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HEALTH PROMOTING UNIVERSITIES INITIATIVES:

DEVELOPMENT AND IMPLEMENTATION IN UNIVERSITIES AROUND THE WORLD

Faculté de Santé Publique

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LIST OF ABBREVIATIONS

ACHA	American College Health Association
AR	Action Research
CDC	Centers for Disease Control and Prevention
EEA	European Economic Area
ENHPS	European Network of Health Promoting Schools
ENWHP	European Network for Workplace Health Promotion
EPHPH	European Project of Health Promoting Hospitals
EU	European Union
HPH	Health Promoting Hospital
HPS	Health Promoting School
HPU	Health Promoting University
HPW	Health Promoting Workplace
IUHPE	International Union for Health Promotion and Education
PAHO	Pan American Health Organisation
PRICES	Project on Retrospective, Internationally Comparative Evaluation Study
PUC	Pontificia Universidad Católica (Pontifical Catholic University)
REDCUPS	Red Colombiana de Universidades Promotoras de la Salud (Colombian Network of Health Promoting Universities)
REDCUPS	Red Costarricense de Universidades Promotoras de la Salud (Costa Rican Network of Health Promoting Universities)
REUS	Red Española de Universidades Saludables (Spanish Network of Healthy Universities)
RCT	Randomized Controlled Trial
RIUPS	Red Iberamericana de Universidades Promotoras de la Salud (Ibero-American Network of Health Promoting Universities)

SHE	School for Health in Europe
SRT	Self Review Tool
UNDP	Unites Nations Development Programme
UNESCO	United Nations, Educational, Scientific and Cultural Organisation
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organisation

INTRODUCTION

INTRODUCTION

Public health has long appreciated the value of using specific settings as a place to reach groups of the population. (Dooris, 2013). While historically settings such as schools, workplaces, hospitals or universities were considered as places where traditional health education strategies could be implemented to encourage health-related behaviour change, the Ottawa Charter in 1986 introduced a more systemic way of looking at settings, by emphasizing the role of the environment in building health (WHO, 1986). This recognition of the relevance of the environment gave rise to the concept of the *settings approach* to health promotion (Dooris, 2001b). This approach starts from the idea that the place and context where people live, love and work are not just places to reach these people with messages, but are important and modifiable determinants of health and wellbeing themselves. As such, the physical, organizational, and social context can itself be the object of inquiry and intervention.

Following this approach, health promoters working in different types of organisations changed the focus of their initiatives by promoting health using the settings approach. These settings include schools, hospitals and workplaces (Chu et al., 2000; Langford et al., 2015; Tsouros, Dowding, Thomson, & Dooris, 1998; WHO, 2004). For each of these settings, frameworks for action have been developed to guide their development as health promoting settings (Burton, 2010; IUHPE International Union for Health Promotion and Education, 2009; Okanagan Charter, 2015; WHO, 2004). Such frameworks include the foundations, principles and objectives that a health promoting setting must pursue. For schools, workplaces, cities and hospitals, vast progress has been achieved with the implementation of these frameworks. For other settings, such as prisons, islands, sports stadia, but also universities, the development has been slower, and little information exist on how the settings approach has been implemented (Thompson, Watson, & Tilford, 2018).

The university setting represents a valuable opportunity to improve the health and well-being of the community in which it is based (Dooris, Cawood, Doherty, & Powell, 2010; Leslie, Sparling, & Owen, 2001).

However, as universities are often large and complex organisations, meaningfully promoting the health and well-being of a university community is not an easy task. The adoption of the settings approach can be an appealing way forward. By following the settings approach, a university can embrace a comprehensive "whole university" approach to promoting health that includes students, staff and the wider community (Dooris, Wills, & Newton, 2014).

In the mid-90s, some European universities saw this opportunity and started to implement Health Promoting Universities (HPU) initiatives. Numerous HPU initiatives have been developed worldwide since then. Yet despite the popularity of HPUs initiatives, information about them is scarce. Moreover, as universities across the globe operate in very different cultural, economic, political and societal contexts, the way they apply the settings approach to build a HPU can be fundamentally different depending on the context. However, the scale of the implementation of HPU initiatives in different countries is only scarcely documented, the way in which universities have implemented HPU initiatives is virtually unknown, and the factors that influence the implementation process of a HPU have not been explored at all. All these gaps in knowledge hinder the effective implementation of HPU initiatives. Therefore, we considered it important to investigate the implementation of HPU initiatives in different context in order to provide answers to these questions.

ORGANISATION OF THE THESIS

This thesis contains the results of a series of studies that document the implementation of the HPU concept in different cultural, economic, and societal contexts as well as the factors that influence the process of implementing the HPU approach. These studies are the backbone of the thesis. To position these studies and the questions they address, it is useful to provide background information about the settings approach in health promotion, the development of the HPU concept, and the notion of implementation. On the other hand, the results of the different studies need

to be integrated to draw conclusions and derive implications for research, policy and practice. Hence, the thesis is structured as follows.

Background for the research (Chapters 1, 2 and 3)

Chapter 1 presents the concept of settings approach as a health promotion strategy that focuses on the environment. This chapter also describes the main characteristics of three settings that have been successful in applying this approach: schools, hospitals and workplaces. Chapter 2 describes the potential of universities to function as a health promoting setting, and describes the development of health promoting universities since the inception of the health promoting university concept. Chapter 3 deals with the concept of implementation, and explains how implementation is addressed in health promotion initiatives using the settings approach.

Research objectives (Chapter 4)

Drawing on the information provided in the background section, Chapter 4 presents the overall research question of the thesis and translates this question into four specific objectives. The general research question was to investigate how the HPU approach has been implemented in universities from different cultural, economic and societal contexts. To address this question, a first specific objective was to review the current state of the implementation of the HPU initiative in different contexts. The second specific objective was to explore the implementation of the HPU approach in a number of universities worldwide. The third specific objective was to explore the factors that influence the development and implementation of the initiative. The fourth and final specific objective focuses on a particularly challenging key aspect of HPU initiatives, namely the participation of the university community members in HPU initiative; the objective was to explore the level of member participation in HPU initiatives. For each of these objectives, a research approach and matching study designs were chosen.

Research studies (Chapters 5 through 8)

To assess the current state of the implementation of HPU initiative in different contexts as documented in the research literature (objective 1), a systematic literature review was performed. The results of this review is provided in Chapter 5. The content of this chapter was published as an article in the journal *Global Health Promotion*.

Chapter 6 addresses the question how universities in different countries implement the HPU initiative (objective 2). To investigate this issue, an online survey was held among universities worldwide to explore how they implemented the HPU initiative. The results revealed four profiles of implementation with different levels of progress in the implementation. These results were published in *Health Promotion International*.

Chapter 7 focuses on the factors that influence the implementation of a HPU initiative (objective 3). It presents the results of a qualitative study that involved interviews with key informants of universities to explore these factors. Five main factors were identified, along with a number of moderating factors.

Chapter 8 deals with the participation of the university community in the HPU initiatives. This chapter was based on additional information obtained from the participants in the survey study.

Discussion and conclusion (Chapter 9)

The ninth and final chapter summarizes and discusses the main results of the studies presented in the four preceding chapters. Apart from an integration of these findings against the backdrop of the theoretical and conceptual base, it also considers the strengths and limitations of the different studies, and draws conclusions for further research, policy and practice related to HPU.

CHAPTER 1

THE SETTINGS APPROACH IN HEALTH PROMOTION

1.1. THE SETTINGS APPROACH IN HEALTH PROMOTION

In recent decades, the burden of health in the world has dramatically changed. While in the second half of the 20th century the main causes of death at global level have shifted from infectious to non-communicable diseases, more recently there has been an upsurge of newly emerging communicable diseases such as HIV/Aids, H1N1 influenza, Ebola in West Africa and the Zika virus in the Americas, as well as an increasing anti-microbial resistance, leading to a double burden of communicable and non-communicable disease. At the same time, the growing prevalence of multi-morbidity and the widening health inequalities pose additional threats to the health of the population. To address these threats, it is necessary to reorient health services towards more preventive, people-centred and community-based approaches. A change from single health interventions to preventive interventions considering the environment, lifestyle and people's behaviour is required (Bloch et al., 2014).

Health promotion plays a key role in this new scenario. Introduced as a response to an increasingly medicalised and disease-oriented public health and health care system, it is defined in the Ottawa Charter (WHO, 1986) and in the revised Health Promotion Glossary (WHO, 1998) as *the process of enabling people to increase control over, and to improve, their health*. Health promotion moves beyond a focus on individual behaviour towards a wide range of social and environmental interventions. It represents a comprehensive social and political process, and not only embraces actions directed at strengthening the skills and capabilities of individuals, but also action directed towards changing social, environmental and economic conditions so as to alleviate their impact on public and individual health. To that effect, the Ottawa Charter (WHO, 1986) proposes three basic strategies: *advocacy* for health to create the essential conditions for health indicated above; *enabling* people to achieve their full health potential; and *mediating* between the different interests in society in the pursuit of health. These strategies are supported by five priority action areas: (1) Building healthy public policies; (2) Creating supportive environments for health; (3)

Strengthening community action for health; (4) Developing personal skills; and (5) Re-orienting health services.

The Ottawa Charter also specifies that comprehensive approaches, i.e. those that use combinations of the five strategies, are more effective than single-track approaches. Therefore, health promotion action must ideally be facilitated in schools, homes, universities, work places and community settings. This is because health is created and lived by people within the settings of their everyday life: where they learn, work, play and love (WHO, 1986). *A setting for health* is defined as a place or social context in which people engage in daily activities. There, environmental, organisational and personal factors interact to affect health and well-being. A setting for health is also where people use and shape the environment, thus creating or solving health-related problems (WHO, 1998). As such, these settings for health offer practical opportunities for the implementation of comprehensive strategies.

The role of settings to improve health

Health promotion has long appreciated the value of using settings as channels to reach populations (Dooris, 2013). Settings such as schools, workplaces, hospitals or universities have for a long time been used to implement traditional health education strategies aimed to a "captive" audience of individuals (Whitelaw et al., 2001). Examples of such programmes are: education for smoking cessation at the workplace, promotion of physical activity at schools or promotion of healthy sexual behaviours in universities. In this type of strategies, the "passive" model of health predominates (Whitelaw et al., 2001), in this sense that is assumes that the root of the health problem and hence the solutions depend exclusively on the individual.

Although these strategies have been and still are widely used, their effectiveness to promote health and well-being has been criticized (Hawe, Shiell, & Riley, 2009). One element of criticism is that they attempt to implement standard programmes without considering the context. This lack

of adaptation to the setting's context carries many unfavourable consequences, as the practical reality is often very different from the theoretical ideal (Van Daele, Van Audenhove, Hermans, Van den Bergh, & Van den Broucke, 2014). This may lead to lower effectiveness or even failure due to an incongruence between the programme and the setting's mission (Whitelaw et al., 2001). Another limitation is the limited scope and the short-term planning of these strategies, which means their results are usually short lived (Hawe et al., 2009). Finally, health education in settings is often ineffective in reaching the most disadvantaged groups. Disadvantaged individuals, such as unemployed, youngers excluded from school or people without access to primary care, are often not part of a specific setting (Hawe et al., 2009). By excluding them from benefiting from actions, the latter increase health inequalities, which goes against the values of health promotion.

Given these limitations, the Ottawa Charter sought to improve traditional health education strategies focusing on changing behaviours through developing personal skills in settings. Instead, it proposed a comprehensive approach focusing on the creation of a supportive environment to health. The recognition of the importance of the environment for health gave rise to the concept of the *settings approach to health promotion*.

The settings approach to health promotion

The settings approach goes beyond the instrumental use of the place where people spend their daily lives to promote health. It embraces the idea that the place and context are themselves important and modifiable determinants of health and well-being (Dooris, 2013). Consequently, using a settings approach involves more than simply tweaking a standard intervention to make it fit in a particular setting (Poland, Krupa, & McCall, 2009), and -unlike the educational approach- considers the physical, organisational, and social context itself as are the object of inquiry and intervention (Dooris, 2001b). In addition, it attaches important value to

participation, equity and sustainability, thus answering the critiques that have been voiced with regard to other approaches (WHO, 1998).

Reducing the focus on individuals does not mean, however, that individuals are ignored; individuals' behaviours and decision making processes concerning their health remain ultimate objectives, yet the emphasis of the actions is more clearly placed on settings and ecological factors that shape, limit or enhance those behaviours and decisions (Kokko, Green, & Kannas, 2014). Because each setting is unique by construction and history in a particular time and place, the factors that create an ecological reciprocity between behaviours and the environment within a setting depend on the setting in question (Kokko et al., 2014).

It is important to note that the settings approach should also consider the link between health promotion and the core business of a setting. The latter refers to the main activity or purpose for which an institution has been created. For example, the core business of a school is to teach and support learners, while that of a company is to produce goods or services. The core business of a setting is often an important determinant of health, and should as such be addressed. At the same time, the health of the individuals may also influence the core business of the setting (Torp, Kokko, & Ringsberg, 2014). It is necessary to know the position of health promotion relative to the core business of the setting in question, which shapes the incentives that are required to assure the cooperation of the setting (Kokko et al., 2014).

Conceptual underpinnings of the settings approach

The settings approach was introduced in the Ottawa Charter and further developed in the subsequent Global Health Promotion conferences of Sundsvall in 1991 and Jakarta in 1997 (WHO, 2009). It is supported by a variety of theories including the socio-ecological theory, salutogenesis, system theory and organisational development. The engagement with such theories guides the design, implementation and evaluation of a HPU initiative (Dooris et al., 2014). As such, three interrelated conceptual paradigms characterize the settings approach to health promotion:

- *The ecological model of public health* proposes that health is determined by the interaction of different factors (environmental, organisational and personal). This view represents a radical shift of focus in three ways: from illness towards salutogenesis, from individuals towards populations, and from simple health problems towards a more holistic view of health (Dooris, 2006b; Poland & Dooris, 2010).
- *The systems perspective* is based on the General System Theory that recognises that a system cannot be reduced to a series of parts functioning in isolation, but that, in order to understand the whole, it is necessary understand the interrelationship between these parts (Anderson, 2016). Considering the settings approach, there exist a complex dynamic between the components of the setting that affect health. Therefore, working on a single health issue or just with a specific group of people is not enough.
- *The whole system focus*, which seeks to manage change in the entire setting. It uses multiple strategies to embed health and well-being within the routine life, mission and culture of the setting (Dooris, 2006b, 2013).

Healthy settings or health promoting settings?

At a conceptual level, the concepts of *healthy setting* and *health promoting setting* are used almost interchangeably in the literature to refer to the implementation of the settings approach (Dooris et al., 2014; Dooris, 2006; Taylor, Saheb, & Howse, 2018). Kokko and co-workers (2014), criticises the use of the concept of *healthy setting* arguing that word *setting* refers to something that is not alive, so the use of the adjective *healthy* is incorrect. The authors propose that a setting can be healthful or health promoting, but not healthy (Kokko et al., 2014). Considering that a setting is healthy would suggest the possibility of a static or ideal setting with a passive role. Yet a setting cannot be permanently healthy because the circumstances change continuously and decisions must always be made to

optimise health. On the other hand, the adjective *healthy* applied to people could be used in individual based initiatives, but not in initiatives with settings approach.

In contrast, the term *health promoting setting* implies dynamism of the processes for continuously adapting the setting towards more health promoting circumstances. This is better aligned with the principles and nature of health promotion. Moreover, Dooris (2006), suggests that the term *health promoting setting* has a more straightforward focus on people, with an emphasis on the potential health effects of a setting (Dooris, 2006a). Pelikan and colleagues (2001), referring to hospitals, also make the difference between *healthy* and *health promoting setting* mentioning that healthy is a static term, while health promoting refers rather to the process character of initiatives (Pelikan, Krajic, & Dietscher, 2001).

Despite the differences between the two concepts explained above, the literature includes setting based initiatives that use either of the two terms. In this thesis, the concept of *health promoting setting* will be use to refers to settings based initiatives, even if the references included use the term *healthy setting*.

Evaluation of the settings approach

To determine if the settings approach contributes to the promotion of health, it is necessary to give *evidence* of its *effectiveness*. This requires the use of *evaluation*. Evaluation can be defined as the systematic examination and measurement of the characteristics of an intervention or programme to produce knowledge. The traditional positivist approach to producing evidence in public health focuses on the use of quantitative data, linear causality and scientific reliability and validity. Based on a hierarchy of evidence, it holds that the randomized controlled trial (RCT) must be considered as the "gold standard" for evaluating programme effectiveness (Wagner, 2002). However, this approach is not always compatible with the complex and multidisciplinary nature of health promotion (Dooris, 2006b; Dooris et al., 2007; Pelikan et al., 2001). In response to this challenge, the

combined use of quantitative and qualitative data has been proposed (Aro, Van den Broucke, & Räty, 2005). Combined methods better allow to capture the effects of a health promotion intervention without losing sight of the richness and diversity of such programmes (Aro et al., 2005; Stewart-Brown, 2006; Wagner, 2002).

Evaluation studies of initiatives using the settings approach are relatively rare, which is probably due to the many challenges of generating convincing evidence about the effectiveness of such initiatives. The main challenges that have been reported in this regard concern the pressure to demonstrate results of interventions in terms of their impact on health, the translation of the complex and holistic concepts of the settings approach into real-life practice, and the difficulty to demonstrate the contribution of the approach to informed decision-making (Dooris, 2006a, 2006b; Whitehead, 2004a). A number of specific challenges have hindered the generation of evidence:

- *Conceptual understanding versus real-life practice.* The implementation of the concepts of the settings approach into real-life practice can be problematic for a number of reasons. Firstly, there is a continuing confusion between "health promotion *in* the settings" and the settings approach to health promotion (Whitelaw et al., 2001). Secondly, it is often the difficult to translate the philosophy of the settings approach into tangible actions. Thirdly, the approach is implemented differently according to the type of setting. For example, changes at the whole system level are easier to achieve and to demonstrate in smaller and more formal environments (e.g. schools) than in larger and more complex ones (e.g. universities). Finally, there are differences in the degree of formality and coordination that exist between different types of settings. For example, schools have accreditation and coordination criteria at national and international levels, while other settings, such as universities, have not yet found agreements around those issues (Dooris, 2006a, 2006b).
- *Challenging the focus on diseases and single risk factors.* Despite the comprehensive nature of the settings approach, the medical model still

prevails as a standard to construct the evidence base, and there remains a tendency among decision makers, funders and the larger public to value the contribution of health promotion in terms of changes in the prevalence of diseases or specific risk factors. As such, it is easier to evaluate individual-based than settings-base initiatives, and there is more funding available for research that is capable to show observable results (Dooris, 2006a, 2006b). For the evaluation of settings-based initiatives it is important to challenge this focus on disease and individual risk factors, and to develop alternatives that are capable to evaluate systems level changes.

