To calculate such effects, in addition to the model in which PC was regressed on suppression (path a in Figure C.2), a model in which PC (path c' in Figure C.2), suppression (path b in Figure C.2), EI, and the interaction terms (of both PC and EI and suppression and EI; interaction terms d & e in Figure C.2) were all regressed on PB should be further analysed. Throughout all analyses, following Hill and colleagues' (2010) suggestion, we also set PS as a covariate to test PC's unique effect to control the effect of the overlap between the two perfectionism dimensions. When inspecting the moderation effects, in order to avoid multi-collinearity, all variables that define products were mean-centered before creating interaction terms.

3. Results

3.1 Preliminary Analyses

Table C.1 shows descriptive statistics, Cronbach's alpha and correlations between study variables. Both dimensions of PP and suppression were positively related to PB. EI was negatively related to PB, PP dimensions and suppression. Moreover, when controlling the effect of PC on PB, the relation between PS and PB disappeared, whereas the relation between PC and PB remained significant when controlling the effect of PS (see Regression Model A in Table C.2). These results allow sole focus on the effect of PC in the following analyses.

3.2 Testing the Path from Perfectionistic Concerns via Suppression to Parental Burnout

Regression analysis revealed that PC positively predicted suppression (see Regression Model B in Table C.2), which in turn positively predicted PB; nevertheless, the residual direct effect of PC remains significant (see Regression Model C in Table C.2). The product-of-coefficients with the bootstrapping method further revealed a significant positive indirect effect of PC on PB through suppression ($\beta = .06$, $b = 1.81$, bootstrapped SE = 0.74, bootstrapped 95% CI of $b = [0.42, 3.38]$), thereby confirming H1 and supporting the model presented in Figure C.1.

3.3 Testing the Moderating Role of Emotional Intelligence in the Perfectionistic Concerns-Parental Burnout Relationship

The interaction terms of PC and EI, as well as suppression and EI, both significantly predicted PB (see Regression Model D in Table C.2). Simple slope tests revealed that the positive predictive effects of PC on PB decreased to insignificant, as EI increased from low ($\beta = .25$, $b = 6.99$, $SE = 1.52$, 95% CI of $b = [3.99, 9.98]$) to high ($\beta = .04$, $b = 1.13$, $SE = 1.65$, 95% CI of $b = [-2.11, 4.36]$) (see Figure C.3a for interaction plot). Moreover, the positive predictive effects of suppression on PB decreased as EI increased from low ($\beta = .48$, $b = 10.78$, $SE = 1.07$, 95% CI of $b = [8.66, 12.89]$) to high ($\beta = .18$, $b = 4.08$, $SE = 1.24$, 95% CI of $b = [1.64, 6.51]$), although they remained significant (see Figure C.3b for interaction plot). These results supported our H2-3.

The index of moderated mediation did not pass through zero (index of moderated mediation = -1.29 with bootstrapped $SE = 0.70$ and 95% CI = $[-2.92, -0.21]$), which indicates that, in line with H4, the indirect effect of PC on PB through suppression was significantly different among participants with low and high EI. In particular, the conditional indirect effect of PC on PB via suppression decreased as EI increased from low ($\beta = .07$, $b = 2.08$, bootstrapped $SE = 0.84$, 95% bootstrapped CI of $b = [0.53, 3.81]$) to high ($\beta = .03$, $b = 0.79$, bootstrapped $SE = 0.44$, 95% bootstrapped CI of $b = [0.06, 1.74]$), although it remained significant. The significant conditional indirect effect supported our H4.

These results supported H2-4 and, thus, our model presented in Figure C.2.

4. Discussion

The increasing demands placed on today's parents put them under considerable and unprecedented pressure (Curran & Hill, 2019). By succumbing to a demanding parenting culture, parents set ever-higher expectations for themselves and strive to be perfect in their parenting role, often paying for these efforts with fatigue, stress and eventually exhaustion (see Lin et al., 2021). A growing body of evidence demonstrates that PP, especially its PC dimension, is associated with PB (Kawamoto et al., 2018; Lin et al., 2023). The present study was designed to examine the underlying mechanism linking PC and PB.

As expected, positive correlations were observed between PB and both PP dimensions. Yet, the correlation between PS and PB became insignificant when controlling for the effect of PC, while the correlation between PC and PB remained significant when controlling for the effect of PS. Importantly, the results revealed that parents high on PC in the current sample used more suppression when interacting with their child(ren), which in turn is associated with PB. These results are consistent with those obtained by Tran and Rimes (2017), who demonstrated that suppression mediates the relationship between maladaptive perfectionism and symptoms of depression.

The results of our study support the model in which EI buffers both the effects of PC and suppression on PB, as well as the indirect effect of PC on PB through suppression. These results corroborated Lin, Szczygieł, et al.'s (2021) findings that overly self-critical parents who over-focus on their imperfections (high PC) but who are high in EI experienced fewer PB symptoms than parents low in EI. The present study went a step further by showing that, on the one hand, this protective effect held true over and above suppression, and, on the other hand, this protective effect was partly due to an indirect effect via suppression. Parents high in PC are more likely to use suppression and hence are exposed to greater vulnerability to PB. Yet, this indirect effect of PC, especially the path from suppression to PB, was buffered by higher EI. These findings provide both practical implications and suggestions for future research directions.