- *The complexity of evaluating the whole system approach.* In order to remain consistent with its theoretical underpinnings as outlined above (i.e., the ecological model, systems perspective, and whole system focus) an evaluation of a settings-based initiative needs to consider the complex changes processes of the system. This is a complex exercise. To capture the added value of the whole system approach, an evaluation must look at the whole setting and attempt to map and understand the interrelationship, interactions and synergies between the different groups and components of the system, as well as the health issues that are present (Dooris, 2006b; Whitehead, 2004a).

Alternative approaches for the evaluation of settings-based initiatives

Given the challenges to evaluate settings-based initiatives, different alternatives have been proposed. Dooris et al., propose that both *critical realism* and *complexity theory* are theoretical perspectives that may help to create evidence regarding the value of settings-based initiatives (Dooris et al., 2007). *Critical realism* focuses on the use of theory to discern the logic behind the mechanisms, while *complexity theory* focuses more on innovation and adaptation. The critical realism being a theory-driven approach of evaluation is rooted in the idea that any intervention or action in a programme is associated with a theoretical reflection or hypothesis about a cause-effect relationship. Programme theory comprises a set of interventions, each of which can be described and evaluated individually

following a logical model about "what works, how, under which conditions and for whom" (Bloch et al., 2014; Dooris et al., 2007).

An alternative approach that has also been suggested to evaluate the whole system approach is *Action Research* (AR). AR is a method that accords well with the main principles of health promotion, such as empowerment and participatory learning. AR builds on trust and equity, and is characterized by working with community members in all aspects of research (Dooris et al., 2007). According to Whitehead (2004), this method represents an opportunity that has not been sufficiently considered by experts in health promotion (Whitehead, 2004a).

A particular form of action research is *empowerment evaluation* (Fetterman, Kaftarian, & Wandersman, 1996). Empowerment evaluation is an evaluation approach, which aims to mainstream evaluation as a part of the planning and management of the program, and therefore provides program stakeholders and participants with tools for assessing the planning, implementation and self-evaluation of their program. In line with the concept of empowerment, the empowerment evaluation approach redefines the professional's role as that of a collaborator and facilitator, rather than an expert and counsellor. The aim of the evaluation thus is not only to provide data about the program, but to strengthen the stakeholders' evaluation capacity. Building the capacities of participants to evaluate their own programs involves several steps: (i) determining where the program stands, including strengths and weaknesses; (ii) focusing on establishing goals with an explicit emphasis on program improvement; (iii) helping participants determine their own strategies to accomplish program goals and objectives; and (iv) helping program participants determine the type of evidence required to document progress credibly toward their goals (Fetterman et al., 1996).

Different health promoting settings

The central theme of this thesis is the University as a health promoting setting. In this sense, the university shares certain characteristics, principles and values with other environments that promote health such as schools,

hospitals and workplaces. Universities and schools are both institutions whose core business is based on learning. On the other hand, universities also function as a workplace for both academic and administrative staff. Finally, some universities provide training in health and medicine and may be attached to a hospital.

Therefore, the next sections will describe the main characteristics of these three health-promoting setting: *schools, hospitals* and *workplaces*. Other settings, although less related to universities, will be mentioned at the end of the section.

1.2. HEALTH PROMOTING SCHOOLS

Childhood is a critical period where the experiences related to health are associated with risk factors and outcomes in adult life (Poulton et al., 2002). Many diseases which currently represent a great burden to nations around the world have their roots in childhood or adolescence (McGill et al., 2000). Therefore, the children's health is of great importance for public health and society in general (Gore et al., 2011). Schools are the settings in which children spend most of their daily time. As such, they can contribute to the children's health and well-being by developing school-based health programmes. Such programmes are supposedly the most effective investment that governments can make to simultaneously improve health and education (WHO, 1996, 2018). Healthy children learn and perform better and obtain better academic results, which is also associated with improved health later in life (Suhrcke & de Paz Nieves, 2011).

For several decades, schools have been considered as favourable environments for the implementation of health promotion strategies. In this way, many schools teach about alcohol, sex, smoking, drugs, physical health, exercise and bullying to students during their school career (Nabe-Nielsen, Krølner, Mortensen, Jørgensen, & Diderichsen, 2015). However, the launch of the Ottawa Charter (WHO, 1986) gave grounds for schools to adopt a more holistic approach to promote health. This holistic view provides the basis of the *Health Promoting Schools (HPS)* initiative. HPS

goes beyond the traditional use of the school as a setting to provide health education, and instead follows the principles and values of the settings approach to health promotion (Langford et al., 2015).

Development and definition of the Health Promoting Schools

The origin of Health Promoting Schools

The importance of health education for children was highlighted in the beginning of the 90s at the World Conference of Education for All (United Nations Development Programme (UNDP), United Nations Educational Scientific and Cultural Organization (UNESCO), United Nations Children's Fund (UNICEF) United Nations Children's Fund, & The World Bank, 1990). At that occasion, it was proposed that schools could develop actions that contribute to children's health, including: (i) The planning of health education in the environment of students' families and wider community; (ii) Making the curriculum relevant to different age groups and embrace the socio-cultural context concerned; and (iii) Making teachers instrumental in promoting the health of people in school and their communities. Later during the 90s, the joint work between the WHO, the European Commission and the Council of Europe formed the basis for the development of first HPS initiatives (Stewart-Brown, 2006).

Definition of a Health Promoting School

Individual and structural elements are both key to achieving better health. Schools have many possibilities to contribute to both with a view to improve the health of pupils and of the wider community. At the individual level, the school can facilitate the acquisition of knowledge and skills for decision-making and guide pupils towards adopting a healthy lifestyle. At the structural level, the school can provide a supportive and safe physical and social environment that is conductive to making healthy decisions. A HPS is a school that acts at both of these two levels and develops alliances

with the external community members to positively influence the community in which students' health choices are made (Parsons, Stears, & Thomas, 1996).

Stewart-Brown (2006), adds to the previous definition that a HPS develops links with the community taking into account the social and physical environment (Stewart-Brown, 2006). Other authors add that a HPS also aims to foster health and learning by engaging health and education stakeholders to provide positive experiences, conditions, services and structures that promote and protect the health of students, staff and the wider community (Wagner, 2002; WHO, 1996).

Framework for action for Health Promoting Schools

In 1995, the WHO launched the framework for action for HPS, based on the Ottawa Charter. This framework served as a guide for schools to become a HPS by focusing on six areas of action (Stewart-Brown, 2006; WHO, 1996):

1. *School health policies* are the clearly defined and broadly promulgated directions which influence the school's actions and resources allocation for areas which promote health.
2. *Physical environment* refers to the buildings, grounds, and equipment for indoors and outdoors activities and areas surrounding the school.
3. *Social environment* refers to the quality of the relationships among staff, among students and between staff and students.
4. *School/community relationships* are the connections between the school and the students' families plus the connection between the school and key local groups who support and promote health.
5. *Personal health skills* refer to the formal and informal curriculum whereby students and school community members gain age-appropriate knowledge, attitudes and skill in health to become more autonomous and responsible in individual and community health matters.

6. *School health services* refers to the services that have a responsibility for child and adolescent health care and education, through the provision of direct health services to students and in partnership with schools.

In 2009, the International Union for Health Promotion and Education (IUHPE) launched a new guideline for HPS (IUHPE, 2009). This guideline reinforced the six areas of action mentioned above and added the conditions that must fulfilled before a HPS can be implemented. Specifically, for a HPS to start in the best possible conditions, it is necessary to: (i) develop a supportive government or local authority policy for HPS and to achieve administrative and senior management support; (ii) create coordination groups that group representatives of all those involved (students, parents, teachers and community members); (iii) analyse all health-promoting actions already in place based on the six areas of action presented above; (iv) define realistic objectives according to the available resources, design a work plan to work on those objectives and to celebrate the achievements; (v) develop a document that symbolises the commitment of the school and assign it a visible place to reinforce it daily; and offer opportunities to attend professional development programmes to staff and community partners who participate in the initiative.

The framework for action for HPS, serves as a guide for schools, but can be adapted to the context (McIsaac, Storey, Veugelers, & Kirk, 2015). That is the reason why the HPS framework is more focused on key processes than on specific activities.

A school can be considered as a HPS when it meets certain characteristics. In this sense, a HPS is characterized by (Langford et al., 2015):

- *School curriculum:* Health promotion and health education topics are incorporated in the formal curriculum of the school.
- *Ethos and/or environment:* Promotion of health and well-being of students and of staff are addressed through the informal curriculum,

which encompasses the values and attitudes promoted within the school and the physical environment and setting of the school.

- *Families and/or communities:* The school recognises that children's health is influenced by several factors. As some of these factors are outside the school the school collaborates with families, outside agencies, and the wider community to address them.

Health Promoting School initiatives and networks

Since the launch of the framework for action, several HPS initiatives have been implemented around the world. Many of these which have been organized in networks. In general, health promoting networks represent opportunities for interaction and for facilitating the exchange of information, resources and experiences (WHO, 1996).

The most extensive HPS network is the European Network of HPS (ENHPS), which exists since 1991. Currently the official name of this network is *Schools for Health in Europe* (SHE). It has members in 30 countries across Europe (SHE, 2018). Other HPS networks and initiatives also exist outside the European region. In the Americas the Pan American Health Organization (PAHO) has led the initiative to set up a network that includes countries from Latin America and the Caribbean since 1995 (Ippolito-Shepherd, Cerqueira, & Ortega, 2005; PAHO, 2003). In Canada, HPS have been implemented since 2006 (McIsaac et al., 2015), in Australia since 1997 (Booth & Samdal, 1997; Rissel & Rowling, 2000), in the Asia-Pacific region and South Africa since 1994 (Struthers, Wegner, De Koker, Lerebo, & Blignaut, 2017; WHO, 1996).

Evaluation of Health Promoting Schools

HPS initiatives follow the settings approach, which means they pursue holistic goals referring to the promotion of the health and well-being of students, staff and wider community. Therefore, the impact or effect of a HPS initiative cannot be measured in terms of disease prevention or

behavioural changes only, but should be more focused on the provision of services and process (Parsons et al., 1996; Stewart-Brown, 2006).

In 2001, a list of criteria for establishing the effectiveness of HPS was proposed at the conclusion of the IUHPE World Conference (Wagner, 2002). According to this list, a HPS may be considered as effective if it:

- Causes positive change in behaviour and/or organisation
- Improves learning outcomes
- Increases participation of all those involve and develops partnership
- Increases the empowerment of teachers
- Obtains external recognition and the approval from official bodies
- The initiative is normalized and institutionalized
- Is based on health promotion principles.

While this list of criteria can guide the generation of evidence of effectiveness of HPS, the process of producing such evidence is still under way. In this process, some authors have compiled the results of several initiatives that give an idea of the evidence that schools have generated so far.

The impact of Health Promoting Schools

A review of 12 studies evaluating HPS reported that the initiatives had beneficial effects on the social and physical environment, the provision of services, and staff development (Lister-Sharp, Chapman, Stewart-Brown, & Sowden, 1999). Favourable results were also reported for the effects on students' mental and social well-being, such as greater self-esteem and reduced bullying. With regard to health and health behaviours, however, the results were less consistent, in the sense that only in some studies improvements were reported (Lister-Sharp et al., 1999). Despite these limitations, the authors concluded that the evidence supporting the HPS the effectiveness of HPS is promising and that a multifaceted approach combining a classroom programme with changes to the school ethos and/or

environment and/or with family/community involvement is likely to be most effective.

In 2006, Stewart-Brown published a synthesis on the effectiveness of the HPS approach. This synthesis gathered the results of several systematic reviews that covered topics associated with health promotion in schools (Stewart-Brown, 2006). The results showed that the most effective programs were those that promoted mental health (including preventing violence and aggression), which were of long duration, high intensity and involved the whole school. Regarding the promotion of physical activity and healthy eating programs, these are only effective when they include changes in the school environment. On the other hand, the results showed that the less effective programs were those focused on preventing the use of substances, the prevention of suicide, depression, stress and anger. Some studies found that peer-delivered health promotion interventions were more effective than those led by teachers, and this approach was highly valued by young people. None of the studies included in this synthesis evaluated the cost effectiveness of health promotion intervention programs.

A subsequent systematic review of 67 studies looking at the effects of implementing the HPS framework (Langford et al., 2015), found modest effects in improving nutritional status, eating habits, physical activity and fitness, and reducing smoking and bullying. Little or no positive effects were found for other health issues, such as depression, drugs use, violence or sexual health. The authors mentioned that although the effects are limited they are potentially important at a population level. The review also criticised the methodology of many studies, which were often based on self-reported data, a weakness that had already been identified in the previously mentioned review study (Lister-Sharp et al., 1999). Furthermore, no evidence was found for the educational impact of the HPS initiatives. This is disappointing because a HPS has more possibilities to get the support from educators if they can be are convinced that it will contribute to the core business of the school.

Factors influencing the implementation of Health Promoting Schools

To understand the effects of the HPS, it is important to consider the factors that are involved in the implementation of a HPS. The main enabling factors in the implementation of HPS initiatives are related to political leadership provided by the school authorities and organisational capacity, while potentially hindering factors are more structural and systemic, and refer to political and financial obstacles (McIsaac, Read, Veugelers, & Kirk, 2013; McIsaac et al., 2015).

Building on the idea that a HPS goes beyond changing behaviours, Sandal and Rowling (2011) identified eight key processes to implement a HPS (Samdal & Rowling, 2011): policy and institutional anchoring; leadership and management practices; preparing and planning for schools development; professional developing and learning; relational and organisational context; student participation; partnership and networking; and sustainability. Considering these factors, McIsaac (2015) reported that schools are at different levels of implementation for each of them. Schools that report a higher level of implementation of the key processes tend to have more support of the local authorities, participate in the planning for development and action in health promotion, have supportive leadership and management practices that inspired HPS action, and have a positive organisational context and reinforcement from successful community partnership (McIsaac et al., 2015).

Conclusions

HPS initiatives aim to combine health and learning to promote and protect the health of students, staff and wider community. Based on the settings approach, a framework for action was developed that identifies the main areas of action and the conditions that must be ensured before implementation. In search for the evidence of the effectiveness of HPS, some studies focus more on the outcomes and others more on the processes. A combination of both approaches could strengthen the evidence regarding the HPS initiatives. Understanding the factors that influence the success of the HPS initiatives would also allow the identification of priorities based on

the specificity of each situation. Besides this, the available evidence suggests that HPS initiatives are more likely to reach positive results when they are comprehensive and multifactorial, and when they involve activities in more than one domain, which supports the idea of a whole systems approach

1.3. HEALTH PROMOTING HOSPITALS

The traditional core business of hospitals has always been to care for patients and to treat diseases (WHO, 1997). However, the increasing prevalence of lifestyle-related and chronic diseases makes it necessary to enlarge this biomedical focus to a more holistic approach, which goes beyond physical health to improve the overall well-being of people (Whitehead, 2004a; WHO, 2004). This change of perspective has stimulated hospitals around the world to draw on the concept of health promotion to create dynamic and complex environments that help to improve the health and well-being of the population (Pelikan et al., 2001).

There are many reasons why health promotion should pay attention to the hospital setting. Firstly, there are a large number of patients suffering from chronic diseases who require support to cope with their diseases and change their lifestyle. Secondly, hospitals that offer a health promoting working environment are more successful in recruiting and retaining staff and reducing absenteeism. Thirdly, health promotion interventions are relatively inexpensive yet can help to reduce the length of stay at the hospital, reduce the chance of complications, and increase patient satisfaction. Fourthly, more investment in health promotion can reduce the burden and expenses of the tertiary health system, which can increase its sustainability (Weisz, Haas, Pelikan, & Schmied, 2011; WHO, 2007b; Ziglio, Simpson, & Tsouros, 2011).

The relationship between hospitals and health promotion is made explicit in the Ottawa Charter (1986), which mentions the reorientation of health services towards health promotion as one of its five areas of action.

This can be achieved by adopting the *health promoting hospitals (HPH)* approach. This approach encourages hospitals not only to be a location for health promotion activities but to consider themselves as a social entities that need to be more health oriented (WHO, 2007b).

Development and definition of the Health Promoting Hospitals

The origin of Health Promoting Hospitals

The first HPH initiative was implemented at the *Rudolfstiftung* hospital in Vienna, Austria in 1989 (Pelikan, Gröne, & Svane, 2011). The evaluation of this first experience led to the creation of documents that served as a model for other initiatives in different countries. Based on this model, the first international HPH network was founded in 1990. This network mainly grouped hospitals in European countries and was jointly coordinated by the Euro-WHO and the Ludwig Boltzmann Institute in Austria (Pelikan et al., 2001). In 1993, the European Project of Health Promoting Hospital (EPHPH) was launched. This project was considered as a proof that the concept of a HPH is plausible, acceptable and feasible for a variety of hospitals and health systems (Pelikan et al., 2001, 2011).

Definition of a Health Promoting Hospital

A HPH has been defined as an hospital organisation that aims to improve health gain for its stakeholders by incorporating concepts, values and standards of health promotion into its organisational structure and culture (WHO, 2007b). The objective of a HPH is to increase the quality of the health care services, to provide good work and living conditions for staff and to improve the satisfaction of patients, staff and relatives. Embracing the settings approach, a HPH also seeks to develop links with the community to promote a comprehensive concept of health and to take care of the environment (WHO, 2007b).

Framework for action for Health Promoting Hospitals

The strategic and ethical directions for HPH have been shaped and renewed over the years by different documents such as the *Budapest Declaration* (WHO, 1991) and the *Vienna recommendations* (WHO, 1997). With these two documents, HPH were encouraged to increase patient participation, involve all professionals, foster patients' rights, and promote a healthy environment within the hospital.

In 2001, following the 9th International Conference on HPH in Copenhagen, the WHO established five core standards for HPH. Each of these standards consists of a standard formulation, a description of an objective, and a definition of sub standards described in the original document (WHO, 2004). These standards are to be used as a tool to systematically assess, monitor and improve the quality of health promotion in hospital (WHO, 2004). The five *Standard for Health Promotion in Hospitals* are the following:

- *Standard 1* demands that a hospital has a written policy for health promotion. This policy must be implemented as part of the overall organisation's quality system and aim to improve health outcomes. The policy must be aimed at patients, relatives and staff.
- *Standard 2* describes the organisations' obligation to ensure the assessment of the patients' needs for health promotion, disease prevention and rehabilitation.
- *Standard 3* states that the organisation must provide the patients with information on significant factors concerning their disease or health condition, and that health promotion interventions should be established in all patients' pathways.
- *Standard 4* gives the management the responsibility to establish conditions for the development of the hospital as a healthy workplace.
- *Standard 5* deals with continuity and cooperation, demanding a planned approach to collaboration with other health service sectors and institutions.

A manual with the instructions for the use and application of the standards was published in 2006 (Groene, 2006). It has a self-assessment character and aims to clarify areas for improvement, give participants ownership and improve the communication between supervisors and subordinates (Groene, 2006). The standards have been used to capture evidence on the effectiveness of HPH initiatives in different contexts (Amiri, Khosravi, Riyahi, & Naderi, 2016; Groene, Jorgensen, Fugleholm, Møller, & Garcia-Barbero, 2005; Miseviciene & Zalnieraitiene, 2013; Pelikan, Gröne, et al., 2011; Põlluste et al., 2007).

The framework for action given by these standards serves as a guide for hospitals in their way to become a HPH. However, there will always be heterogeneity between the different regions and HPH networks due to the variations in the context. While the framework can guide, a universal standard is difficult to achieve (Whitehead, 2004a). This is also because the focus of the HPH initiatives is to better meet the needs of the people. Despite these differences, however, a HPH is characterized by (Pelikan et al., 2001):

- *Physical and social environment*: The hospital setting provide conditions to promote the health of all those involved (patients, staff and visitor) by managing resources and waste, creating aesthetic and functional environments, ensuring smoke-free spaces, developing competences by education and training and enlarging possibilities for participation.
- *Workplace:* The health and well-being of hospital staff is a priority. This may include reducing risk and promoting potential of staff, offering training in health promotion and promoting active participation.
- *Provider of health services:* The hospital inserts health promotion principles into its routine service provision. In this way, the focus is to reorient towards a more health gaining approach, quality of life and overall well-being, and to offer more opportunities for participation of patients and relatives.

- *Training, education and research centre*: By including the principles of health promotion in the education and training of clinicians, nursing and other hospital personnel.
- *Change agent:* The hospital promotes health in the community in which it is located by establishing alliances, contributing to health reporting, organising specific action programmes in cooperation with schools, enterprises, supermarkets and neighbouring.
- *Health promoting organisation:* the hospital uses quality approaches to develop strategies to become an organisation that adapts to contexts changes and carries out decisions processes according to the principles of good management and good change management.

Health Promoting Hospital initiatives and networks

Several HPH initiatives have been implemented around the world, many of which have been organized in networks. The HPH networks have contributed to developing a knowledge base about health promotion in the health care sector.

The International Network of Health Promoting Hospitals and Health Services (*HPH Network*) is recognised as the most important network. It was created in Europe in 1990 under the coordination of the WHO (Pelikan et al., 2001). The mission of the HPH network is to "work towards incorporating the concepts, values, strategies and standards or indicators of health promotion into the organisational structure and culture of the hospital or health service (Pelikan, Gröne, et al., 2011).

Currently the HPH Network is a "network of networks" that groups 25 national and regional HPH networks. The HPH Network also includes individual member hospitals and health services in geographic areas that have not yet established a national or regional network (HPH network, 2018a). The role of the HPH Network has been critical in the development of key material and documents, evaluation tools, and sharing the available evidence for HPH.

Other HPH networks exist outside European region (HPH network, 2018b). Some of these are the Canadian network (since 1987), the Thai network (since 2009) (Kitreerawutiwong, Jordan, & Hughes, 2017) (Pelikan et al., 2001), the Australian network (since 1995) (McHugh, Robinson, & Chesters, 2010) and the Taiwanese network (since 2006) (Huang, Chien, & Chiou, 2016).

Evaluation of the Health Promoting Hospitals

Unlike other initiatives using the settings approach, there is a vast literature on HPH. While many of the studies have focused their efforts on evaluating the outcomes of the initiative, the evidence so far has shown little progress (Whitehead, 2004a; Ziglio et al., 2011). The difficulties in reporting evidence of the effects of HPH are similar to those in other settings-based initiatives, in the sense that measuring and evaluating the achievement of holistic goals remains a challenge. The goals of HPH are stated in terms of processes, provision of services and health gain that cannot always be measured objectively (Aujoulat, Le Faou, Sandrin-Berthon, Martin, & Deccache, 2001; Pelikan et al., 2001). Nevertheless, the standards for HPH and the manual for their application have been useful tools to monitor and evaluate the results of several initiatives (Groene, 2006; WHO, 2004).

The impact of Health Promoting Hospitals

The first version of the standards for HPH was tested in a pilot study carried out in 9 European countries in 2003 (Groene et al., 2005), with a view to fine-tune and distribute the final standards afterwards. The findings of this pilot study showed that although the initiative is applicable and relevant, there was a low adherence to the standards on the part of the participating hospitals (Groene et al., 2005). From a more positive perspective, the authors interpreted these results as an opportunity for an improvement of the fulfilment of the standards. These first HPH experiences also confirmed that for the implementation of the initiative it would be necessary to invest in an organisational change, innovation and learning and

the building of adequate organisational health promotion capacities (Groene et al., 2005).

In 2009, the Retrospective, Internationally Comparative Evaluation Study (PRICES-HPH) was carried out, involving twenty-eight participating hospitals. The study involved the application of a survey about the implementation of 18 core strategies based on the standards for HPH (Pelikan, Dietscher, Schmied, & Röthlin, 2011). The results showed that most of the participating hospitals had implemented at least some of the HPH standards, but that there was a large variety in the degree of implementation of the initiative. Additional results revealed that patient oriented strategies were better implemented than those oriented at staff or community. Moreover, strategies aiming at the improvement of the health promotional qualities of traditional core functions of hospitals were better fulfilled than of health promotion strategies offering specific services (Pelikan, Dietscher, et al., 2011).

McHugh and co-workers (2010), on the other hand, summarised the results of different studies investigating the effectiveness of one or more aspects of HPH (McHugh et al., 2010). By using the standards for HPH as a guideline, the reported results of the studies included in this review could be related to one or more of the standards. Positive effects of the interventions were reported after the implementation of the initiative for quality assurance (standard 1), organisational support (standard 1), patient participation (standard 2) and collaborations (standard 5) (Guo et al., 2007; McBride, 2004; Põlluste et al., 2007; Tountas, Pavi, Tsamandouraki, Arkadopoulos, & Triantafyllou, 2004). In contrast, little change was reported for training in health promotion and sustainability (standard 1) (Johnson & Baum, 2001; Tountas et al., 2004). Despite the good results reported by some studies, McHugh et al (2010) concluded that there is limited evidence that the initiative succeeds in achieving its objectives.

Factors influencing the implementation of Health Promoting Hospitals

Several factors have been reported that influence the implementation of HPH initiatives. The first pilot HPH initiatives with HPH carried out in

the 90s (Groene et al., 2005; Pelikan, Dietscher, et al., 2011) suggested that the presence of an adequate organisational structure is the most important factor for the implementation of a HPH initiative (Röthlin, Schmied, & Dietscher, 2015). Within this structure, elements such as a constant quality measurement, official health promotion teams, the presence of health promotion policies, a fulltime coordinator, and the availability of economic and human resources stand out as the most important qualities (Röthlin et al., 2015; Whitehead, 2004a). Lee and co-workers (2014) also mentioned the presence of inter-sectorial link, and a positive attitude towards change as additional influencing factors (Lee, Chen, & Wang, 2014).

Another factor that is frequently mentioned as important for the success of the implementation of a HPH initiative is the engagement and participation of the hospital staff. In this regard, Whitehead (2005) remarked that the participation of health professionals in health promotion often remains limited to traditional education programmes, while their contribution to initiative such as the HPH is not clear (Whitehead, 2005). Lee and colleges (2014) on the other hand, showed that some groups of health professional, such as family doctors, dieticians, physiotherapist and public health professionals, tend to be more enthusiastic than others about health promoting initiatives. This may be because they are more aware of the importance of health promotion. On the other hand, the lack of interest to participate in HPH initiatives on the part of certain health professionals may be because health promotion and more specifically the settings approach, is only marginally considered in the training programmes for health careers (Tountas et al., 2004).

Finally, the excessive specialisation of hospital care, together with the organisational structure characterised by a strong hierarchy, has also been mentioned as detrimental to the implementation of health promotion activities (Aujoulat et al., 2001).

Conclusions

While hospitals have traditionally served as suitable settings for individual health promotion, the HPH approach aims for a broader approach

incorporating the values and aims of health promotion into all processes of the organisation and into organisational culture. According to Whitelaw (2001), a hospital would become a HPH when all isolated health promotion actions become linked and are used as a springboard for a concerted and organisational-wide reform program (Whitelaw et al., 2001).

The evidence that supports the outcomes of HPH initiatives remains scarce, despite the fact that many hospitals across the world are engaging in HPH initiatives, often as part of networks. While the evidence on outcomes is accumulating slowly since the conception of the approach, the standards for HPH have turned out to be a very useful guide for the implementation of HPH initiatives and for the generation of evidence, by giving consistency to the process and guidelines on where to focus the efforts. Finally, as for the health promoting schools, multiple factors must be considered when implementing a HPH initiative. While the enabling or hindering factors will depend on the individual characteristics of the hospital and its context, some generic factors have been identified, including an adequate organisational structure and the engagement and participation by the hospital staff. This information can be considered to advance and create better conditions for the successfully implementing the HPH initiative.

1.4. HEALTH PROMOTING WORKPLACES

The safety, health and well-being of workers generally considered as being of the utmost importance for governments and international organisations (Motalebi, Keshavarz Mohammadi, Kuhn, Ramezankhani, & Azari, 2018). The reason for this is that health and well-being of the workforce are closely related to national productivity, which is the basis for the economy (Torp et al., 2014). Since in addition to the so-called occupational diseases the rising prevalence of chronic diseases has also affected the health of employees, their importance for workplace health is increasingly recognised (Parent-Thirion, Fernández Macías, Hurley, & Vermeylen, 2007; Solé & Kuhn, 2013).

The need to incorporate strategies that promote safety and health in the workplace has moral, economics and legal reasons (Burton, 2010). Creating a workplace that does no harm to the mental or physical health or safety of workers is a moral imperative. At an economic level, companies that promote and protect workers' health have less costs resulting from accidents, less financial consequences from illness, and are more successful and competitive (Zwetsloot, Scheppingen, Dijkman, Heinrich, & Besten, 2010). At a legal level, most countries have a legislation that requires employers to protect workers from hazards that could cause injury or illness (Burton, 2010).

A healthy and vital workforce is an asset for any organisation (Whitehead, 2006). Therefore, a wide range of strategies exist to manage risks and promote the health of workers in the workplaces (Renaud et al., 2008). Those strategies traditionally focus on occupational health and behavioural lifestyle-related actions. However, these kinds of actions have less impact than broader approaches that incorporate the social and physical environment (Chu et al., 2000). Therefore, since the 90s, health-promoting programmes at workplaces began to emerge which adopted a more holistic approach addressing the organisational, social and environment determinants of health for workers in institutions (Chu et al., 2000; Whitehead, 2006). This has led the development of the *health promoting workplaces (HPW)* initiative.

Development and definition of Health Promoting Workplaces

The origins of Health Promoting Workplaces

The first HPW initiatives were in Europe during the 90s, with the support of the WHO. Since then, several important developments have led the way to reinforce the HPW concept. An important milestone was the establishment of the European Network for Workplace Health Promotion (ENWHP) in 1996 (Solé & Kuhn, 2013). In 1997, the Luxembourg Declaration for the first time laid down a common understanding of the

concepts, strategies and principles of a HPW (ENWHP, 2007; Masanotti & Briziarelli, 2006).

Definition of a Health Promoting Workplace

According to the WHO (Burton, 2010) a Health Promoting Workplace is one in which workers and managers collaborate to use a continual improvement process to protect and promote the health, safety and well-being of all workers and the sustainability of the workplace. This definition shows the evolution of the concept of HPW. Thereby, the occupational focus of health that only aimed at preventing occupational injury and preventive health activities is left behind. The new understanding of health, gives space for the inclusion of other psychosocial factors that influence the workers' health (Burton, 2010).

Framework for action for Health Promoting Workplaces

The lack of adequate guidelines for implementing the concepts and values of HPW (Chu et al., 2000), led to the WHO to launch the Global Framework for HPW in 2010 (Burton, 2010). This framework serves as a reference to workplaces to become a HPW, and include four areas of action (Burton, 2010):

1. *Physical work environment* refers to the structures and factors that can affect workers' safety and physical/mental health. Some of the hazards that are present in the physical environment are related to the furniture, machinery or chemical products with which workers come into contact.
2. *Psychosocial work environment* refers to the organisational culture, attitudes and beliefs that affect the mental well-being of employees. Some of the psychosocial hazards are a poor working organisation, organisational culture, or management style, and a lack of work-life balance.
3. *Personal health resources* refers to the resources and opportunities that are provided to workers to improve their health. Employment

condition and lack of knowledge may make it difficult for workers to adopt healthy lifestyles or may result in high levels of undiagnosed diseases.

4. *Enterprise involvement in the community* refers to the activities in which an enterprise might engage, or the expertise and resources it might provide, to support the social and physical well-being of a community in which it operates. This particularly includes factors affecting the physical and mental health, safety and well-being of workers and their families.

Characteristics of a Health Promoting Workplace

A workplace can be recognised as being a HPW when it has certain characteristics. Firstly of all, a HPW should regard health as a strategic asset, the motor of development and innovation, and as a resource contributing to the achievement of business targets (Zwetsloot et al., 2010). Secondly, it recognises that employees are a necessary success factor for the organisation. The participation of all those involved in the organisation, especially workers, in health related actions is encouraged, and all actions are supported by an organisational policy (Mackay, Cousins, Kelly, Lee, & McCaig, 2004; Whitehead, 2006). At the management level, a HPW initiative includes motivated senior managers, a collaborative organisational involvement and commitment, a supportive environment, and a problem-focused approach (Mackay et al., 2004).

Based on the framework for action presented in the previous section, a HPW is expected to implement strategies according to achieve each of the areas of action (Burton, 2010). For example, to ensure a good psychological work environment, a HPW could perform periodical monitoring to identify psychosocial hazards and apply a hierarchy of controls to address them. Other strategies to address different hazards could include:

- *Eliminating or modifying hazards at the source*: reallocate work to reduce workload, remove supervisors or retrain them in communication and leadership skills, enforce zero tolerance for workplace harassment and discrimination.

- *Lessening the impact of hazards on workers*: allow flexibility to deal with work-life conflict situations, provide supervisory and co-worker support (resources and emotional support), allow flexibility in the location and timing of work, and provide timely, open and honest communication.
- *Protecting workers from hazards*: raising awareness and providing training to workers, for example regarding conflict prevention or harassment situations.

Examples of strategies for the other areas of actions are available at the original document (Burton, 2010). However, it is important to consider that there is no "one-size-fits-all" and that each organisation must adapt these recommendations to their own workplace, their own culture, and their own country.

Health Promoting Workplaces initiatives and networks

The most advance network of HPW is the European Network for Workplaces Health Promotion Network (ENWHP), created in 1996 (ENWHP Foundation, 2018). This network groups 28 countries of the European Union (EU) and the European Economic Area (EEA) (Solé & Kuhn, 2013), and aims at expanding the concept of HPW through a continuous exchange of experiences. Other HPW networks and initiatives exist outside European region. Although the size and level of coordination of these networks is not comparable to that of the ENWHP, some good example of initiatives exist in the USA (CDC, 2018), Australia (Mental Health Associatin NSW, 2018), and Chile (Caroca Marchant, 2014), among others (Chaves-Bazzani & Muñoz-Sánchez, 2016).

Evaluation of Health Promoting Workplaces

A lack of published long-term evaluation examples has hampered the movement of HPW to date (Burton, 2010; Zwetsloot et al., 2010). This leaves HPW initiatives and research with a significant gap about what

specific steps should be taken and what evaluation criteria should be met (Motalebi et al., 2018).

Traditionally, the benefits of a HPW initiative have been measured in terms of individual health outcomes, such as health behaviours, occurrence of disease and injury, absenteeism, work ability, general health and positive health. These indicators can be measured via medical consultations records or by applying individually focused questionnaires (Torp & Vinje, 2014). Measuring these results is an easy and widely used form of evaluation (Dooris, 2006b; Torp et al., 2014). However, when the settings approach is used, other outcomes should be evaluated in addition to individual health outcomes (Whitehead, 2006). In this sense, health promoting workplace aims to go beyond cost reduction and looks for assets that generate added value, like creativity, innovation and becoming an "employer of choice" (Karasek, 2004). Organisations that care for their employees become attractive in the labour market. This could be seen as a positive outcome, even in absence of individual health effects (Zwetsloot et al., 2010). However, it is often difficult to measure the benefits of organisational health promotion outcomes, especially in relation to immediate financial remuneration and savings (Whitehead, 2006).

The impact of Health Promoting Workplaces

In a recent review, Motalebi and co-workers (2018) extracted information from 27 studies on HPW initiatives implemented in different countries (Motalebi et al., 2018). The results showed that the HPW initiatives included in these studies addressed more than 100 different topics, including "executive management", "designing and planning", and "policy" among the most often mentioned. In contrast, in many of the initiatives the key areas of action of the framework for HPW were not considered or mentioned.

In a similar vein, Chaves-Bezzani and Muñoz-Sánchez (2016), gathered information about HPW initiatives from different countries as presented in 90 articles (Chaves-Bazzani & Muñoz-Sánchez, 2016). The results of their review revealed that the effects of HPW initiatives were

measured through different methods and indicators (Muñoz- Sánchez & E, 2010; Renaud et al., 2008). HPW initiatives were associated with lower rates of diseases, accidents and absenteeism, and from an economical point of view reduced the costs associated to medical expenses and compensation claims for occupational diseases HPW (Carpintero P, Lago S, Neyra A, 2014). The authors concluded that HPW initiatives still predominantly rely on traditional indicators of occupational accident and disease and absenteeism rates for evaluation, while methods focusing on the holistic approach and the "add value" of HPW have not been well considered.