Regarding practical concerns, there is no doubt that one best way to avoid the negative consequences of PP is to alert parents to the burdens of excessively high personal standards and overly critical self-evaluations (Winnicott, 1992). As an alternative, our research suggests that avoiding/minimising the costs of high PC and suppression is possible when parents have sufficient personal resources at their disposal, namely EI (Lin et al., 2023). Therefore, psychological help should be targeted at improving emotional skills encompassed by EI, with particular emphasis on emotion regulation. Recent findings are optimistic in their indication that EI training targeting basic emotional competencies (identification, understanding, regulation, and use of emotions) is effective even within a relatively short time: four group training sessions of two and a half hours (see Kotsou et al., 2019).

The limitations of the current study set out three directions for future research. First, our data relied solely on self-report instruments administered at the same time as a cross-sectional design. Therefore, statements of causal relationships should be put forward with caution until these results are replicated in a cross-lagged research design. Second, the current findings can only be interpreted within the independent/Western (Polish) cultural context. In fact, the effect of suppression may be moderated by one's cultural self-construal (Le & Impett, 2013). Unlike their independent counterparts, interdependent parents may experience suppression as a way to regulate emotions that feel authentic, enhance personal well-being and, thus, mitigate the risk to PB (Le & Impett, 2013). Future research could replicate our findings in different cultural contexts to extend generalisability. Third, only one specific emotion regulation was investigated. As our results show, suppression only partially mediated the PC–PB relationship. It is, therefore, likely that other emotion regulation strategies may explain the remaining direct effect of PC on PB. Pursuing research on the effects of different emotion regulation strategies on the PC–PB relationship would certainly expand our understanding of the emotional experiences of perfectionist parents.

4.1 Conclusion

The current study demonstrates the nature of the relationship between the PC dimension of PP and PB when emotion regulation and EI are considered. The findings support an integrated model in which EI buffered positive effects of both PC and suppression on PB, as well as the indirect effect of PC via suppression on PB.

Table C.1*Descriptive Statistics, Cronbach's α , and Correlation Among Study Variables*

Variables	<i>M</i>	<i>SD</i>	α	1	2	3	4
1 Perfectionistic concerns	2.59	0.94	.71				
2 Perfectionistic strivings	3.05	0.99	.81	.53**			
3 Emotional intelligence	4.94	0.50	.88	-.25**	-.15**		
4 Expressive suppression	2.98	1.18	.85	.18**	.14**	-.20**	
5 Parental burnout	28.34	26.66	.97	.32**	.23**	-.42**	.46**

* $p \leq .05$. ** $p \leq .01$.

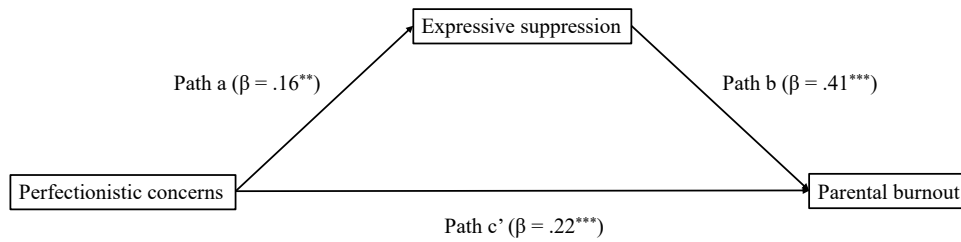
Table C.2*The Summary of Multiple Regressions*

Variables	β	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI of <i>b</i>	
						<i>LL</i>	<i>UL</i>
Regression Model A							
Outcome: Parental burnout							
Perfectionistic concerns	.28	7.39	1.50	5.29	.000	4.98	10.88
Perfectionistic strivings	.08	2.26	1.43	1.58	.115	-0.55	5.07
F(2, 436) = 27.21***; R ² = .11; adjusted R ² = .11							
Variables	β	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI of <i>b</i>	
						<i>LL</i>	<i>UL</i>
Regression Model B							
Outcome: Expressive suppression							
Perfectionistic concerns	.16	0.19	0.07	2.80	.005	0.06	0.33
Perfectionistic strivings	.06	0.07	0.07	1.02	.307	-0.06	0.20
F(2, 436) = 8.27***; R ² = .04; adjusted R ² = .03							
Variables	β	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI of <i>b</i>	
						<i>LL</i>	<i>UL</i>
Regression Model C							
Outcome: Parental burnout							
Perfectionistic concerns	.22	6.12	1.37	4.47	.000	3.43	8.81
Expressive suppression	.41	9.36	0.94	9.95	.000	7.51	11.21
Perfectionistic strivings	.06	1.63	1.29	1.26	.209	-0.92	4.17
F(3, 435) = 55.19***; R ² = .28; adjusted R ² = .27							
Variables	β	<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI of <i>b</i>	
						<i>LL</i>	<i>UL</i>
Regression Model D							
Outcome: Parental burnout							
Perfectionistic concerns	.14	4.06	1.26	3.21	.001	1.57	6.54
Expressive suppression	.33	7.43	0.87	8.50	.000	5.71	9.14
Emotional intelligence	-.24	-12.77	2.12	-6.10	.000	-16.94	-8.59
Perfectionistic concerns × Emotional intelligence	-.10	-5.85	1.92	3.05	.002	-9.62	-2.08
Expressive suppression × Emotional intelligence	-.15	-6.69	1.52	-4.39	.000	-9.69	-3.70
Perfectionistic strivings	.05	1.24	1.17	1.05	.293	-1.07	3.54
F(6, 432) = 50.42***; R ² = .41; adjusted R ² = .40							

Note. β = standardized regression coefficient. b = unstandardized regression coefficient. CI = confidence interval. LL = lower limit. UL = upper limit. * $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Figure C.1

The Framework and the Results for the Model Encompassing the Indirect Path from Perfectionistic Concerns to Parental Burnout Through Expressive Suppression

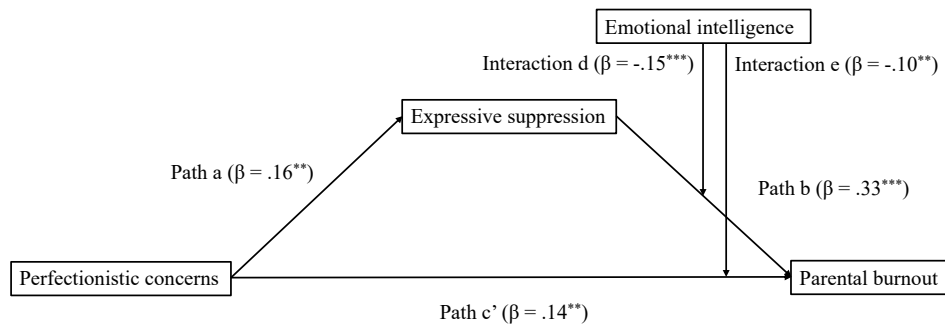


Note. Calculated from Regression Model B, path a denotes the effect of perfectionistic concerns (i.e., the predictor) on expressive suppression (i.e., the mediator). Calculated from Regression Model C, path b represents the effect of expressive suppression on parental burnout (i.e., the outcome) when perfectionistic concerns are controlled, and path c' represents the effect of perfectionistic concerns on parental burnout when expressive suppression is controlled. The summary of regression coefficients for the concerned paths figured in the parentheses.

β = standardized regression coefficient. ** $p \leq .01$. *** $p \leq .001$.

Figure C.2

The Framework and the Results for the Model Encompassing Emotional Intelligence as Moderator and the Indirect Path from Perfectionistic Concerns to Parental Burnout Through Expressive Suppression



Note. Calculated from Regression Model B, path a denotes the effect of perfectionistic concerns (i.e. the predictor) on expressive suppression (i.e. the mediator). Calculated from Regression Model D, Path b represents the effect of expressive suppression on parental burnout (i.e. the outcome) when perfectionistic concerns are controlled, path c' represents the effect of perfectionistic concerns on parental burnout when expressive suppression is controlled, interaction d is the regression coefficient of interaction term of emotional intelligence and expressive suppression, and interaction e is the regression coefficient of interaction term of emotional intelligence and perfectionistic concerns. The summary of regression coefficients for the concerned paths figured in the parentheses.

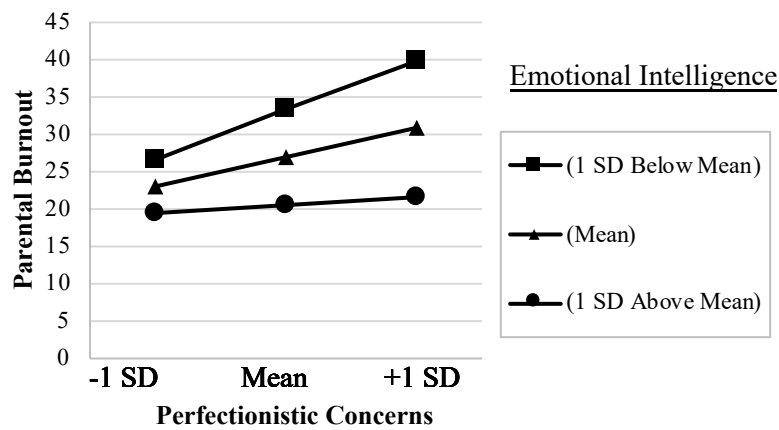
β = standardized regression coefficient.

** $p \leq .01$. *** $p \leq .001$.

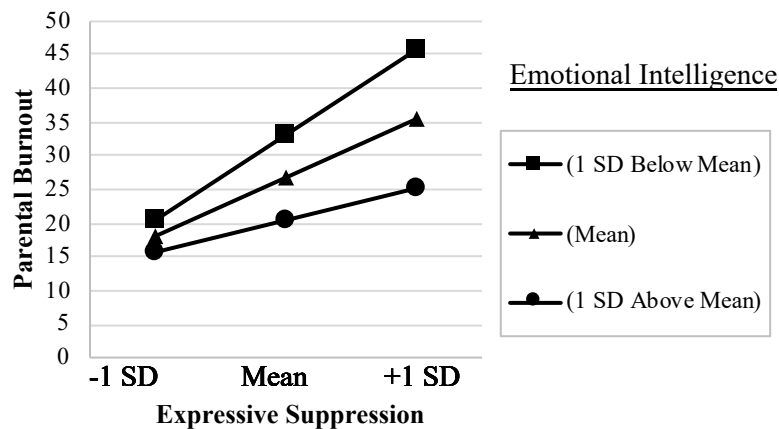
Figure C.3

Interactional Plots

a.



b.



a. Interactions Between Emotional Intelligence and Perfectionistic Concerns. b. Interactions Between Emotional Intelligence and Expressive Suppression.