Factors influencing the implementation of Health Promoting Workplaces

Although different work organisations can have different needs, there are some generic factors that can influence the implementation of a HPW initiative (Burton, 2010). One of the factors that have been recognise as having a strong influence is the engagement by the organisation's leadership. This can be reached by three means: by gaining the commitment from major stakeholders; by getting the necessary permissions, resources and support from the owners, senior managers and union leaders; and by developing a policy signed by the highest authority (Whitehead, 2006). The commitment of the main stakeholders can have a dual effect. On the one hand it can facilitate the implementation of an initiative, but at the same time it can have negative impact as well. Stakeholders may for instance want to control the course of the actions. Also, seeking the commitment of the main stakeholders only can harm the participation of other stakeholders, such as unions and workers (Green, Poland, & Rootman, 2000). Therefore it is necessary to create trust with the stakeholders of all levels, and declare demonstrable allegiances through tangible actions that in some cases may include taking risks (Poland et al., 2009).

The participation of workers in every step of the implementation process from planning to evaluation is another factor that must be considered for the successful implementation of a HPW initiative. Trade unions represent the collective means of the workers' voice, which makes

their commitment essential to ensure participation in the development of the initiative (Peltomäki et al., 2003).

Other influencing factors include the degree of knowledge health professionals and safety official in workplaces may have regarding HPW initiatives and the organisational structure. In large organisations health and safety are often seen and addressed as separate subjects, which may hinder a comprehensive approach to health (Burton, 2010).

Conclusions

The workers' health has always been an important issue for companies, governments and international organisations, since a healthy workforce is underpinned by strong moral and economic grounds. The concept of HPW goes beyond the focus on preventing occupational diseases and accidents, to promote positive lifestyle behaviours and facilitate organisational development (Zwetsloot et al., 2010). While the case for promoting HPW initiatives would appear to be compelling, many managers still ignore its place and function. As a consequence, there remains a gap between the theory and practice of HPW.

To overcome this challenge, there is a need to develop a consensual international action framework as well as tools to effectively evaluate the success of HPW initiatives at organisational and system levels (Motalebi et al., 2018), in order to demonstrate the added value of HPW. From an economic point of view, it would be beneficial to try and quantify the benefit of a HPW and express them as fully as possible in monetary terms (Zwetsloot et al., 2010).

1.5. OTHER HEALTH PROMOTING SETTINGS

While in the preceding paragraphs we have focused on three settings where initiatives for health promotion have made most progress, all sort of organisations can adopt the settings approach and develop environments that

foster health. In addition to schools, hospitals and workplaces, other settings have indeed implemented the principles of the settings approach. Example of these settings are cities (Heritage & Dooris, 2009); sports clubs (Kokko et al., 2014); prisons (WHO, 2007a); and homes (Mahler et al., 2014).

Since individuals move from one setting to another many times per day (Kokko et al., 2014). It is important to also consider the interaction among different settings. In this regard, a coordination between multiple settings has been proposed under the name of *super-setting* approach (Bloch et al., 2014). This approach could well be the future for the settings approach in health promotion, but will require the joint work of different stakeholder to develop health promotion action across the wide range of political, economic, social, professional and environmental interests (Dooris, 2004). The participation and empowerment of community stakeholder from all settings involved is key to foster local ownership, motivation, responsibility and competences to act for a common cause.

CHAPTER 2

HEALTH PROMOTING UNIVERSITIES: PRINCIPLES AND DEVELOPMENT

2.1. THE UNIVERSITY AS A SETTING FOR HEALTH PROMOTION

Universities are large organisations where people spend a significant part of their lives, either as students, professors, researchers or staff. Often, the members of a university are or will be leaders whose ideas and values impact on society. As potential social leaders of the future, their lifestyles, attitudes and beliefs about health are likely to have an influence on the health of the population (Dooris et al., 2016). As such, the university setting represents a valuable opportunity to promote health and well-being, and to positively influence the lives of its members and of the wider society (Becerra Heraud, 2013; Dooris & Doherty, 2010b; Holt & Powell, 2017).

The health of the university community as a priority

Universities have implemented strategies to improve the health and well-being of its members for many years. Although the university community is made up of academics, administrative staff and students, most of the interventions are aimed at students (Dooris & Doherty, 2010a). The reason for this is that universities often feel responsible for the health problems associated with stress and anxiety of students attending university. Another reason may be that as healthier students tend to be more academically successful (El Ansari & Stock, 2010), universities have an interest in adopting a proactive approach to fostering their health (Haas, Baber, Byrom, Meade, & Nouri-Aria, 2018). Studying at a university not only creates academic stress and reduced subjective well-being, but for the majority of students also implies a transition from a relatively protected life in their families, to a more independent life. The adjustment to university life in combination with academic stress predisposes students to engage in risk behaviours. Unhealthy lifestyles often start during student life, as at that times students explore and test different lifestyles choices which may have significant implications for long term health outcomes (Holt & Powell, 2017; Leslie et al., 2001).

The most common unhealthy lifestyles adopted by university students are alcohol and drugs misuse, poor physical activity, poor eating habits, and unsafe sex (Bastías & Stiepovich, 2014; Sánchez-Ojeda & De Luna-Bertos,

2015; Stock, Wille, & Krämer, 2001). Added to the stress that is inherent to academic performance and in some cases financial concerns, this can lead to both physical and mental problems (El Ansari & Stock, 2010; Meier, Stock, & Krämer, 2007), which, in turn, can again negatively influence academic performance (Stewart-Brown et al., 2000). Moreover, health related habits that are formed during this period may be difficult to change later in life (Stewart-Brown et al., 2000). These long-term effects of an unhealthy lifestyle adopted at a younger age are a major public health concern (Schmidt, 2016).

Academics and administrative staff represent another group of the university community. This group mainly consists of adult people, who are affected by the same unhealthy behaviours and health problems as the general adult population (Muñoz & Cabieses, 2008). However, as the university is their workplace, they can also be exposed to specific occupational diseases and risk factors, including stress, burnout, sedentary lifestyle or exposure to hazardous products (Burton, 2010). As for workers in settings generally, academic staff with mental or physical health problems are less productive and more likely to be absent from work, and offer lower quality services.

In view of the above, it can be concluded that the university represents a unique opportunity to improve the health of its community (Leslie et al., 2001). The latter does not only include the students, but also the staff. Investing in the health of the university community not only benefits the community itself, but through broader strategies also the health of the entire society.

Educating for health at the university

Health problems in the university have been addressed through various strategies. Historically, the most often used strategy is to aim at modifying behaviours and lifestyles of students and staff through education on key themes like drugs, alcohol, safe sex or mental health (Arbour-Nicitopoulos, Kwan, Lowe, Taman, & Faulkner, 2010; Ha, Caine-Bish,

Holloman, & Lowry-Gordon, 2009; Stock et al., 2014). This strategy is based on an educational approach, which seeks to improve people's knowledge and competences to change their attitudes with a view to ultimately change their behaviours and lifestyles (Stock et al., 2003; Whitehead, 2004b). Although this approach is still widely used it is known to have limited effects. One reason for this is that the educational strategy focuses only on the individual determinants of health related behaviour and pays no attention to the setting, nor does it involve participation or empowerment (Meier et al., 2007).

It has been recognised that in addition to lifestyle oriented strategies, the university can contribute to promoting health by addressing factors in the physical and social environment that affect the health and well-being of students and staff (Stock et al., 2001). Individually oriented behavioural interventions will have better effects when they are embedded within the framework of a settings approach that stimulates participation and organisational change (Reger, Williams, Kolar, Smith, & Douglas, 2002; Stock et al., 2014; Xiangyang et al., 2003).

Applying the settings approach to universities

Universities, and more broadly higher education institutions in general, have as a mission to enable students to develop their capabilities and fulfil their potential. But they also contribute to a country's economy, advance knowledge through teaching and research, and play a major role in shaping democratic, civilised, inclusive society (Dooris, 2001a). To fulfil this mission, universities have realized that they must do more than just train highly skilled graduates (Muñoz & Cabieses, 2008). This has led universities to become more interested in improving student engagement, experience, health and well-being (Dooris, Doherty, & Orme, 2017).

In this respect, the challenge for universities is to understand how health and well-being can be meaningfully translated and promoted within the university context. To address that challenge, the adoption of the settings approach can provide an answer. As outlined in Chapter 1, the settings approach originated from the Ottawa Charter, is rooted in a variety of

theories including socio-ecological theory, salutogenesis, systems theory, and organisational development (Dooris et al., 2014). The engagement with these theories can guide the design, implementation and evaluation of *Health Promoting University* (HPU) initiatives.

Applied to the university context, the settings approach involves creating an understanding about how the university's context, facilities, services and programmes impact on the wellbeing of its community. It also seeks to integrate health effectively within the culture, structures, routine life and core business of the university. By following the settings approach and its associated theories, a HPU can move beyond addressing single health topics and groups to embrace a more comprehensive "whole university" approach including students, university staff and the wider community (Dooris et al., 2014).

2.2. DEFINITION AND DEVELOPMENT OF THE HPU

In accordance with the settings approach to health (see Chapter 1), a Health Promoting University can be defined as one that integrates health into the culture, processes and policies of the university. It also aspires to create a learning environment and organisational culture that enhances the health, well-being and sustainability of its community and enables people to achieve their full potential (Dooris et al., 2017).

Objectives of a Health Promoting University

The aims and objectives of a HPU were first established in a *framework for action* for HPU, published in 1998 (Tsouros et al., 1998). According to this document, the main goals of a HPU were to integrate health into the university culture and structures and to promote the health and well-being of staff, students and the wider community. These goals should be incorporated into the university setting by the application of the whole system approach. This approach can be applied as long as there is a commitment from the highest authority of the university, and when a joint

working group involving all sectors of the university community is obtained. In this sense, universities can potentially contribute to health gain in three distinct areas (Tsouros et al., 1998; Whitehead, 2004b):

- Creating healthy, supportive and sustainable learning, working and living environments for students, staff and visitors.
- Increasing the profile of health and sustainability in the university's core business its learning, research and knowledge exchange.
- Connecting with and contributing to the health, well-being and sustainability of the wider community.

As such, a HPU should reject the view that health promotion means to persuade people to adopt "healthy" behaviours, and instead develop a holistic vision of health. By doing so, it must seeks to empower students and the university community to develop their understanding of themselves as people within, outside and beyond the university setting. Moreover, a HPU should provide the tools and a supportive environment for students to explore possibilities, experiment safely and make their own informed choices (Dooris, 2002). To achieve this, it is imperative that universities work on specific objectives. These should aim to obtain a commitment and vision for health within the University's plans and policies; to support a healthy personal and social development of students; and to create a supportive, empowering and healthy workplace. In addition, health promoting and sustainable physical environments must be created and there must be an increased understanding, knowledge and commitment to multidisciplinary health promotion across all university departments (Tsouros et al., 1998).

This first version of the objectives of a HPU focused on creating an environment that is conducive to health and whose main object of action is the university environment. This is demonstrated in the objectives outlined above. It is important to note that this document was created more than 20 years ago. In 2015, as a result of the International Conference on Health Promoting Universities and Colleges in Kelowna, Canada, the Okanagan Charter was launched (Okanagan Charter, 2015). This new document

reflects the latest concepts relevant to the HPU. In the Okanagan Charter the objective of the HPU has expanded and evolved, with special emphasis on the responsibility of the university as an agent of social change beyond the limits of the university setting (see 2.3: framework for action for HPU).

Characteristics of a Health Promoting University

To achieve the aforementioned objectives and become a HPU, universities can develop different strategies. Despite the variety of strategies that can be chosen depending on the context, a HPU should have certain key characteristics. These characteristics are based on the settings approach as applied to the university setting (Dooris, 2002), and are related to the areas in which universities can contribute to improve health and include:

- *Providing a health promoting environment*: Universities can invest in creating quality areas for study, work and recreation (buildings, green spaces). They can also ensure safety and wellbeing measures, encourage physical activity as part of the curricular and extra-curricular programmes, and promote healthy nutrition practices in the cafeteria and shops by setting rules that govern the nature of the food offered within their facilities (Becerra Heraud, 2013).
- *Reorienting educational programmes towards health promotion*: Universities can incorporate health promotion programmes for health and educational careers, and promote post-graduate courses, diploma courses and master's degrees related to health promotion.
- *Establishing relationships with the community*: Through its own policy processes, a university has the capacity to build health into other organisations. A HPU can use its expertise and influence to develop an advocate role to influence healthy public policy at the local, national and international level (Dooris, 2001b; Whitehead, 2004b).

Development of Health Promoting Universities worldwide

Although universities have always carried out actions to promote health, the application of the settings approach to universities is of a much more recent date, and started after the launch of the Ottawa Charter in 1986. Since then, specifically in the mid-90, several universities across the world have started to implement the HPU concept.

Health Promoting University initiatives in the Europe

In Europe, universities in the United Kingdom were at the forefront of the HPU movement. The Universities of Lancashire and of Central Lancashire in England were amongst the first to establish a HPU initiative. The initiative at the University of Central Lancashire started in 1995, initially for two years as a pilot project (Dooris, 2001b). It tried to implement the HPU concept by embedding an understanding of and commitment to holistic health within the university. To develop the health promoting potential of the university, the initiative worked across a wide range of health-related issues, including sexual health, building design, transport and mental health. These themes were selected for their importance to health and well-being within the university setting (Dooris, 2001a). Based on the principles of health promotion and of the settings approach, the University of Central Lancashire developed a *framework for action* for HPU, which included the objectives, principles, perspectives, processes and characteristics that a HPU should pursue. This framework for action sought to integrate a commitment to and vision of health within the university's plans and policies, create a health promoting and sustainable physical environment, develop the university as a supportive, empowering and healthy workplace, support the healthy personal and social development of students, increase understanding, knowledge and commitment to multi-disciplinary health promotion across all faculties and departments, and support the promotion of sustainable health within the wider community.

The agenda for action created by this university provided examples of strategies to put the objectives for the different areas of action into practice. It also offered specific policies and a wide range of projects and educational

materials being an example for other initiatives, which could adapt them depending on the resources and specific contexts (Dooris, 2002). The most important lessons from this first initiative were that health can only be promoted if: (i) individual and community action is underpinned by organisational development and change; and (ii) a combination is achieved of top down commitment and bottom up action.

Despite the challenges faced by this first HPU initiative, it demonstrated the potential of the HPU initiative to increase the health and well-being of university students, staff and the wider community (Dooris, 2001a). As a result, other HPU initiatives in the UK and in other European countries soon followed. Table 2.1 gives an overview of HPU initiatives in European countries since 1995, listed by country.

Table 2.1. Health Promoting University initiatives in European countries

Country	Description	Reference
Austria	Thirteen universities are grouped in a national network since 2009.	(Sawczak & Sleytr, 2015)
Germany	A national network was established in 1995. One technical document to guide and evaluate HPU initiatives called "Quality criteria of HPU" was published in 2010.	(German Network HPU, 2010; Gräser, Hesse, & Hartmann, 2011; Stock, Milz, & Meier, 2010)
Spain	Around 50 universities are grouped in regional networks and one national network (REUS) since 2008. This network has the support of the Ministries of Education and Health.	(Martínez-Riera et al., 2018; Martínez Riera & Muñoz Guillena, 2014; Ruano-Casado & Ballestar-Tarín, 2015)
Switzerland	A national network was established in 2009 and formally constituted in 2015. It is strongly focused on workplace health promotion and prevention.	(Healthy Universities Network, 2018)
United Kingdom	At the forefront of this movement and set up the UK Network of Healthy Universities in 2006. This network currently involves over 80 institutions from the UK and partner countries.	(Healthy Universities Network, 2018)

Health Promoting University in the Americas

Following the examples from Europe, several HPU initiatives have been implemented in the Americas as well. Probably due to cultural and languages differences, the HPU initiatives have functioned separately in the Latin American and North American countries (except Mexico).

In Latin America, the first initiative took place in Chile, where HPU initiatives have been implemented since the early 2000s. Among the several Chilean universities that adopted the HPU concept, the initiative of the Pontifical Catholic University (PUC) is well recognised. The initiative developed by the PUC adopted a comprehensive and community approach. In the first three years, efforts focused on identifying existing actions to improve the health of the university community (Lange & Vio, 2006). According to this assessment, the health issues most addressed at universities in Chile included the physical activity, eating habits and the creation of free smoking spaces.

In 2003 the PUC jointly with the University of Alberta (Canada) organised the first international HPU congress in 2003 (Becerra Heraud, 2013). In 2006, it launched a guideline for HPU (Lange & Vio, 2006). This document has been considered as a reference for the development of HPU initiatives as a national and regional level. Nowadays the HPU initiative at the PUC, which is called *Campus Saludable* (Healthy Campus), is part of the strategic plan of the institution, has a stable coordination team and addresses a wide range of health-related issues.

Well established HPU initiatives currently exist in various other countries in Latin and North American countries. Table 2.2 gives an overview of these initiatives. Emerging HPU also exist in other Latin American countries (Arroyo-Acevedo, Duran Landazabal, & Gallardo Pino, 2014).

Table 2.2. Health Promoting University initiatives in the Americas region

Country	Description	Reference
Argentina	Four universities. One technical document to guide and evaluate HPU initiatives.	(Ministerio de Salud Argentina, 2012)
Canada	Around 15 universities grouped in a national network since 2016. University of British Columbia hosted the latest International Conference on HPU in 2015.	(Canadian Health Promoting Campuses, 2018)
Colombia	More than 66 universities grouped in several regional networks and a national network (REDCUPS) since 2010. One technical document to guide and evaluate HPU initiatives. Congresses scheduled every two years, the last one in October 2018.	(Becerra-Bulla, Pinzón-Villate, & Vargas-Zárate, 2011; Duarte-Cuervo, 2015; Gaviria Mendez, 2015; Granados, Alba, & Becerra, 2009)
Costa Rica	Five universities are grouped in a national network (REDCUPS) since 2002. One technical document to guide and evaluate HPU initiatives.	(Red Costarricense de UPS, 2014)
Chile	First experiences in Latin America. Currently more than 20 universities are grouped in a national network since 1999. Two technical documents to guide and evaluate the HPU initiative. Congresses scheduled every two years, the last one in November 2018.	(Lange & Vio, 2006; Red Nacional de Universidades Promotoras de la Salud, 2013)
Cuba	First initiatives since 1994. More than 30 universities are grouped in a national network.	(Baños et al, 2001; Marzán & Bonal , 2012)
Mexico	More than 70 universities are grouped in several regional networks and one national network. Meetings twice a year. Congresses scheduled every two years, the next one is scheduled for May 2019.	(Red Mexicana de UPS, 2017; Rodríguez, 2016)
Peru	Six universities are grouped in a national network. One technical document to guide and evaluate HPU initiatives.	(Arroyo et al., 2014; Ministerio de Salud Peru, 2010)
USA	More than 25 higher education institutions form the Healthy Campus Coalition leads by the ACHA, which seeks to create healthy environments in higher education.	(American College Health Association, 2018)

Health Promoting University in other regions

In 2016, 25 universities formed the Australian HPU network (Cook, 2016; Taylor et al., 2018). Similarly in New Zealand more than 70 universities are grouped in a national network (TWANZ Network, 2018). HPU initiatives have also been developed in several countries in Asia (Lee, 2002; Sirakamon, Chontawan, Akkadechanun, & Turale, 2013; Xiangyang et al., 2003), creating the basis for the Asia-Pacific HPU Network (Mui, 2015).