5. Supplementary Material

5.1 Participants and Procedure

The study was posted online on Qualtrics. Participants were eligible to participate if they had (at least) one child under the age of 19 living with them in the same household; they were volunteers, and no remuneration was offered for participation. A final sample consists of 439 parents (The socio-demographic characteristics of the sample are presented in **Table SC.1**). Parents were asked to complete an online questionnaire upon giving informed consent, which allowed them to withdraw at any stage without having to justify their withdrawal. They were also assured that the data collected would be kept confidential and used for research purposes. The questionnaires were filled in with a “forced choice” option so that the dataset did not contain missing values. All participants lived in Poland and were native Polish. All the instructions and measures were administered in Polish. Data were collected from November 2020 until January 2021. All study procedures were approved by the Ethics Committee at university.

5.2 Psychometric Performances of Measures

5.2.1 Parental Burnout

Parental burnout was assessed with the Polish version of the Parental Burnout Assessment (PBA, Roskam et al., 2018; Polish version by Szczygieł et al., 2020). The PBA is a 23-item questionnaire consisting of four subscales: exhaustion in one’s parental role (9 items; e.g., ‘I feel completely run down by my role as a parent’), contrast with previous parental self (6 items; e.g., ‘I’m no longer proud of myself as a parent’), feelings of being fed up with one’s parental role (5 items; e.g., ‘I can’t stand my role as father/mother any more’), and emotional distancing from one’s child(ren) (3 items; e.g., ‘I do what I’m supposed to do for my child(ren), but nothing more’). Items are rated on a 7-point Likert scale: 0 (*never*), 1 (*a few times a year or less*), 2 (*once a month or less*), 3 (*a few times a month*), 4 (*once a week*), 5 (*a few times a week*), 6 (*every day*). In this study, the global PBA score was used. Scores were calculated by summing up the items. The Cronbach’s α of the questionnaire in the current sample was .97. A detailed psychometric analysis regarding Polish version of the PBA could be seen in Szczygieł and colleagues (2020).

5.2.2 Emotional Intelligence

Trait EI was measured with the Polish version of the Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF; Petrides, 2009; Petrides & Furnham, 2006; Polish version by Szczygieł et al., 2015). The TEIQue-SF is drawn from the full version of the TEIQue (for a thorough description of the factors and subscales see Petrides, 2011) and gauges how people typically process their own emotions and those of others. The TEIQue-SF contains 30 items with responses on a 7-point Likert scale from 1 (*completely disagree*) to 7 (*completely agree*). Examples of items are: ‘Expressing my emotions with words is not

a problem for me' and 'Many times, I can't figure out what emotion I'm feeling' (reversed). Scale scores were calculated by averaging the responses to the items, after appropriate items were reversed. The Cronbach's α of the TEIQue-SF in the current sample was .88. A detailed psychometric analysis regarding Polish version of the TEIQue-SF could be seen in Szczygiel and colleagues (2015).

5.2.3 Parenting Perfectionism

Parenting perfectionism was measured with the Brief Parenting Perfectionism Scale (BPPS) which is a 6-item questionnaire developed by Lin et al. (2023). The BPPS is based on the Multidimensional Parenting Perfectionism Questionnaire (MPPQ; Snell et al., 2005) and Japanese version of the Multidimensional Perfectionism Scale (J-MPS; Kawamoto et al., 2018). The questionnaire was originally designed in French and Polish. In this study, we used Polish version of the questionnaire. It consists of two subscales: perfectionistic concerns (PC; 3 items; e.g., 'As a parent, if I failed in part, it's as bad as if I failed completely') and perfectionistic strivings (PS; 3 items; e.g., 'I aim to be a perfect parent'). All items can be found in the Lin, Szczygiel, Hansotte, Roskam, & Mikolajczak (2023, Appendix 1). Items are rated on a 5-point scale from 1 (*does not match me at all*) to 5 (*matches me perfectly*). Scale scores were calculated by averaging the responses to the items associated with each perfectionism dimension. In the current sample, Cronbach's α for PC and PS were .71 and .81, respectively.

There is no formal psychometric analysis of the BPPS. Still, based on the current study results and that of Lin et al. (2021), we can provide data to support the validity of this scale.

First, to examine the structural validity of the BPPS, using the current study data, we performed a confirmatory factor analysis on the model (in which two correlated PS and PC latent factors were indicated by the corresponding items) with STATA 16.1. The model was run with a robust version of maximum likelihood estimation. Specifically, the Satorra-Bentler correction was used to adjust standard errors of parameters and all the goodness-of-fit statistics involving the likelihood-ratio test comparing the fitted model with the saturated model. Evaluation of the fit of the model was carried out on the basis of inferential goodness-of-fit statistics (χ^2 ; Hu & Bentler, 1998) and four other indices: the comparative fit index (CFI), the Tucker-Lewis Index (TLI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). Values close to or greater than .95 are desirable on the CFI and TLI (Hu & Bentler, 1998), while both the RMSEA and SRMR should preferably be lower than .08 (Browne & Cudeck, 1992). Results (see **Figure SC.1**) revealed that although the chi-square ($\chi^2(8) = 23.63, p = .003$) of our model was significant, the other fit indices suggested that the proposed model had a good fit to the data (CFI = .98, TLI = .96, RMSEA = .07, SRMR = .03). Besides, the correlation between PC and PS ($r = .72$) as well as all factor loadings are significant (range: .56-.79 for PC and .74-.75 for PS; $ps < .001$). In sum, the model explained 92% of the variation of variables (coefficient of determination = .92). This result validated this measurement a strong structural validity.

Second, to check whether the criterion validity of the measurement is sound, we compared

our findings to those reported in Lin et al. (2021). Lin et al. (2021) observed (Study 2: Polish Sample) that the correlation between PC and PB was .29 and in the current study was .32. Furthermore, in the study by Lin et al. (2021), the correlation between PS and PB was .20, and in our research, it was .23. All these correlations were significant. Given that in both studies [Study 2 in Lin et al. (2021) and the current study], the same measurements were used to assess parenting perfectionism and parental burnout, we compared the correlation coefficients obtained in these two independent samples. The results indeed revealed no significant differences of PS-PB ($z = 0.446, p = .328$) and PC-PB ($z = 0.469, p = .319$) between correlations observed/found in both samples. The observed consistency supports the criterion validity of the two dimensions of parental perfectionism included in the questionnaire.

5.2.4 Expressive Suppression

Expressive Suppression was assessed using a 5-item questionnaire developed in Polish on the basis of a pilot study conducted among 34 Polish mothers and 29 Polish fathers. They were asked to freely list (in Polish) five emotions that parents should not express in the presence of their children. After the exclusion of synonymous terms, the final list of emotions included rage, irritation, nervousness, anger, and impatience. These emotions were extracted to constitute the Parental Emotional Suppression Scale, which assess the extent to which parents suppressed each emotion when interacting with their child(ren) in the past 3-4 weeks. Items are rated on a 7-point Likert scale from 0 (*never*) to 6 (*always*). Scale scores were calculated by averaging the items. The Cronbach's α of the scale in the current sample was .85. The full-scale along with the English translation can be found in Table SC.2. The items demonstrated a good content validity since the framing of the items align with related measures, including the Perceived Emotional Display Rules in Parenting Scale assessing controlling emotions in parenting (Lin et al., 2021) and the suppression manipulation used in previous studies (Waters et al., 2020).

To further test the structural validity of the measurement, we performed a confirmatory factor analysis on the measurement model (a latent factor indicated by five corresponding items) with STATA 16.1. We followed the same analysis strategy and criteria used for testing the parenting perfectionism scale (BPPS). Results (see Figure SC.2) revealed that the chi-square ($\chi^2(5) = 13.08, p = .023$) of our model was significant, but the other fit indices suggest that the proposed model had a good fit to the data (CFI = .99, TLI = .98, RMSEA = .05, SRMR = .03). Besides, all factor loadings are significant (range: .57-.73.; $ps < .001$). In sum, the model explained 82% of the variation of variables (coefficient of determination = .82). This result validated this measurement a strong structural validity.

5.3 Supplementary Analysis

5.3.1 Handling Outliers

A main factor that could dampen the performance of regression analysis is multivariate outliers (Knief & Forstmeier, 2021). Based on Mahalanobis Distances to a chi-square

distribution with the same degrees of freedom as study variable numbers and its p -value, we found 17 outliers ($p < .001$). After removing outliers, the sample consisted of 422 parents. In this sample, we run the same analyses as described in the method section of the current study ($N = 439$). As can be seen in Table SC.3 the results remained the same as those reported in the results section of the current study.

First, the product-of-coefficients with the bootstrapping method revealed that indirect effect of PC on PB via suppression ($\beta = .05$, $b = 1.38$, bootstrapped SE = 0.57, bootstrapped 95% CI of $b = [0.30, 2.55]$) was significant. This supported our $H1$. Second, simple slope tests revealed that the positive predictive effects of PC on PB decreased to insignificant, as EI increased from low ($\beta = .26$, $b = 6.67$, SE = 1.49, 95% CI of $b = [3.74, 9.60]$) to high ($\beta = .04$, $b = 1.01$, SE = 1.48, 95% CI of $b = [-1.89, 3.91]$). Moreover, the positive predictive effects of suppression on PB decreased as EI increased from low ($\beta = .43$, $b = 11.34$, SE = 1.37, 95% CI of $b = [8.65, 14.04]$) to high ($\beta = .16$, $b = 4.19$, SE = 1.59, 95% CI of $b = [1.07, 7.31]$), although they remained significant. These results supported our $H2-3$. Finally, the index of moderated mediation did not pass through zero (index of moderated mediation = -0.53 with bootstrapped SE = 0.28 and 95% CI = $[-1.18, -0.08]$), which indicates that, in line with $H4$, the indirect effect of PC on PB through suppression was significantly different among participants with low and high EI.

Since none of the analyses described above lead to different findings or conclusions, we chose not to remove outliers from the database and use the original data set for our main analysis. Besides, it should be noted that conceptually, like most mental health indicators, burnout is expected to present an asymmetric distribution, so a deviation is plausible in reality. In addition, this dataset was collected during the pandemic, and the parents participating in the study had to take their extra time to complete the questionnaire, despite the burdens and difficulties they faced during this time (Griffith, 2020). Thus, we are reluctant to dismiss participants' efforts as we believe that the voice of all parents should be expressed.