International networks of Health Promoting Universities

Networking is a powerful means for promoting commitment, change and innovation (Tsouros et al., 1998). Accordingly, HPU initiatives in several countries are organised in regional and/or national networks.

In Europe, universities in the United Kingdom created the *UK Network of Healthy Universities* in 2006. This network currently involves over 80 institutions from the UK and partner countries (Dooris, 2016). In the rest of Europe, various countries have also developed HPU networks, but a European-wide coordination has not yet materialized (Newton, Dooris, & Wills, 2016).

In the Americas, following the first international HPU congress in Chile in 2003, several universities began to implement the HPU initiatives and set up national networks. National HPU networks currently exist in various countries (see Table 2.2). These national networks are part of a broader *Ibero-American HPU network*, which has been operating since 2007 and groups more than 80 universities from the Americas, Spain, Italy and Portugal (Arroyo-Acevedo, Duran Landazabal & Gallardo Pino, 2014). Since its conception, this network has organised international congresses every two years, the last one of which was held in Alicante, Spain in 2017 (RIUPS, 2017).

Regardless of their location, HPU networks seek to achieve common goals. While the discussion on the operational components of a HPU structure and organisation is still ongoing (Arroyo-Acevedo et al., 2014), the

main goal of HPU networks is to share experiences about the implementation of the initiative. Ideally, the most experienced universities can share the successes and difficulties they faced when implementing the HPU initiative, serving as examples for universities that are still in the initial stages. The information that is thus gathered can help to identify the key factors that need to be addressed to become a HPU. Although this process is still in its infancy (Newton et al., 2016), understanding how HPUs function in reality is an interesting learning process, the relevance of which goes beyond the HPU framework itself. Indeed, the experience with HPU shows how a conceptual framework can be translated into concrete actions. This may depend on several factors, including the available resources, the political and administrative characteristics of the university, and the most relevant health issues in that specific context (Van den Broucke, 2016).

Although already in 2002 the importance of a formal coordination of HPU at international level was highlighted (Dooris, 2002), almost 15 years later this has not yet materialized (Newton et al., 2016).

2.3. FRAMEWORK FOR ACTION FOR HPU

Since the introduction of the HPU initiative, a framework for action has been developed to guide universities in becoming a HPU. This development passed through different stages. In 1998, the European Regional Office of WHO published a document that aimed to inspire universities to implement HPU initiatives based on the experiences of English universities (Dooris, 2001b; Tsouros et al., 1998). In 2005, after the second International HPU Conference, the Edmonton Charter was launched, which reinforced the definition and principles of a HPU and proposed the objectives to be pursued (WHO, 2006). In 2013, the Declaration of Puerto Rico was published on the occasion of the tenth anniversary of the HPU movement in the American region (Red Iberoamericana de Universidades Saludables, 2013), setting out ten principles to guide the implementation of HPU in the American region. Two years later, the *Okanagan Charter* was launched as an outcome of the 2015 International Conference on Health

Promoting Universities and Colleges organised by the University of British Columbia in Canada (Okanagan Charter, 2015).

The Okanagan Charter is the latest and most complete document on HPU. It summarizes the framework for action for HPU including the key principles and the objectives, and seeks to guide universities gathering the latest concepts, processes and principles relevant to HPU initiative, building upon advances since the Edmonton Charter 2005.

Key principles of the Health Promoting Universities

The following are the guiding principles to mobilise systemic and whole university action:

1. *Use a whole systems approach* based on a holistic understanding of health to create conditions for health in the university setting
2. *Ensure comprehensive and campus-wide approaches* developing and implementing multiple interconnected strategies for everyone in the university
3. *Use participatory approaches and engage the voice of students and others* giving the opportunity to provide the conditions for the members of the university community to contribute with solutions and strategies
4. *Collaborate between sectors within and outside the university* across disciplines and sectors to support action at a whole university level and to promote health in communities more broadly
5. *Promote research, innovation and evidence-informed action* to guide the formulation of health enhancing policies and practices
6. *Build on existing strengths and use a salutogenic approach* base on strengths, understand problems, celebrate successes and share lessons learned.

7. *Value local communities, contexts and priorities* through engagement and an informed understanding of local needs and consideration of vulnerable and transitioning populations perspectives and experiences
8. *Act on an existing universal responsibility* recognising health as a human right and ensuring that health promotion actions are based on principles of social justice, equity, dignity and respect for diversity.

Influence of the settings approach concept on the Okanagan Charter

All the aforementioned principles proposed in the Okanagan Charter are based on the settings approach and the theories that underpin it, as explained previously (see chapter 1 section 1.1). This influence is reflected in many ways. Firstly, the importance that is given to the whole system approach is the first principle of the Charter, considering the campus and the interconnections within it as the object of health promotion actions. Secondly, the values that are promoted in the charter such as collaboration, justice, equity, dignity, diversity and participation, are also mentioned in the conceptualization of the settings approach (WHO, 1998). Participation is especially highlighted in the charter, which mentions the importance of engaging the voice of students and promoting a meaningful involvement of all stakeholders in order to look for solutions and strategies to face issues of health promotion in the campus, with a positive and holistic view of health (Okanagan Charter, 2015). Thirdly, the generation of evidence in favour of initiatives with a settings approach has been discussed since its inception (Dooris, 2006; Pelikan et al., 2001). The charter seeks to encourage universities to investigate the effectiveness of their HPU initiatives to guide the development of health enhancing policies and practices. To do this, universities must consider the challenges that they have to face in order to achieve this goal (Dooris, 2006a; 2006b; Whitelaw et al., 2001). These challenges include: the difficulty to understand and apply the theories that support the settings approach; changing the focus of biomedical evaluation (based on changes in behaviours and prevalence of diseases) towards an approach that allows observing changes at a systemic level; and facing the complexity of evaluating the added value of the whole system approach, by

trying to map and understand the interrelationships, interactions and synergies between the different groups and components of the setting.

Areas of action of a Health Promoting University

The areas of action represent the objectives that a HPU must pursue. They are grouped in two *calls for action* (Okanagan Charter, 2015). The first call seeks to embed health into all aspects of the campus culture across the administration, operations and academic mandates. These objectives are based on the five areas of action proposed in the Ottawa Charter (WHO, 1986) applied to the university setting and consider:

1. *Embed health in all campus policies* by reviewing, creating and coordinating campus policies and practices with attention to health, well-being and sustainability.
2. *Create supportive campus environments* identifying opportunities to study and support health and well-being, as well as sustainability and resilience in the built, natural, social, economic, cultural, academic, organisational and learning environments.
3. *Create a culture of well-being* by being proactive in creating empowered, connected and resilient campus communities that foster an ethic of care, compassion, collaboration and community action.
4. *Support personal development* providing the necessary tools to all university community members to develop competences, personal capacity and life enhancing skills and so support them to thrive and achieve their full potential and become engaged local and global citizens while respecting the environment.
5. *Re-orient campus services* coordinating and designing campus services to support equitable access, enhance health and well-being, optimise human and ecosystem potential and promote a supportive organisational culture.

The second call encourages universities to lead health promotion action and collaborate locally and globally. To this end, three additional areas of action are considered:

6. *Incorporate health and health promotion into the curricula across all disciplines* to embed an understanding and commitment to health, well-being and sustainability across all disciplines and curricula, thus ensuring the development of future citizens with the capacity to act as agents for health promoting change beyond campuses.
7. *Support research, teaching and training for health promotion* contributing to health promoting knowledge production, application, standard setting and evaluation that advance multi-disciplinary and trans-disciplinary research agendas relevant to real world outcomes, and also, ensure training, learning, teaching and knowledge exchange that will benefit the future well-being of our communities, societies and planet
8. *Reinforce partnership and collaboration in and off university* by supporting inspiring and effective relationships and collaborations on and off campus to develop, harness and mobilize knowledge and action for health promotion locally and globally.

The framework for action described above has served as a guide for universities on their way to becoming a HPU. However, it is inevitable that different universities will do different things in their health promotion actions (Whitehead, 2004a). A rationalisation of competing resources and a variety of different priorities will always dictate this. The fact that some universities will commit more than others arises through fundamental differences namely cultural, administrative, environmental or political (Xiangyang et al., 2003).

Stages in developing a Health Promoting University

In addition to the framework for action, a model with the steps to follow to implement a HPU initiative has also been proposed. Figure 2.1 shows the order in which the stages of the model should be developed to ensure an effective implementation (Dooris et al., 2010).

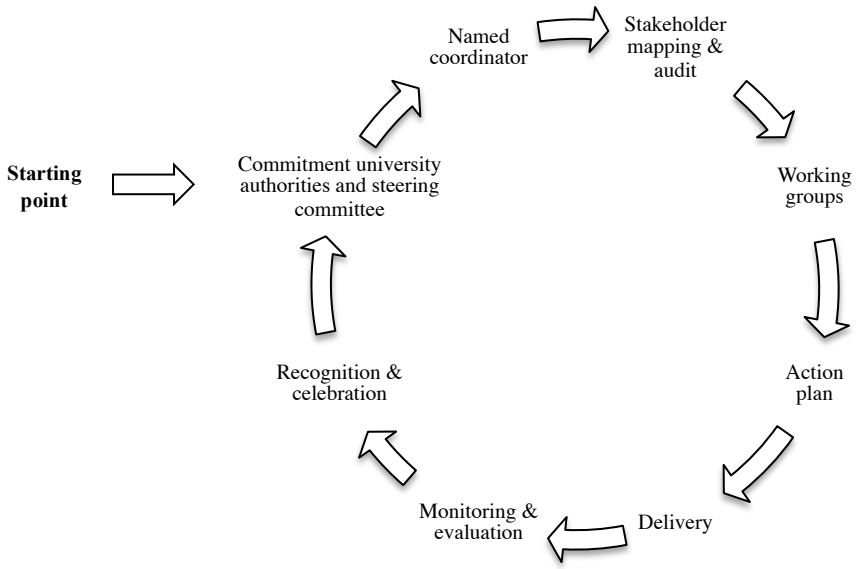

Figure 2.1. Stages to develop a HPU initiative

Following this model the *starting point* is to set up a HPU is to obtain the commitment of the major authorities of the university. As a proof of this commitment, a document can be signed demonstrating the will to implement the initiative. Once the commitment is obtained, a steering committee made up of senior representatives from a relevant cross section of the university staff and student bodies should be formed. The following step is to name a coordinator whose role is to facilitate the process of implementation of the initiative. To accomplish this task the coordinator must be given resources, support and time to dedicate to the initiative. The third step is a stakeholder mapping and audit, to identify the current health related activities and needs of the university community. Based on the results of this mapping, different working groups can be formed in step four. This is followed by the

development of an action plan and it delivery, which are core processes of the HPU initiative. The key to success is to combine the coordination of high visibility activities with innovative action and long-term organisational development and change. The next step is to set up an evaluation. In principle, the responsibility for this evaluation should lie with the university and involve a form of self-evaluation, focusing on change and improvement. To this end, a continuous documentation of the process is key. At the end of the cycle, the last step consists of getting the recognition and celebration of everything that has been achieved. It must be mentioned that with this last step the process does not end, as the implementation of a HPU initiative is a cyclical and continuous process of change and development.

HPU initiatives have reported the use of other implementation models similar to the one presented in Figure 2.1 (Dooris & Doherty, 2009; Perry, Byrne, & Carey, 2012). For instance, despite the importance of the obtaining the commitment of the authorities prior to the launch of a HPU initiative, some initiatives were able to start at a different stage. In these cases, obtaining the commitment of the authorities remains very important, but while working on it progress can be made in other steps (Arroyo & Rice, 2009; Becerra Heraud, 2013; Lange & Vio, 2006).

2.4. EVALUATION OF THE HPU

As mentioned in Chapter 1, one of the challenges of the settings approach is to generate evidence of its effectiveness. This is challenging due to its complex and multifactorial nature and the need to evaluate activities in more than one domain (Dooris, 2006; Stewart-Brown, 2006). While this is true for all initiatives following a settings approach, providing evidence on the effectiveness is especially challenge for HPU initiatives (Newton et al., 2016).

There are several reasons why it is difficult to evaluate HPU initiatives. Firstly, the fact that many HPU initiatives are not explicitly based on theories makes it difficult to identify the indicators that must be measured and monitored for evaluation (Bauer et al., 2003; Dooris et al.,

2014). The little use of theories can be due to the difficulty of understanding the theories that support the settings approach, which is compounded by the difficulty to translate such theories into tangible actions. As in other initiatives, the creation of a HPU continues to be understood as health promotion actions in the settings (Arbour-Nicitopoulos et al., 2010; Ha et al., 2009; Lambert et al., 2017; Christiane Stock et al., 2014), while less studies focus on the application of the settings approach in the university context (Suárez-Reyes, Muñoz Serrano, & Van den Broucke, 2018; Taylor et al., 2018; Whitehead, 2004b).

Secondly, it is difficult to demonstrate the added value of the whole systems approach for both health and the core business of the university. For this, the evaluation should look at the whole university and try to map and understand the synergies between all groups and components of the university (Dooris, 2006b; Whitehead, 2004b).

Thirdly, securing research funding for the evaluation of HPU initiative is challenging (Dooris et al., 2016). As there are more funds available for research that can demonstrate observable results, there is a tendency to persist in research focused on changes in prevalence of diseases and specific risk factors (Dooris, 2006b).

Finally, unlike for other health promoting settings, there is no internationally agreed-upon system of common criteria for HPU in view of certification (Martínez-Riera et al., 2018). As for other settings, such a system would offer a good basis to generate quality indicators to evaluate, accredit and certify HPU (RIUPS, 2017).

As a consequence, universities that implement HPU initiatives rarely evaluate their initiatives (Martínez-Sánchez & Balaguer, 2016). When some form of evaluation is performed, it often consists mainly of the assessment of isolated strategies, without giving attention to an evaluation of the whole setting (Sarmiento, 2017). However, some examples, although scarce, do exist on the evaluation of the initiative beyond the measurements of specific programmes.

Empirical studies on Health Promoting Universities

As mentioned earlier, the interest of to adopt the HPU approach has grown steadily over the years. This is illustrated by the fact that more than 350 delegates attended the latest International Conference on HPU in Kelowna, Canada in 2015. However, very little information is available as to how these universities implemented the HPU. Only a handful of studies exist that have investigated this issue.

Dooris and Doherty (2010) conducted an audit of universities in UK to explore which health related activities they had undertaken. Of the 28 institutions that mentioned having implemented a HPU initiative, the scope of the initiatives varied greatly, from small-scale single initiatives to full-blown whole system programmes reflecting a holistic understanding of health and well-being and a concern to focus on all community members. However, an evaluation of the initiatives made clear that they had generally been limited in scope and depth, partly due to resources constraints (Dooris & Doherty, 2010a; Newton et al., 2016).

Other evaluation studies focused on the implementation of the key areas of action of the Ottawa Charter in universities. A study of Chinese universities implementing HPU initiatives (Xiangyang et al., 2003), using a combination of qualitative and quantitative methods such as interviews and questionnaires, showed an increase of the number of healthy policies that were implemented, as well as improvements in health related knowledge and behaviours among students and staff. Similarly, a study carried out in a university in Cuba evaluated an initiative where, in accordance with the principles of the Ottawa Charter, a health improvement of all members of the university community was aimed for, health promotion was incorporated in the curriculum, and improvements were made of the physical environments and educational programmes on life habits. To evaluate the initiative, the percentages of students, teachers and workers who were aware of unhealthy living habits were used as outcome indicators, as well as the percentage of medical students interested in family medicine and the arrangements in the infrastructure of the university (Baños et al., 2001).

Other initiatives limit their efforts to the *intention* to carry out an evaluation (Martínez-Sánchez & Balaguer, 2016; Rodríguez Villamil & Guerra, 2013), focusing on the strategies or activities, needs analysis or health assets mapping, among others (Martínez Riera & Muñoz Guillena, 2014). The envisaged evaluation methods typically involve a combination of qualitative and quantitative tools, such as questionnaires and interviews. In nearly all of these initiatives, evaluation is mentioned as a pending issue and a challenge to face (Granados et al., 2009). In addition, some of them also acknowledge the lack of adequate evaluation tools.

Tools for the evaluation of Health Promoting University

Although the evaluation of HPU remains a challenge, some of the networks have developed tools to facilitate the evaluation process. Two of these tools, one of which was developed in Europe and one in Latin America, are exemplary.

The UK Healthy Universities Network Self-Review Tool

This Self Review Tool (SRT), together with guidance packages and case studies, is part of a toolkit developed by the UK Healthy University Network. The SRT was created in 2012 in an effort to provide a mechanism for universities and other higher education institutions to review their progress in implementing a whole system approach to promote health (Dooris et al., 2016; Holt, Monk, Powell, & Dooris, 2015). It consists of a confidential online questionnaire that contains five areas of work, divided in sub-areas, of working towards a HPU (Table 2.3). For each statement, respondents can assess the progress towards the achievements by answering: "yes, we are there", "working on this currently", "thinking about it", or "no, at all". The results provide a report on the progress of the initiative, represented in the form of a "traffic light" identifying strengths and weaknesses. In accordance with its self-evaluative character, the results are confidential and do not seek to make comparisons with other initiatives (UK Healthy University Network, 2018).

A total of 84 universities indicated their willingness to use the SRT. Of these, 28 actually have used it. This number includes both members and non-members of the UK Healthy Universities Network. A study of the use of the SRT revealed that the main motivation for using the tool were the support of the university authorities, the fact that it gives concrete outcomes (traffic light), that it makes it easy to understand the whole system approach, and that it strengthens the collaboration between the different stakeholders (Dooris et al., 2016). The tool was well received and perceived by HPU initiatives as an useful resource to evaluate HPU outcomes and processes (Dooris et al., 2016).

Table 2.3. UK Healthy University Network Self-Review Tool.