5.3.2 Further Consideration on Regression Analysis

We performed several preliminary tests and complementary analyses to strengthen our main result reported in the results section of the current study.

5.3.2.1 Assumption of linearity.

We plotted the scatter plot between main independent and dependent variables (see Figure SC.3). None of these plots showed evidence of curvilinear relation between variables that can bias our interpretation of results. This result makes our data eligible to utilize these variables to perform linear regression analysis.

5.3.2.2 Assumption of normality.

We checked the normality of the error distribution for each regression model. Indeed, there is non-normality of residuals for several regression models. It should be noted, however, that deviations from normality arise very often (Blanca et al., 2013). As demonstrated by a recent Monte Carlo simulation study (Knief & Forstmeier, 2021), violating the normality

assumption bears almost no risks in all situations for regression, especially when scientists use a less restrictive Type 1 error to make decision, and data distribution is not extreme distributed (i.e., dataset is mainly composed of multivariate outliers). As we showed in the previous section, even when we removed the outliers, the results remain the same. Therefore, there is no evidence that the violation of normality assumption affects our analysis and interpretation.

5.3.2.3 Assumption of homoscedasticity.

We checked whether the variance of the errors remained constant for each regression model. We indeed observed that this assumption did not hold in several models. To remedy this pitfall, the heteroskedasticity-consistent standard error estimators (specifically, Davidson-MacKinnon estimator was used) in OLS regression was implemented (Hayes & Cai, 2007) for our analyses. The results (see Table SC.4) remain the same as those reported in the test.

First, the product-of-coefficients with the bootstrapping method revealed that indirect effect of PC on PB via suppression ($\beta = .06$, $b = 1.71$, bootstrapped SE = 0.70, bootstrapped 95% CI of $b = [0.41, 3.17]$) was significant. This supported our H1. Second, simple slope tests revealed that the positive predictive effects of PC on PB decreased to insignificant, as EI increased from low ($\beta = .25$, $b = 6.60$, SE = 2.11, 95% CI of $b = [2.45, 10.75]$) to high ($\beta = .04$, $b = 1.07$, SE = 1.75, 95% CI of $b = [-2.38, 4.51]$). Moreover, the positive predictive effects of suppression on PB decreased as EI increased from low ($\beta = .48$, $b = 12.69$, SE = 1.67, 95% CI of $b = [9.40, 15.98]$) to high ($\beta = .18$, $b = 4.80$, SE = 2.08, 95% CI of $b = [0.71, 8.89]$), although they remained significant. These results supported our H2-3. At last, the index of moderated mediation did not pass through zero (index of moderated mediation = -0.61 with bootstrapped SE = 0.33 and 95% CI = $[-1.38, -0.11]$), which indicates that, in line with H4, the indirect effect of PC on PB through suppression was significantly different among participants with low and high EI.

Table SC.1*Sociodemographic Characteristics of the Participants in the Current Study*

Sociodemographic characteristics	<i>N</i> or <i>M</i> [range]
Number of mothers	286 (65.1%)
Mothers' age	$M = 37.96$ ($SD = 7.32$) [21-56]
Fathers' age	$M = 38.33$ ($SD = 7.65$) [22-56]
Number of children in the household	
1 child	170 (38.7%)
2 children	192 (43.7%)
3 children	63 (14.4%)
4 children	14 (3.2%)
Age of the oldest (or only) child	$M = 11.03$ ($SD = 6.45$) [0-35]
Age of the youngest child	$M = 6.35$ ($SD = 4.97$) [0-18]
Hours with child(ren)/a day	$M = 5.19$ ($SD = 2.75$) [1-16]
Paid professional activity (full-time or part-time employment)	378 (86.1%)
Family types	
Two parents	348 (79.3%)
Single parent	32 (7.3%)
Step family	25 (5.7%)
Multi-generational	23 (5.2%)
Other	11 (2.5%)
Level of education	
Primary/basic vocational	14 (3.2%)
Secondary school	103 (23.5%)
Undergraduates	250 (56.9%)
Graduates	72 (16.4%)

Table SC.2*Parental Emotional Suppression Scale*

No.	Item Description (Polish Version)	Item Description (English Translation)
1	Jak często, w ciągu ostatnich 3-4 tygodni, powstrzymywał/a się Pan/i od wyrażania wściekłości podczas kontaktów dzieckiem/dziećmi?	Over the past 3-4 weeks, how often have you refrained from expressing rage while interacting with your child(ren)?
2	Jak często, w ciągu ostatnich 3-4 tygodni, powstrzymywał/a się Pan/i od wyrażania irytacji podczas kontaktów dzieckiem/dziećmi?	Over the past 3-4 weeks, how often have you refrained from expressing irritation while interacting with your child(ren)?
3	Jak często, w ciągu ostatnich 3-4 tygodni, powstrzymywał/a się Pan/i od wyrażania zdenerwowania podczas kontaktów dzieckiem/dziećmi?	Over the past 3-4 weeks, how often have you refrained from expressing nervousness while interacting with your child(ren)?
4	Jak często, w ciągu ostatnich 3-4 tygodni, powstrzymywał/a się Pan/i od wyrażania złości podczas kontaktów dzieckiem/dziećmi?	Over the past 3-4 weeks, how often have you refrained from expressing anger while interacting with your child(ren)?
5	Jak często, w ciągu ostatnich 3-4 tygodni, powstrzymywał/a się Pan/i od wyrażania zniecierpliwienia podczas kontaktów dzieckiem/dziećmi?	Over the past 3-4 weeks, how often have you refrained from expressing impatience while interacting with your child(ren)?

Table SC.3*Regression Coefficients for the Tested Models (After Outliers Removed)*

Regression Models	<i>b</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI of <i>b</i>	
						<i>LL</i>	UL
Outcome: Parental burnout							
Perfectionistic concerns	6.95	1.37	.27	5.087	.000	4.27	9.64
Perfectionistic strivings	2.42	1.36	.10	1.782	.075	-0.25	5.08
F (2, 419) = 26.42***; R ² = .11; adjusted R ² = .11							
Outcome: Expressive suppression							
Perfectionistic concerns	0.14	0.05	.14	2.50	.013	0.03	0.24
Perfectionistic strivings	0.05	0.05	.05	0.93	.355	-0.06	0.16
F (2, 419) = 6.53**; R ² = .03; adjusted R ² = .03							
Outcome: Parental burnout							
Perfectionistic concerns	5.57	1.26	.22	4.42	.000	3.09	8.05
Expressive Suppression	10.24	1.14	.39	9.03	.000	8.01	12.47
Perfectionistic strivings	1.91	1.24	.08	1.54	.125	-0.53	4.35
F (3, 418) = 48.17***; R ² = .26; adjusted R ² = .25							
Outcome: Parental burnout							
Perfectionistic concerns	3.94	1.14	.15	3.46	.001	1.71	6.18
Expressive suppression	7.90	1.04	.29	7.62	.000	5.86	9.94
Emotional intelligence	-9.01	1.07	-.32	-8.46	.000	-11.10	-6.91
Perfectionistic concerns	-3.13	1.05	-.11	-2.98	.003	-5.20	-1.06
× Emotional intelligence							
Expressive suppression	-3.96	1.17	-.13	-3.39	.001	-6.26	-1.66
× Emotional intelligence							
Perfectionistic strivings	2.04	1.11	.08	1.84	.067	-0.14	4.22
F (6, 415) = 48.82***; R ² = .41; adjusted R ² = .40							

Note. *b* = unstandardized regression coefficient. β = standardized regression coefficient. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

*** $p < .001$. ** $p < .01$.

Table SC.4

Regression Coefficients for the Tested Models (Davidson-MacKinnon Estimator)

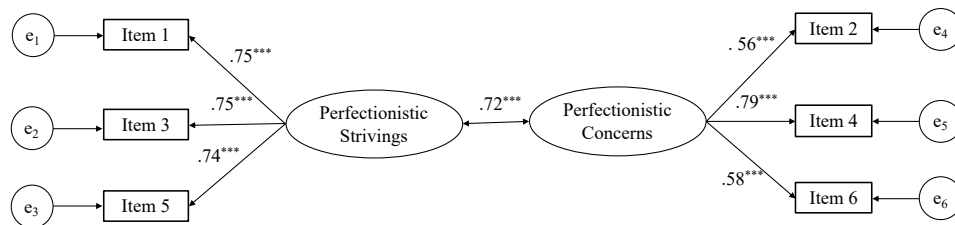
Regression Models	<i>b</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>	95% CI of <i>b</i>	
						<i>LL</i>	UL
Outcome: Parental burnout							
Perfectionistic concerns	7.49	1.69	.28	4.42	.000	4.16	10.82
Perfectionistic strivings	2.24	1.52	.08	1.47	.142	-0.75	5.23
F (2, 436) = 19.92***; R ² = .11; adjusted R ² = .11							
Outcome: Expressive suppression							
Perfectionistic concerns	0.16	0.06	.16	2.68	.008	0.04	0.27
Perfectionistic strivings	0.06	0.06	.06	0.95	.342	-0.06	0.17
F (2, 436) = 7.59***; R ² = .04; adjusted R ² = .04							
Outcome: Parental burnout							
Perfectionistic concerns	5.78	1.50	.22	3.87	.000	2.84	8.72
Expressive Suppression	11.02	1.39	.41	7.96	.000	8.30	13.75
Perfectionistic strivings	1.61	1.35	.06	1.20	.231	-1.03	4.26
F (3, 435) = 30.48***; R ² = .28; adjusted R ² = .28							
Outcome: Parental burnout							
Perfectionistic concerns	3.83	1.35	.14	2.84	.005	1.18	6.49
Expressive suppression	8.75	1.29	.33	6.79	.000	6.22	11.28
Emotional intelligence	-6.39	1.27	-.24	-5.03	.000	-8.89	-3.89
Perfectionistic concerns	-2.77	1.39	-.10	-1.99	.047	-5.50	-0.03
× Emotional intelligence							
Expressive suppression	-3.94	1.38	-.14	-2.86	.004	-6.66	-1.23
× Emotional intelligence							
Perfectionistic strivings	1.22	1.20	.05	1.02	.308	-1.14	3.58
F (6, 432) = 31.31***; R ² = .41; adjusted R ² = .40							

Note. *b* = unstandardized regression coefficient. β = standardized regression coefficient. CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

****p* ≤ .001.

Figure SC.1

The Measurement Model of Lin and Colleagues' (2021) Brief Parenting Perfectionism Scale