1. Leadership and Governance
    a. Corporate Engagement and Responsibility
    b. Strategic Planning and Implementation
    c. Stakeholder Engagement
2. Service Provision
    a. Health Services
    b. Well-being and Support Services
3. Facilities and Environment
    a. Campus and Buildings
    b. Food
    c. Travel
    d. Recreational and Social Facilities
    e. Accommodation
4. Communication, Information and Marketing
    a. Communication
    b. Information
    c. Marketing
5. Academic, Personal, Social and Professional Development
    a. Curriculum
    b. Research, Enterprise and Knowledge Transfer
    c. Professional Development

The Chilean Guide for self-evaluation and recognition of Health Promoting Higher Institutions

This guide was created in 2013 by the Chilean network of HPU, with the aim to enable universities to self-evaluate their status as a HPU. Similar to the SRT of the UK, the Chilean tool consists of dimensions of working towards a HPU, each of which is subdivided into several indicators (Table 2.4).

Table 2.4. The Chilean Guide for self-evaluation and recognition of Health Promoting Higher Institutions.

1. Institutional management
    a. Institutional policies
    b. Management indicators
    c. Work life quality
    d. Study life quality
    e. Curricular and academic training aspects
    f. Link with the environment
2. Communication and participation
    a. Effective communication
    b. Social participation
3. Health Promoting Environments
    a. Infrastructure: Student spaces
    b. Infrastructure: Work spaces
    c. Security
    d. Waste management
    e. Recreational and Social Facilities
    f. Inclusive spaces: Special needs
4. Lifestyles
    a. Protective psychosocial factors
    b. Sexual and reproductive health
    c. Healthy eating habits
    d. Physical activity
    e. Promotion of protective factors and prevention of drug use

While, like the SRT, the application of this tool has a self-evaluative purpose, universities may use the results to request a national certification given by the Ministry of Health. However, thus far the tool has only been used in pilot projects. A reason for this limited use could be that it is not available online, which makes access and diffusion difficult. Nevertheless, the results of the pilot projects using this tool are promising (Red Nacional de Universidades Promotoras de la Salud, 2013).

Both tools described above (the English SRT and the Chilean self-evaluation guide) have a self-evaluating character. This allows those who participate in the evaluation process to generate their own evidence and determine their own priorities in line with the principles of empowerment evaluation (Fetterman et al., 1996). The SRT tries to evaluate how the whole system approach can be incorporated in universities, which is a fundamental characteristic of the settings approach (Dooris et al., 2016). The whole system approach is what guides the evaluation in this case, representing an example of how the evaluation can be driven by theory (Bloch et al., 2014; Dooris et al., 2007). Theory driven evaluation has been mentioned as a valuable method for documenting the effectiveness of initiatives that use a settings approach. These examples show how this evaluation approach can be applied to HPU initiatives.

Other tools to guide and evaluate the HPU initiatives have been created and are used by national networks in Colombia, Costa Rica, Peru and México (Martínez-Riera et al., 2018).

Benefits of the Health Promoting University

While research findings on the impact of HPU remain scarce, it is assumed that the HPU initiative contributes significantly to health and well-being of their members and wider community. In addition, its implementation has other potential benefits that are more related to core business of the universities. For students, besides improving their health, a HPU can provide the conditions for the stay at university to be a positive experience. For the university staff, a HPU can reduce sickness absence and

improve the overall work experience (Dooris & Doherty, 2010a). A healthy and motivated workforce performs better quality services, making a positive contribution to the economy (Holt et al., 2015). This also applies to the university context, where a healthy and productive staff would positively affect the health and wellbeing of students and the university community (Innstrand & Christensen, 2018). For the wider community, a HPU offers mechanisms to engage with and support a number of governmental and global agendas, such as active travel, sustainability, climate change, and reducing obesity, among others (Butland et al., 2007; Orme & Dooris, 2010).

In summary, a university that cares for the health of its members and of the wider community, delivers its core business of research and education more effectively, and improves its public image, improves its position on the "marketplace" of the higher education (Dooris & Doherty, 2010a). Moreover, a HPU also contributes to the development of students and people in general, who become active global citizens who are able to value and prioritise their own health, the health of others and the wider societal and planetary well-being, both in the short term and in their future lives and roles within families, workplaces and communities (Holt et al., 2015).

2.5. FACTORS INFLUENCING THE IMPLEMENTATION OF THE HPU

Certain factors that are present in the context can influence the implementation of a setting-based initiative (Kokko et al., 2014). These factors can have different effects such as hindering, enabling, counterbalancing or moderating effects (Darlington, Violon, & Jourdan, 2018). Experiences in settings such as schools and hospitals have shown that the factors affecting health promoting initiatives can be both internal and external. The most often mentioned factors are the organisational capacity, political support, healthy policy and funding (Lee et al., 2014; McIsaac et al., 2013). These factors can have an enabling or hindering effect depending on whether they work in favour or against of the initiative.

In a similar vein, universities that have applied the HPU initiative have reported both difficulties and opportunities. Dooris and Doherty (2010) found that the main difficulties a HPU have to face are related to the low value that is given to health promotion and the persistence of a biomedical focus to address health in the university setting (Dooris & Doherty, 2010a). Lee (2002) adds that the main difficulties in implementing the HPU are related to resources and manpower constraints, setting up common objectives and goals, conflicts of interest, and overlapping activities. Other difficulties that have been encountered are a lack of motivation and commitment of staff and students, difficulties to perform a community diagnosis to find out the major public health problems and needs, and problems to develop base-line data for the future evaluation of the programmes (Lee, 2002).

From a more positive point of view, Xiangyang et al. (2003) identified some key points for the success of the HPU initiative. In this regard, the launch of healthy policies, the training of teaching staff in health promotion, and the inclusion of health education and health promotion topics in the curriculum were considered as strategic actions to develop a HPU initiative (Xiangyang et al., 2003). One study carried out at a faculty level revealed that the main enablers for the implementation of a HPU initiative were the support of the university authorities and the value assigned to health promotion in the faculty, while important barriers were time constraints and work overload (Sirakamon, Chontawan, Akkadechanun, & Turale, 2011). However, as this study was an initiative of a health faculty, it is not clear if those factors also apply at the university level.

In general, then, apart from some interesting findings from isolated studies, the factors that influence the possibility to implement a HPU initiative has not been well documented.

2.6. CONCLUSIONS

The university provides a valuable setting to promote health and well-being. While universities have always implemented a wide range of actions

demonstrating that they care for the health of their members, these actions have traditionally been targeted to individual members of the university community, especially students, and aimed to help them develop skills to adopt healthy lifestyles. However, health promotion's vision as laid down in the Ottawa Charter, that a setting itself can be the object of the actions to create health, has led universities to adopt the settings approach. By following this approach, a university can become a HPU by integrating health into the culture, structure, routine life and core business of the university. As such, a HPU moves beyond single topics of health towards a more strategic and comprehensive "whole university" approach that includes and affects the whole university community.

The first universities to implement the HPU did so in the mid-90 in Europe, specifically in England. Since then, numerous HPU initiatives have been set up in countries around the world. In an effort to unify the way in which the HPU is understood, a framework for action (Okanagan Charter) has been developed to guide universities in becoming a HPU. This framework is formed by several documents and includes the objectives, key principles and actions that a university should worked on to create a HPU (Okanagan Charter, 2015).

Despite the popularity of the HPU approach worldwide, several questions remain. In general, the evidence to support the HPU is scarce, which makes it difficult for some initiatives to convince the university authorities of the pertinence of becoming a HPU. As the primary mission of a university is not to promote health, this is one of the main challenges that HPUs have to face (Dooris et al., 2017). Other challenges are related to the need to move towards a comprehensive and salutogenic perspective of health, and to strengthen the role of universities as a powerful force for positive change within communities and society as a whole. For the HPU approach to be successfully implemented, it is important that these issues be addressed.

CHAPTER 3

IMPLEMENTATION OF

HEALTH PROMOTION INITIATIVES

3.1. IMPLEMENTATION OF HEALTH PROMOTION INITIATIVES

There are numerous programmes that aim to promote health by changing behaviours or the conditions that impact on the health of people. However, even though many of these programmes are well designed and based upon valid theories and strategies of which the effectiveness is proven, the expected changes and outcomes are not always observed. This may be due to the way the initiatives are put in place or *implemented*. The term "implementation" refers to a specified set of activities to put a programme into practice. In this regard, the science of implementation is dedicated to identifying what it takes to transmit innovative programmes or initiatives to improve the health and well-being of people (Fixen, Naoon, Blase, Friendman, & Wallace, 2005; May, 2013).

The main reason for paying attention to implementation in health promotion is that the quality of the implementation impacts on the overall quality of interventions (Durlak & DuPre, 2008). Although there is no consensus with regard to the conceptual and methodological frameworks to be used to study the quality of implementation, various strategies have been proposed. The most influential way of defining the quality of the implementation is by considering the *fidelity* of the implementation. Implementation fidelity is defined as the degree to which an initiative is implemented as intended by the programme developers (Dusenbury, Brannigan, Falco, & Hansen, 2003). For example, to implement a standard programme to encourage people to quit smoking, a number of choices must be made with regard to key elements for its delivery, such as the content, the person(s) who deliver(s) the programme, or the number and duration of sessions. The programme will be considered as having high implementation fidelity when all these elements are delivered as faithfully as possible to the original plan or protocol, while any change in the programme is seen as a potential threat to the quality of the initiative (Dusenbury et al., 2003).

The fidelity of the implementation of an intervention can be evaluated in different ways. Each of these considers key dimensions of fidelity, critical component or structures, and processes that should be present in an programme or initiative (Century, Rudnick, & Freeman, 2010). For

instance, Dane and Schneider (1998) posit that a successful implementation is one that abides with four components of fidelity (Dane & Schneider, 1998): adherence, exposure, quality of programme delivery, and participant responsiveness; (i) adherence refers to whether interventions are delivered as intended; (ii) exposure refers to the number of sessions implemented, sessions length, frequency of implementation of programme techniques; (iii) quality of programme delivery refers to the manner in which staff deliver a programme; and (iv) participant responsiveness refers to the extent to which participants are involved in programme content (Mihalic, 2002). Hasson (2010) suggested the two additional factors moderate implementation fidelity, notably: (v) recruitment, which refers to procedure that are used to attract potential programme participants, and (vi) context, which concerns the surrounding social systems, such as structures and cultures of groups, inter-organisational linkages and historical as well as concurrent events (Hasson, 2010).

All these factors, which can be evaluated when conducting a process evaluation, are typically represented in a logical model. One of the most comprehensive models for implementation fidelity is the one proposed by Carroll et al. (2007), which combines the dimensions approach with the critical components approach. This combined model is suitable to measure the implementation fidelity of programmes that are based on very detailed and structured manuals or protocols, as it is the case for many health education or patient education initiatives (Dube, Van den Broucke, Dhoore, Kalweit, & Housiaux, 2015; Schinckus, Van den Broucke & Housiaux, 2014). For initiatives that use a settings approach, however, such as HPUs, the concept of implementation fidelity is less easily applicable, as they pursue more complex and diverse objectives related to organisational rather than specific individual changes, and as such require more adaptation to the specific context. This limits the possibility to use detailed and structural protocols.

3.2. IMPLEMENTATION FIDELITY VERSUS ADAPTABILITY

If a high level of implementation fidelity is difficult to achieve for interventions that are not based on structured manuals and that require more adaptation to the context, it is necessary to consider other factors that define the quality of their implementation (Lambert et al., 2017; Schaap, Bessems, Otten, Kremers, & van Nassau, 2018). Focusing on fidelity has indeed been criticised for being rigid, as it assumes full compliance with programme as prescribed by the programme developer. To the extent that health promotion places a high value on stakeholder involvement and participation, a high level of fidelity to the programme may not even be desirable. This holds particularly true for initiatives that go beyond behavioural change, such as those following the settings approach, where a strict adherence to an "original" programme might result in failure to meet the local need (Dusenbury et al., 2003; Schaap et al., 2018). For those interventions, the adaptability that is otherwise considered a threat to implementation fidelity is positive and even necessary (Durlak & DuPre, 2008).

The overall objective of initiatives using the settings approach is to create cultural change at an organisational level. As such, for these initiatives a focus on the implementation on the adequacy of processes and structures is more appropriate (Dusenbury et al., 2003; McIsaac et al., 2015). The processes that are required to implement a settings based health promotion initiative, are dictated by the specific frameworks for action that have been designed for each of the specific settings (school, hospitals, universities) (Okanagan Charter, 2015; The International Union for Health Promotion and Education (IUHPE), 2006). These frameworks should guide the initiatives to focus on generating changes in the functioning of the organisation and its associated principles (Samdal & Rowling, 2011). For universities, the processes that must be implemented in order to become a HPU are described in the framework for action for Health Promoting University. The latest version of these key processes is described in the Okanagan Charter (2015).

While the necessary processes to build a health promoting setting are relatively well known, the implementation of the frameworks for action for

the different settings has not been studied intensively. The setting that has advanced the most in the development of initiatives to create a health promoting setting is the school (Samdal & Rowling, 2011). Rowling and Samdal (2011) described how in their study each of the processes to develop a Health Promoting School (HPS) was operationalized in concrete actions (Rowling & Samdal, 2011). They considered the degree to which each process could be implemented as an indicator of fidelity. However, the way in which specific actions are put in place to implement these processes may involve different strategies, and vary depending on the resources and opportunities that are present in the setting. Taking this into account requires a level of flexibility and adaptability. As such, the adaptability of the actions to the specific context also becomes an element of implementation quality.

In this regard, some authors (Castro, Barrera, & Martinez, 2004; Van Daele et al., 2014) propose that there should be a balance between fidelity and adaptability to implement a health promoting initiative. This can be especially important in complex initiatives such as settings-based initiatives. Castro and colleagues (2004) suggest hybrid programmes that "build in" adaptation to enhance programme fit, while also maximizing the fidelity of implementation and programme effectiveness. Building on this suggestion, Van Daele and co-workers (2012) developed a set of guidelines for this hybrid approach to programme implementation, based on theory of implementation fidelity and community-based participatory research. Their approach, which they refer to as "empowerment implementation", contains four steps (i) developing a core component; (ii) selecting partner; (iii) assessing the fidelity/adaptation concerns with partners; and (iv) developing an overall implementation plan.

Solutions like these, which reconcile implementation fidelity and adaptability offer the possibility of implementing the core components of an intervention with sufficient fidelity, while allowing for the adaptation of the intervention to local needs and involving local stakeholders. In a similar vein, the frameworks for action to build health promoting settings focus more on processes than on the details, and give the necessary space to

participants to adapt the initiative to the specific needs and resources of the organisation.

Yet despite advances in the research on the implementation of initiatives with an setting focus, there is no standard method to operationalize these processes and measure their fidelity and/or adaptability (Schaap et al., 2018). This is especially challenging for universities, where a framework for action exists that guides on the principles and action areas for a HPU initiative (Okanagan Charter, 2015), but no specific guidelines have been developed to operationalize these processes. This has produced a great variability in the way HPU initiatives have been implemented, which in turn may explain the different effects that have been observed among HPU initiatives. However, the fact that the most advanced or more successful initiatives share their experience can represent a valuable resource for those who are still in the initial stages.

3.3. EVALUATION OF THE IMPLEMENTATION

Reports of settings-based initiatives seldom detail the way the initiative was implemented. This may be because this requires a process evaluation that can be difficult to plan, perform and describe. Durlak and DuPre (2008) concluded from a review of more than 500 studies of health promotion and prevention programmes that despite the recognition of its importance for outcomes, the collection of implementation data as an essential feature of programme evaluation leaves much room for improvement (Durlak & DuPre, 2008). In a similar vein, O'Donnell (2008) concluded from a review on implementation fidelity that there are few studies to guide researchers on how to measure the fidelity of the implementation of core curriculum interventions and relate the results to outcomes (O'Donnell, 2008).

To evaluate the quality of the implementation of an initiative, either involving and individual or settings approach, several methods may be used. Most studies that investigate implementation combine qualitative and quantitative methods and use a variety of tools and research designs,

including single and multiple respondents (Darlington et al., 2018; Kokko et al., 2014; McIsaac et al., 2015). Schinckus et al (2014) noted that different aspects of implementation fidelity are typically assessed through different kinds of measures, whereby the content of the intervention is usually assessed through observation, while the different component of the intervention intensity (e.g., frequency, duration, or coverage) are more often assessed through provider self-reports, and participant responsiveness via self-report measures completed by the participants. However, the authors also assumed that the variety of methods that are used to assess aspects of implementation is not necessarily the result of a well-informed, deliberated choice, but may be due to a lack of a shared conceptual understanding of what implementation fidelity is and how it can be measured. As a result, the choice of measures is often a secondary focus and based on specific contexts and programs (Schinckus et al., 2014).

Finally, it is also important to consider the potential barriers and moderators that may affect implementation. While theoretical models of implementation (Carroll et al., 2007; Castro et al., 2004; Hasson, 2010; Van Daele et al., 2014) acknowledge the importance of such factors, few studies include them explicitly in their evaluation of the implementation process and assess their effects on the implementation quality.

A factor that must be taken into account for the evaluation of the implementation of health promotion initiatives is the involvement of participants. For the evaluation of a health promoting setting this can again be challenging. While ideally all members of the organization should be involved, no matter which design or data collection method is used, this can be difficult to achieve in practice. In a large organization such as a university, it is practically unachievable to collect data from everyone. Faced with this difficulty, an approach that is often used is to collect data via key informants. These key informants should be the ones who have more experience in the implementation of the initiatives. In combination with other sources of information, they can be triangulated to provide a rich understanding of how the initiative works in an institution (McIsaac et al., 2015).

3.4. CONCLUSION

In this chapter, we introduced the concept of implementation as an important but often neglected aspect of health promotion practice. We presented the two main approaches to considering the quality of implementation, i.e., implementation fidelity and adaptability, and noted that for health promotion practice there should ideally be a balance between implementation fidelity and adaptability. This is especially important for complex initiatives such as settings-based initiatives, as this "hybrid" approach offers the possibility to implement the core components of an intervention with sufficient fidelity, while allowing the necessary space to participants and stakeholders to adapt the initiative to the specific needs and resources of the setting. It was noted that specific guidelines for implementing the existing frameworks for action on HPU initiatives have not yet been developed, and that the collection of implementation data is almost never a part of the evaluation of HPU programmes. This may explain the variability in the way HPU initiatives have been implemented and the different effects that have been observed.

In the studies that will be described in the chapters 5, 6, 7 and 8 we addressed these issues. Each of the studies aimed to obtain information about specific aspects of implementing health promoting actions and practices at the university level, using different methods: a systematic review (chapter 5), a self-report questionnaire (chapter 6 and 8), and semi-structured interviews (chapter 7) amongst representatives of the university authorities or people in charge of a HPU initiative. Although it is acknowledged that a single individual's opinion may not reflect the whole truth (Kokko et al., 2014), obtaining information from people who are well placed to have knowledge of how the initiative works, questionnaires and interviews are the most convenient ways to access this information (McIsaac et al., 2015).

CHAPTER 4

GENERAL AND SPECIFIC OBJECTIVES

4.1. OBJECTIVES

As explained in the previous chapters, the settings approach as a strategy to promote health has been applied to several settings. Like schools, workplaces, hospitals, cities and other settings, universities represent a valuable setting to promote health and wellbeing among their members. Moreover, universities are often committed to invest in the health of students and staff, and can play a pivotal role in encouraging the wider community to promote health. One way of achieving this is to adopt the concept of a Health Promoting University (HPU), which applies the principles of the settings approach to the university context. To do so, frameworks for action have been developed to guide universities in applying the settings approach. The HPU approach has a strong theoretical basis, and it appears to be appealing to universities worldwide. However, the way in which universities in different parts of the world have implemented the approach remains largely undocumented.

To address this lack of information regarding the implementation of the Health Promoting Universities concept, the current thesis was undertaken.

General research question

The general research question underlying this thesis was how the HPU conceptual framework is being implemented in universities from different contexts. This general question entails the following specific questions:

1. What is the current state of implementing HPU initiatives in countries around the globe as reported in the literature?
2. How have universities in different parts of the world implemented the HPU concept?
3. What are the factors influencing the implementation of the HPU concept?
4. What type and level of participation is achieved in HPU initiatives?

Specific Objectives

To answer these research questions, this thesis was constructed around four specific research objectives. For each of these objectives a specific study was undertaken, involving different study designs and methods (Table 4.1).

Table 4.1. Specific objectives of the thesis

Study	Objective	Study design and methods
First	To review the current state of implementing HPU initiatives in different countries worldwide	Systematic review of literature
Second	To explore the implementation of the HPU concept in a number of universities worldwide	Cross-sectional survey study with quantitative and qualitative orientation Questionnaire
Third	To explore the factors that influence the development and implementation of HPU initiatives	Cross-sectional survey study with qualitative orientation Interview
Fourth	To explore the type and level of participation by university community members that is achieved in HPU initiatives	Cross-sectional survey study with quantitative and qualitative orientation Questionnaire

4.2. THE RESEARCH PROCESS

Methods and methodology

Systematic review

The first research objective was to review the current state of the implementation of the HPU concept in different countries around the globe as reported in the research literature, taking into consideration the different cultural, economic and societal contexts in which universities operate. For this purpose, a systematic review of the literature was performed. A systematic review involves a detailed and comprehensive plan and search strategy, with the goal of reducing bias by identifying, appraising, and synthesizing all relevant studies on a particular topic (Uman, 2011).

To carry out this review process, we followed the steps set out in the guideline for systematic reviews on health promotion and public health proposed by Armstrong et al. (2007). To identify relevant published work on the implementation of the HPU approach, a search was performed in the main electronic databases that include studies in different languages (PubMed/Medline, Lilacs and Scielo). Following the specification of the search terms and of the inclusion and exclusion criteria, the search process was performed in February and March 2015 (See Chapter 5 for more details). By using a data extraction form, articles that met the inclusion criteria were content analysed paying attention to the following: (a) definition of Health Promoting University; (b) priority areas of action; (c) items of work; (d) coordination of the project; (e) project evaluation and possible results; (f) adaptation to the cultural context. Information obtained from the articles was summarized in tables. While the data extraction process was done by one reviewer (MSR), a senior researcher supervised the entire data extraction process to ensure reliability and avoid data entry errors (Uman, 2011). To improve the reliability of the results, discussion sessions were held between the single reviewer and the supervisor to discuss the information extracted from the selected articles.

Survey study via an online questionnaire

The second research objective was to explore the implementation of the HPU concept and operational framework in a number of universities worldwide. The method chosen for this purpose was a survey study involving an online questionnaire to be completed by representatives of universities belonging to HPU networks in different countries. This survey study allowed us to collect data in a systematic way (Given, 2008). The questionnaire was presented online, which allow us to contact participants in different geographical locations around the world, and also facilitated the collection and storage of data (Wright, 2006).

Data collection took place from June to September 2016. To select the participants, a purposive sampling approach was used, whereby HPU networks in different continents and countries were contacted. The coordinators of the networks were asked to distribute an invitation with a link to the online questionnaire among their affiliates. The questionnaire, made available via LimeSurvey, had to be completed by the coordinator or another person directly related to the initiative in each university (See Chapter 6 for more details).

To explore the implementation of HPU initiatives, we used an adapted version of the questionnaire developed by Dooris and Doherty (2010a). This questionnaire, which contains a mix of quantitative and qualitative questions, was used to study the activities of healthy universities in England. Our version of the questionnaire was first drafted in English and then translated into Spanish. Following translation, two bilingual experts in HPUs reviewed both versions to ensure that the content was the same in both languages. The questionnaire covered the following aspects: (1) General information about the university; (2) Information about the HPU initiative; (3) Priority areas of action; (4) Priority items of work; (5) Coordination and commitment; and (6) Evaluation process of the HPU. It included closed, multiple choice, and open-ended questions.

The survey was also used to address the fourth research objective, i.e., to explore the level of participation of members of the university community in HPU initiatives. To investigate this issue, a series of additional questions

were added to the questionnaire to inquire about the extent to which different members of the university (professors, staff and students) were able to participate in the HPU initiatives, and which strategies were used to encourage them to do so. Based on the literature on community participation, a hierarchy of strategies was considered that ranged from information delivery through consultation, to active involvement in the design, planning and decision-making about the initiative. As the answers to these questions were considered as deserving of a more in-depth analysis, we decided to make a separate article to present these results (See Chapter 8 for more details).

Survey study using semi-structured interviews

The third research objective was to explore the factors that influence the development and implementation of the HPU initiative. For this purpose, we performed a qualitative survey study involving semi-structured interviews with representatives of universities that implemented HPU initiatives in different Ibero-American countries. Representatives of universities were considered eligible if they met the following criteria: (a) be directly related to the HPU initiative of the university in the role of coordinator, director or assessor of the initiative; and (b) have been in that position for at least one year prior to the study. These criteria allowed to obtain information from people with the best knowledge concerning the implementation of theit HPU initiative, as well about the opportunities and difficulties faced during the process. Coordinators or people directly involved with the initiative have also been used as key informants in research studies in other settings (Lee et al., 2014).

Obtaining the collaboration of key informants is not always an easy task. To increase the chances of informants participating in an interview, it is helpful to contact potential interviewees or other representatives of their institutions in person before the data collection (Burke & Miller, 2001). This first in-person contact was done during the Ibero-American Congress of Health Promoting Universities held in Alicante, Spain (27- 29 June, 2017). After that, the researcher contacted the persons who had shown interest in

participating by e-mail and scheduled the interviews by telephone or Skype at convenient times. Of the 80 universities that are members of the Ibero-American HPU network, 17 universities participated in our study through their representatives. Interviews were carried out between June and September 2017. Each interview lasted between 25 and 46 minutes, with a mean duration of 33 minutes. All of them were carried out in one single occasion (See Chapter 7 for more details). Prior to the interviews, each participant was informed about the nature of the study and the expected impact of their potential involvement. Consent for participating in the interviews and permission for recording were obtained from all participants. Confidentiality was guaranteed in all the interviews as well as in the manuscript, and the right to withdraw from the interview at any time was also explained.

Telephone and Skype interviews represent several advantages compared to face-to-face interviews, including decreased cost and access to geographically dispersed participants, as in our case (Iacono, Symonds, & Brown, 2016; Novick, 2008). An important disadvantage of these distance interviews, however, is the loss of non-verbal information (Iacono et al., 2016; Sturges & Hanrahan, 2004). Yet this disadvantage is overcome with the use of Skype, which represents a viable data collection tool for qualitative studies (Iacono et al., 2016).

The interview guide used for the interviews included an open-ended question inquiring about the factors that influenced the implementation of the HPU in the university (*"Which factors positively/negatively influenced the implementation of the HPU initiative?"),* followed by additional questions asking for more detail following the recommendations of a semi-structured interview (Given, 2008). The questions allowed to obtain the perspectives, experiences and detailed opinions of the representatives of universities regarding the factors that influence the implementation of a HPU initiative at their university (Hernández Sampieri, Fernández Collado, & Baptista Lucio, 2014).

All interviews were tape recorded and transcribed verbatim. Qualitative data analysis software (Nvivo Version 11 for Mac) was used to

organize and code the imported transcript interviews. The information obtained was analysed by using a thematic analysis in combination with an inductive process through which significant categories were developed from data (Terry et al., 2017). The procedure started with the researcher (MSR) reading all interviews carefully to familiarize herself with the main ideas and recurring themes, using an inductive process. Subsequent readings of the transcribed interviews were carried out to assign tentative names and definitions to the issues that were mentioned. Emerging codes were then discussed and defined with a second researcher (MMS), using labels taken from the words of participants as well as from the literature on HPU. This list of codes and definitions enabled a constant comparison when coding subsequent transcripts. Frequent discussions were held between the two researchers to revise codes and definitions. The information contained in the interviews was categorized under the codes created in the previous step. The information for each code given by each of the interviewees was examined, and the main ideas were summarized and presented in the results section. The summary of the information and the main ideas were discussed between both researchers, and quotations were used to illustrate each idea and reflect the wording of the informants. Once all data were studied and all the factors were identified, the relationship between the factors was analysed.

Theoretical perspective and epistemology

The HPU approach is inspired by the principles of the settings approach applied to the university context. The settings approach recognises that health is determined by people's environmental, economic, social, organisational and cultural circumstances and that such circumstances have their effect in settings where people spend their daily lives (WHO, 1986). The settings approach, and therefore also the HPU approach, are based on a wide range of theoretical perspectives (Dooris, 2006b), including: (1) salutogenesis; (2) the socio-ecological perspective; (3) sociological theory; (4) systems theory; and (5) organisational development (Dooris et al., 2014).

The salutogenic approach is based on the fact that health must be created, produced and maintained in the settings (Dooris et al., 2017). The

socio-ecological perspective and the sociological theory recognise that health is determined by a complex interaction of factors between people and their environment, which represents a shift of focus from an individual towards a more holistic view of health (Poland & Dooris, 2010). Systems theory understands a setting (in this case a university) as a complex system and recognises the interconnection and synergy among all its components (Anderson, 2016). Organizational development understands the university as a whole and recognises the use of connected interventions to embed health in the culture and ethos of the setting (Dooris, 2013).

These theoretical perspectives underlying the settings approach are also present in this thesis, as they are incorporated in the research questions outlined above. As such, in the studies presented in the thesis we ask universities how they implement the whole systems approach, whether they consider a collaborative coordination of the initiative, which strategies they use to promote the participation of the members of their community, etc.

The different theoretical perspectives that inform the HPU approach come together in the overarching epistemological paradigm of constructivism. Constructionism refers to the fact that the meanings of things are not given, but constructed (Crotty, 1998). This not only applies to realities in society, such as the way members of the university community perceive their situation and derive meaning from it, but also to the act of research itself. Constructivism indeed opposes the idea that there is a single methodology to generate knowledge, as knowledge is constructed by scientists. This principle is also present in this thesis, in the sense that the interpretation of the data deriving from the survey questionnaire and the interviews focuses on the meaning it entails for us as researchers. It is possible that the same information would have a different meaning to other researchers. While a positivist view on research would consider that a weakness, as it is the researcher's job to discover the "objective reality", we believe that it researchers should attempt to understand the complex world of lived experience from the point of view of those who live it. Consequently, there is no single objective reality, and no single methodology to generate knowledge.

CHAPTER 5

IMPLEMENTING THE HEALTH PROMOTING UNIVERSITY APPROACH IN CULTURALLY DIFFERENT CONTEXTS: A SYSTEMATIC REVIEW

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5.1. ABSTRACT

Introduction: Universities represent a valuable opportunity to promote health and well-being. Based on the settings approach, the Health Promoting Universities concept has been developed in different countries and contexts. However, the implementation process remains poorly documented. This systematic review aims to describe how universities have implemented the Health Promoting University concept in different cultural contexts.

Methods: Pubmed, Medline, Lilacs and Scielo were searched for articles on Health Promoting Universities, published between 1995 and 2015. Studies detailing the implementation of a Health Promoting University approach were included. Selected articles were content analysed paying attention to: (a) the definition of a Health Promoting University; (b) priority areas of action; (c) items of work; (d) coordination of the project; (e) evaluation; and (f) adaptation to the cultural context.

Results: Twelve studies were identified for in-depth analysis. Of those, three were theoretical papers, and nine were intervention studies. The programmes described in the selected studies are mostly based on the guidelines of the Edmonton Charter. They incorporated the main areas of action and items of works proposed by the Health Promoting University framework. The implementation of healthy policies and incorporation of health promotion in the curriculum are remaining challenges. Strategies to facilitate adaptation to context include: stakeholder participation in planning and implementation, adaptation of educational material and analysis of needs.

Conclusions: The review suggests that most of the universities work towards similar goals, relying on the Health Promoting University framework, yet that the way in which initiatives are implemented depends on the context.

Keywords: healthy university, implementation, cultural adaptation, systematic review

5.2. INTRODUCTION

Universities are organisations where many people spend a significant part of their time. The individuals who make up the university community (students, professors, technicians, administrative staff, etc.) are or will be professionals, politicians and leaders in different areas of society, and may and may directly influence society with their habits, beliefs and attitudes. In 1986, the Ottawa Charter claimed that health is built where people live, play and love (WHO, 1986). Accordingly, the university setting represents a valuable opportunity to promote health and well-being (Lange & Vio, 2006).

Several universities have assumed this commitment to health, but only a minority have adopted a whole systems approach following the *Health Promoting Universities* concept (Dooris & Doherty, 2010b; Dooris, 2001a; Knight & La Placa, 2013; Tsouros et al., 1998; WHO, 2006). This concept was launched nearly two decades ago, and draws on a number of different experiences, including settings-based interventions such as health promoting schools, workplaces and hospitals, and the expertise of the WHO Healthy Cities Project Office.

The Health Promoting University concept has a strong theoretical basis, and it appears appealing amongst universities worldwide. However, the way in which the approach has been implemented remains poorly documented. This systematic review aims to describe how universities have implemented the Health Promoting University concept in different cultural contexts. In order to achieve this aim, we analysed the following aspects of the Health Promoting University implementation: (a) definition of Health Promoting University; (b) priority areas of action; (c) items of work; (d) coordination of the project; (e) project evaluation and possible results and (f) adaptation to the cultural context.

The conceptual framework for Health Promoting Universities

As an application of the healthy settings approach to higher education institutions, the Health Promoting Universities framework has been developed over the past decades through milestone events such the International Conference on Health Promoting Universities held in 1996; the publication of the guidelines for establishing Health Promoting Universities by WHO-Euro in 1998; and the Edmonton Charter for Health Promoting Universities of 2006 (Tsouros et al., 1998; WHO, 2006). The framework states the objectives that must be pursued to build a Health Promoting University, and mentions what the expected outcomes should be.

The objectives of a Health Promoting University are: (a) to promote healthy and sustainable policies and planning throughout the university; (b) to provide a healthy working environment; (c) to support the healthy personal and social development of the persons involved; (d) to establish and improve primary health care; (e) to ensure a healthy and sustainable physical environment; (f) to encourage wider academic interest and developments in health promotion; and (g) to develop links with the community (Dooris, 2001b; Tsouros et al., 1998). The results of a Health Promoting University programme should demonstrate the extent to which health has been integrated in the culture, structure and processes of the university; and the extent to which the health of the members of the university community improved. The implementation of the key objectives may be described in terms of process and impact, rather than outcomes, whereby collaboration and networking are key elements (4,5). Moreover, universities can also demonstrate improvements in terms of service, academic performance, and providing conditions for good health.

Health Promoting Universities in culturally different contexts

The Health Promoting University approach was first promoted in England in the mid-90s. Since then, initiatives have been developed in other countries in Europe, Asia, and Latin America (Arroyo, Rice, & Franceschini, 2009; Becerra Heraud, 2013; Gräser et al., 2011; Muñoz &

Cabieses, 2008; Sirakamon et al., 2013; Xiangyang et al., 2003). As countries and cultures differ, the context for implementing the approach also varies widely. Since health promotion interventions are more effective when they are adapted to the context (Kreuter, Lukwago, Bucholtz, Clark, & Sanders-Thompson, 2003), Health Promoting University initiatives should be adapted to the local culture and organisational characteristics (Poland et al., 2009).

Culture refers to behavioural patterns, beliefs, art and every product of human work and thought, as expressed in a particular community. Adapting an intervention to the culture is a process known as *cultural tailoring*. In this process, culturally sensitive interventions are created by adapting the existing materials and programmes to meet the needs of the population (Kreuter et al., 2003). There are two levels of cultural sensitivity: (a) *Surface culture* involves matching the materials and messages to observable "superficial" (although important) characteristics of a population, e.g. familiar people, places, language, music, food and locations; (b) *Deep culture* requires an understanding of the cultural, social, historical and psychological forces that influence the population. Whereas surface culture only increases the acceptance of programmes, deep cultural factors influence their effectiveness (Resnicow, Baranowski, Ahluwalia, & Braithwaite, 1999).

In accordance with these distinct levels, different strategies can be used to make programmes more culturally sensitive. One strategy is to adjust language and use familiar images or places for the members of the university (surface culture). Such modifications would improve the acceptance of the programme (Resnicow et al., 1999). Another strategy is to recognise and reinforce values, beliefs and behaviours of the university community (deep culture).

Implementation fidelity versus adaptation and empowerment

While health-related programmes are thought to be more effective when they are adapted to the target population, the question is how to

change the programme without losing its core content. For instance, is an initiative still a Health Promoting University programme when not all core objectives are included? This relates to the notion of *implementation fidelity*, or the degree to which an intervention is delivered as intended (Carroll et al., 2007). According to the notion of "fidelity", any change that is made to a programme may be considered as a threat to its quality and effectiveness. However, this view goes against the importance that is attached in health promotion to stakeholder participation in the programme planning, implementation and evaluation (WHO, 1986).

One possibility to reconcile the need for adaptation and cultural tailoring with the need to keep the core content of a programme intact is to use the *empowerment implementation* approach (Van Daele et al., 2014). This approach proposes to equip members of the target community with the tools to identify the essential programme components, allowing to adapt the programme to the culture while maintaining its quality and effectiveness. Moreover, community members are empowered through the participatory implementation process, which is an important additional benefit.