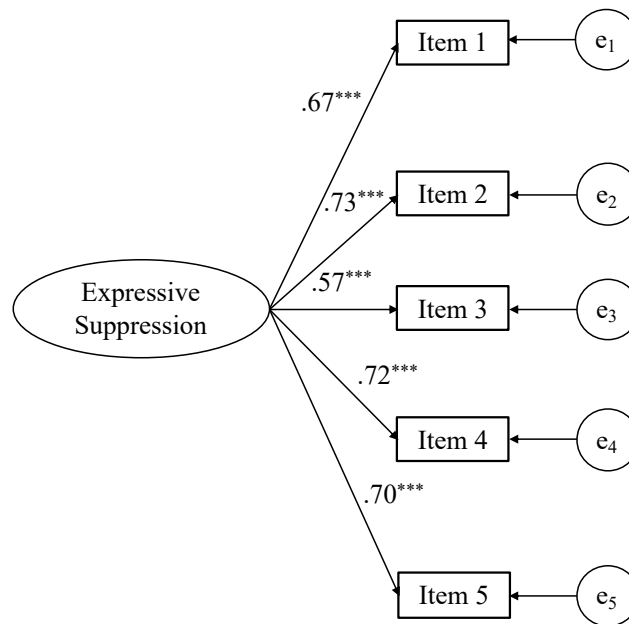


Note. Coefficients presented are standardized linear regression coefficients.

*** $p \leq .001$.

Figure SC.2

The Measurement Model of the Parental Emotional Suppression Scale

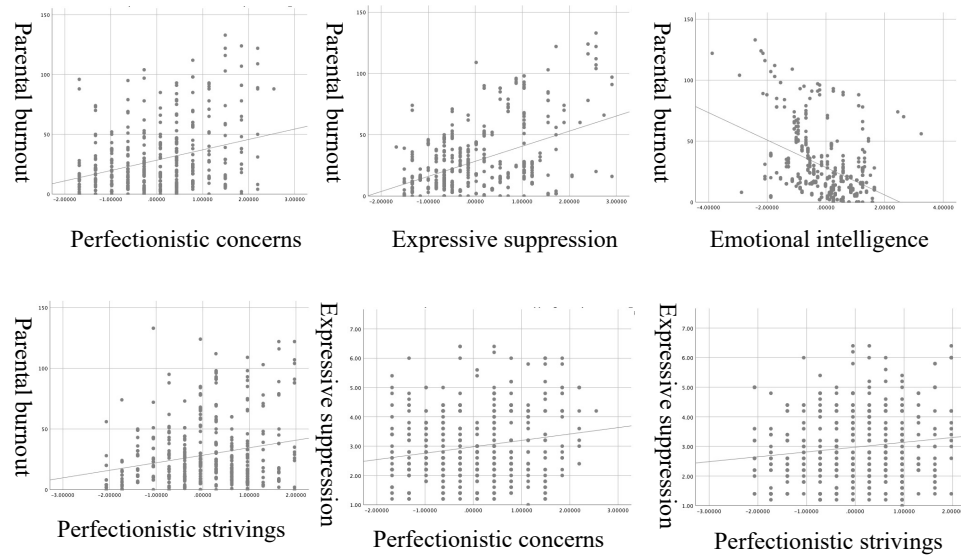


Note. Coefficients presented are standardized linear regression coefficients.

*** $p \leq .001$.

Figure SC.3

Scatter Plot Between Study Variables



Appendix References

Appendix References

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In recent years, many parents have been suffering in their parental role. Some have become so fatigued that they experience parental burnout, an exhaustion syndrome resulting from excessive chronic stress in the parental role. Pioneering studies have shown that although parental burnout is common worldwide, Western (versus non-Western) parents are particularly vulnerable to parental burnout. To explore the reason for this, this thesis offers an overview of contemporary Western parenting culture and identifies three characteristics that may predispose Western parents to burnout: (1) parents cultivate parenting perfectionism; (2) parents perceive their solidarity and social support being eroded; and (3) society is incorporating challenging parenting standards into expectations of correct parenting. It then brings together five empirical studies that demonstrate the associations of these characteristics with parental burnout. Together, this work sheds crucial light on why Western parents are particularly susceptible to parental burnout and offers insights for future research and potential prevention initiatives.

Récemment, de nombreux parents ont souffert dans leur rôle parental. Certains sont tellement fatigués qu'ils souffrent de burnout parental, un syndrome d'épuisement résultant d'un stress chronique excessif dans le rôle parental. Des études pionnières ont montré que, bien que le burnout parental soit courant dans le monde entier, les parents occidentaux (par opposition aux parents non occidentaux) sont particulièrement vulnérables au burnout parental. Pour en explorer les raisons, cette thèse propose une vue d'ensemble de la culture parentale occidentale contemporaine et identifie trois caractéristiques susceptibles de prédisposer les parents occidentaux au burnout : (1) les parents cultivent le perfectionnisme parental ; (2) les parents perçoivent une érosion de leur solidarité et de leur soutien social ; et (3) la société incorpore des normes parentales difficiles dans les attentes d'une parentalité correcte. Cette thèse rassemble ensuite cinq études empiriques qui démontrent les liens entre ces caractéristiques et l'épuisement parental. L'ensemble de ces travaux apporte un éclairage crucial sur les raisons pour lesquelles les parents occidentaux sont particulièrement susceptibles de souffrir d'épuisement parental et offre des pistes pour les recherches futures et les initiatives de prévention potentielles.



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