5.3. METHODS

Literature search and selection

To identify relevant published work on the implementation of the Health Promoting University approach, a search of PubMed, Medline, Lilacs and Scielo was performed in February and March 2015. The search terms used were "Healthy University/ies" OR "Health Promoting University/ies" in either the title or the abstract. To select relevant publications, the following inclusion criteria were used: (a) Full text available in English or Spanish; (b) Published between 1995 and 2015; (c) Explicit reference to higher education or university; (d) Focus on the improvement of health and well-being for the whole university; and (e) Description of the implementation process of Health Promoting University initiative. Studies were excluded when they: (a) focused on the improvement of health and well-being of only a particular group of the

university (students or staff); or (b) did not refer to the process of implementation of the Health Promoting University approach.

Using the aforementioned procedure, 691 entries were identified from electronic databases. However, the majority did not focus on the whole university community, or used strategies aimed at a particular group. In total, after applying the inclusion criteria, 12 articles remained (Figure 1). Of those, 3 were theoretical papers, and 9 were intervention studies. The theoretical papers were included in the review because they contained recommendations for the implementation process of Health Promoting Universities. Across publications, both the terms "Healthy University" and "Health Promoting University" were used, while one intervention study used the term “Health Promoting School” (Baños et al., 2001) but concerned a higher education institution.

Analysis

Articles that met the inclusion criteria were separated into theoretical papers and intervention studies. The analysis of theoretical documents was done for each document separately, while that of intervention studies was done jointly. For both types, the selected articles were content analysed paying attention to the following: (a) definition of Health Promoting University; (b) priority areas of action; (c) items of work; (d) coordination of the project; (e) project evaluation and possible results; (f) adaptation to the cultural context. Information extracted from the articles was summarized in tables. Data extraction from the selected articles was done by the first author.

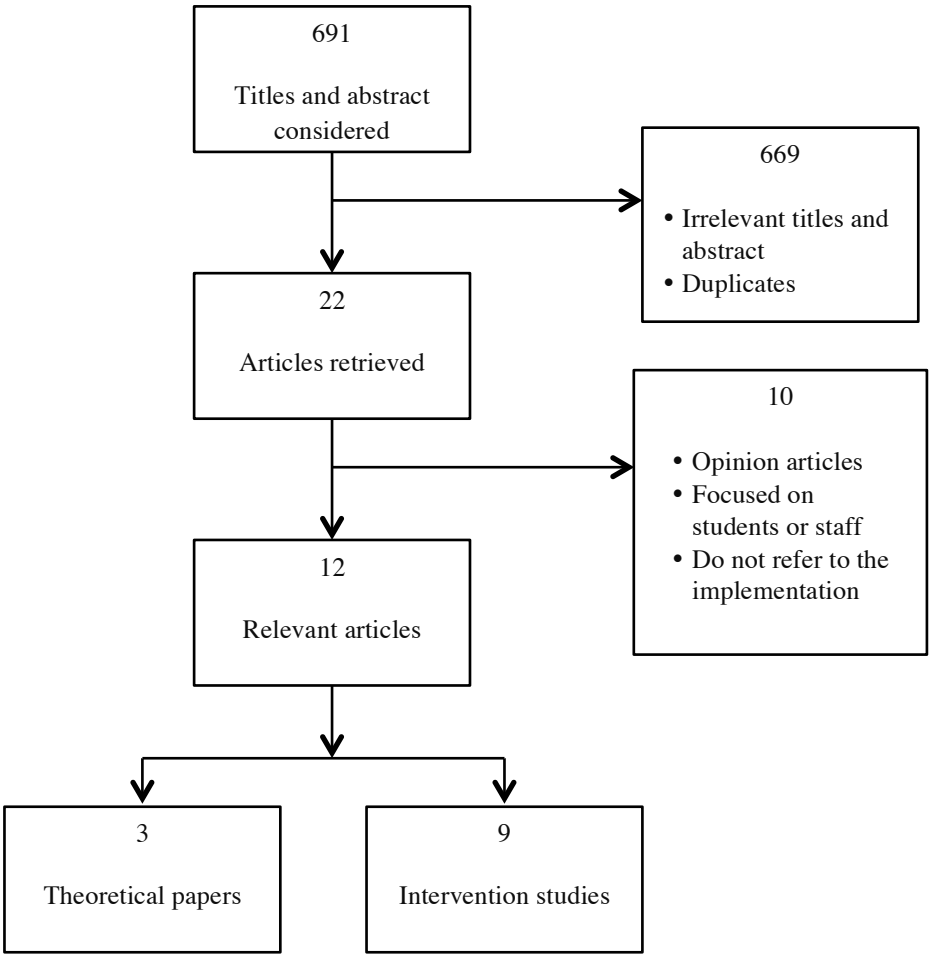

Figure 5.1. Flow chart of the selection process

5.4. RESULTS

Theoretical papers

Three theoretical papers that dealt with the implementation of the Health Promoting University concept were found in the literature. The first one was a glossary addressing key concepts associated with Health Promoting (or Healthy) Universities (Bravo-Valenzuela, Cabieses, Zuzulich, Muñoz, & Ojeda, 2013), defined as "*an institution that includes health promotion within their educational project to improve the health of their*

community members". Actions that were proposed included: information and awareness-raising on health issues, online educational activities, institutional changes and improvement of the physical environment. The glossary highlighted the importance of developing healthy policies that integrate the concept of healthy lifestyle in the curriculum and institutional culture. Evaluation was recognised as an important but complicated process the success of which depends on the physical-environmental context and available human resources.

The second document was developed by the Ministry of Health of Peru as an implementation guide for Healthy Universities (Ministerio de Salud Peru, 2010). It referred to a Healthy University as "*an institution that implements health policies, encourages learning for health, and promotes the participation of all those involved in the decision making process"*, and described it as also contributing to the eradication of poverty, hunger, maternal mortality, and other health challenges. The proposed actions included: the creation of a culture of health for the student formation; development of healthy environments; and the implementation of healthy policies. Although the importance of the evaluation was mentioned, no guidance was provided on how to carry out an evaluation of a Healthy University.

The third document was a guideline for the development of a Healthy University, developed by two universities in Chile with the support of WHO and PAHO (Lange & Vio, 2006). It defined a Health Promoting University as "*an institution that is committed to creating an environment and culture that encourages health and well-being of all its members"*. Proposed actions included: the implementation of healthy policies; the creation of an organisational structure to coordinate all actions related to health; the integration of health courses in the curriculum; and the provision of a healthy physical environment. This guideline recommended that the highest university authority should lead the strategy, and that there should be a coordinating team and a working group involving different members of the university community. Evaluation was recognised as useful to improve and redesign the programme, but details on how to evaluate a Health Promoting University were not given.

Intervention Studies

Nine intervention studies describing the implementation of the Health Promoting University concept were identified in the literature. One study reports the findings of a national-level qualitative study carried out in England, providing a summary of the activity developed by various institutions (Dooris & Doherty, 2010a). The other eight each one describe one intervention. The information extracted from these studies is summarized hereunder.

- *Definition of Health Promoting University* – All studies proposed a definition of Health Promoting University, Faculty or School (Table 5.1). Across studies, a Health Promoting University was defined as an institution that: provides a supportive environment for health; integrates health in their educational project; protects health and promotes the well-being of all community members through healthy policies. Some studies added that a university is based on the values of respect and solidarity.
- *Areas of actions* – In all studies, establishing Health Promoting Universities entails several areas of actions (Table 5.2). Seven studies mentioned the development of personal skills and knowledge regarding health, the creation of healthy environments and the incorporation of health issues in the curriculum (Baños et al., 2001; Becerra-Bulla et al., 2011; Becerra Heraud, 2013; Dooris, 2001b, 2002; Knight & La Placa, 2013; Xiangyang et al., 2003). Six studies mentioned the development of healthy policies (Dooris, 2001b, 2002; Dooris & Doherty, 2010a; Granados et al., 2009; Knight & La Placa, 2013; Xiangyang et al., 2003); and four studies mentioned activities with the local community (Dooris, 2001b, 2002; Dooris & Doherty, 2010a; Xiangyang et al., 2003). The continued provision of health services was named in two studies (Baños et al., 2001; Xiangyang et al., 2003), and in two studies the subject of healthy workplaces was also addressed (Dooris, 2001b, 2002). In one study, research was also considered an area of action (Dooris & Doherty, 2010a).

- *Items of work* – These are the health topics that are addressed in the context of a Health Promoting University. The prevention of alcohol and drugs abuse was mentioned most often, in seven of the nine studies (Baños et al., 2001; Becerra-Bulla et al., 2011; Becerra Heraud, 2013; Dooris, 2002; Dooris & Doherty, 2010a; Granados et al., 2009; Knight & La Placa, 2013); six studies mentioned activities focused on mental health (Becerra-Bulla et al., 2011; Dooris, 2001b; 2002; Dooris & Doherty, 2010a; Knight & La Placa, 2013; Xiangyang et al., 2003), healthy eating (Baños et al., 2001; Becerra-Bulla et al., 2011; Becerra Heraud, 2013; Dooris & Doherty, 2010a; Granados et al., 2009; Xiangyang et al., 2003), and sexual health and STD/AIDS prevention (Baños et al., 2001; Becerra Heraud, 2013; Dooris, 2001b, 2002; Dooris & Doherty, 2010a; Xiangyang et al., 2003). Road safety and transportation were mentioned in four studies (Dooris, 2001b, 2002; Dooris & Doherty, 2010a; Granados et al., 2009), and three studies mentioned physical activity (Becerra-Bulla et al., 2011; Dooris & Doherty, 2010a; Xiangyang et al., 2003), and smoking cessation and promotion of smoke-free spaces (Becerra-Bulla et al., 2011; Granados et al., 2009; Xiangyang et al., 2003). The prevention of chronic diseases was mentioned in two studies (Baños et al., 2001; Granados et al., 2009). Other issues mentioned included building design (Dooris, 2001b, 2002), oral health (Baños et al., 2001), family-studies relationship (Baños et al., 2001), academic performance (Baños et al., 2001) and healthy sleep (Becerra Heraud, 2013).
- *Coordination* – In five studies, the faculties of medical sciences or related careers led the Health Promoting University programme (Baños et al., 2001; Becerra-Bulla et al., 2011; Becerra Heraud, 2013; Dooris, 2002; Knight & La Placa, 2013). One study mentioned that the project was an initiative of the university authorities (Granados et al., 2009). Another study indicated that the project was a collaboration between governmental agencies supported by the WHO (Xiangyang et al., 2003). Other services in charge were the human resources/occupational health, department academic, student services and sports (Dooris & Doherty, 2010a). The presence of a steering

group was mentioned in seven studies (Becerra-Bulla et al., 2011; Dooris, 2001b, 2002; Dooris & Doherty, 2010a; Granados et al., 2009; Knight & La Placa, 2013; Xiangyang et al., 2003), five of which had representatives from different members of the university community (Dooris, 2001b, 2002; Dooris & Doherty, 2010a; Granados et al., 2009; Xiangyang et al., 2003).

- *Evaluation* – While the importance of evaluation was acknowledged in all studies, details on the type of evaluation performed were provided in only six studies (Baños et al., 2001; Becerra-Bulla et al., 2011; Becerra Heraud, 2013; Dooris & Doherty, 2010a; Granados et al., 2009; Xiangyang et al., 2003). Most evaluations involved the use of questionnaires or interviews with students, teachers and/or workers (Baños et al., 2001; Becerra-Bulla et al., 2011; Becerra Heraud, 2013; Dooris & Doherty, 2010a; Granados et al., 2009; Xiangyang et al., 2003). Questionnaires were used either to measure modifications in knowledge and health-related behaviours, or to identify needs and opinions about different aspects of the project. Only three studies reported the results of the evaluation process (Dooris, 2001b, 2002; Xiangyang et al., 2003), observing improvements in the well-being of members of the university community and in the physical and social environment. An increase in health-related knowledge and decrease in harmful behaviours among students were also reported in these studies.
- *Adaptation to the context* – Six of the nine studies provided information regarding the adaptation to the cultural context, with a view to make the programme more culturally sensitive (Becerra Heraud, 2013; Dooris, 2001b, 2002; Dooris & Doherty, 2010a; Granados et al., 2009; Xiangyang et al., 2003). Actions mentioned in this regard were the involvement of students and of academic and non-academic staff in the planning and implementation of the initiative. Four studies highlighted the participation of volunteer students in the implementation through peer education projects on issues such as sexual health and drug use (Dooris, 2001b, 2002; Dooris & Doherty, 2010a; Xiangyang et al., 2003), thus ensuring

greater credibility and acceptability by the rest of the university community. The development of health education material tailored to problems encountered by the university community was mentioned in four programmes (Becerra Heraud, 2013; Dooris, 2001b, 2002; Xiangyang et al., 2003). In three programmes, information on the needs of those involved was collected through a diagnostic process in an effort to adapt the programme to the cultural context (Becerra Heraud, 2013; Dooris & Doherty, 2010a; Granados et al., 2009).

5.5. DISCUSSION

This literature review provided an insight in the way in which the Health Promoting University concept has been implemented by universities and adapted to the cultural context. While there is a vast literature on interventions aimed at university students that focus on a single health issue (Dooris et al., 2014), only a small number of studies could be found that describe the implementation of programmes focusing on the entire university community through a whole systems approach.

This review includes initiatives developed mainly in England and Latin American countries. Other European countries, such as Spain and Germany, have also developed actions on Health Promoting Universities, although a European network has not yet fully materialized. In Latin America, on the other hand, the "Ibero-American Network of Health Promoting Universities" (RIUPS in spanish) brings together several countries, including Spain. This network has been working for over 10 years to the development of Healthy Universities (Arroyo-Acevedo et al., 2014). Initiatives have also been developed in other countries such as China (Xiangyang et al., 2003) and Thailand (Sirakamon et al., 2013). However, the reasons why Health Promoting University initiative has been developed more strongly in some countries than in others has not been fully studied.

Table 5.1. General characteristics and definition of Healthy University according to the different studies.

Reference	*Country*	*Name of the project*	*Starting date*	*Concepts*
				A healthy university is one that…
Dooris (2002)	England	Health Promoting University	1995	Seeks to develop a political context for an environment that supports health.
				Allows students to gain knowledge to make their own informed decisions.
				Finds a commitment of the university authorities.
Xiangyang (2003)	China	Health Promoting University	From 1997 to 2000	Protects the health and promotes the well-being of students, staff and the wider community through their policies and practices.
				Relates health promotion to teaching and research.
				Develops health promotion alliances and outreach into the community.
Granados (2009)	Colombia	Healthy University	2003	Develops actions to promote health.
				Encourages active participation of the community.
Dooris (2001)	England	Health Promoting University	1995	Integrates within the university's culture a commitment to health.
				Promotes health and well-being of staff, students and the wider community.
Dooris (2010)	England	Healthy University, Healthy Campus, Health Promoting University, Healthy U	Different initiatives began between 1995 and 2008	Promotes health in a specific group like students or workers.
				Raises the profile of health within the culture, structures and processes of the university.
Knight (2013)	England	Healthy University	2011	Integrates health and health promotion into the university culture.
				Adapts university policies, processes and structures to promote health.
Baños (2001)	Cuba	Health Promoting School	Not mentioned	Is based on conviviality, respect and solidarity.
				Understands that health is the result of many environmental, social and individual factors.
Becerra, F. (2011)	Colombia	Health Promoting University	2009	Incorporates health promotion into the educational project.
				Promotes human development to improve the quality of life for all its members.
Becerra, S. (2013)	Peru	Healthy University	2011	Provides a healthy environment and incorporates health issues in its curriculum.
				Promotes compliance with public health policies.
				Provides information on healthy lifestyles.

Table 5.2. Description of the aspects of implementation of healthy university in the different studies.

Reference	*Country*	*Areas of action*	*Items of work*	*Coordination*	*Evaluation*
Dooris (2002)	England	The policy process; student development; healthy workplace; healthy environments; academic development; health of the wider community.	Mental well-being; sexual health; building design; transport; drugs.	Faculty of Health.	Yes.
Xiangyang (2003)	China	University policies; health supporting environments; personal skills; health services; actions with the community.	Smoking control; mental health; STD/AIDS prevention; sexual health; physical exercise and healthy diet.	Health and education authorities of Beijing. Supported by the WHO.	Yes. Qualitative/ formative and quantitative/ summative.
Granados (2009)	Colombia	Institutional articulation; integration of health in the educative programme; prevention of diseases.	Healthy diet, smoking control, alcohol, prevention of chronic diseases, security, traffic safety education.	University Vice presidency	Yes. Quantitative/ Summative.
Dooris (2001)	England	The policy process; student development; healthy workplace; healthy environments; academic development; health of the wider community.	Sexual health, building design, transport and mental well-being.	Faculty of Health in partnership with other faculties and services.	Yes.
Dooris (2010)	England	Healthy policy; healthy environments; curriculum; research; social support systems; organisational culture; relation with the community.	Mental well-being, physical activity, healthy eating, alcohol, sexual health, smoking control, drugs, sustainability and transport.	Human resources / occupational health, academic departments, student services and sport.	Yes. Qualitative/ formative and quantitative/ summative.
Knight (2013)	England	Integration of health promotion across all schools and departments, personal skills related to health; healthy environments; and partnership with the community.	Mental well-being, isolation and drinking, work/life balance.	School of Health and Social Care.	Not reported.
Baños (2001)	Cuba	Healthy environments; self-care education; curricular changes; prevention of diseases.	Healthy diet, cardiovascular risks, alcohol, oral health, sexual health, academic performance.	Faculty of Health.	Yes. Quantitative/ summative.

Table 5.2. (Continued)

Reference	*Country*	*Areas of action*	*Items of work*	*Coordination*	*Evaluation*
Becerra, F. (2011)	Colombia	Curricular changes; health education; healthy environments; integration of health across all faculties.	By the moment healthy eating habits. In the future the aim is to work also on physical activity, alcohol, smoking control, drugs, mental well-being.	Career of Nutrition and the Students Health Department.	Yes. Qualitative/ formative and quantitative/ summative.
Becerra, S. (2013)	Peru	Health education and healthy environments.	Mental well-being, sexual health, healthy diet, smoking control, drugs, healthy sleep.	Department of Psychology department supported by the Academic Direction of Social Responsibility.	Yes. Qualitative/ formative and quantitative/ summative.

Implementing the Health Promoting University concept

The programmes described in the studies included in the review are mostly based on the guidelines of the Edmonton Charter (WHO, 2006), and incorporate the main objectives and actions of the Health Promoting University proposed by Dooris (Dooris, 2001b), as well as the success factors proposed by Xiangyang (Xiangyang et al., 2003). However, while both authors agree that the most important action is the development of a healthy policy, three of the initiatives included in the review do not reach a full implementation of this goal (Baños et al., 2001; Becerra-Bulla et al., 2011; Becerra Heraud, 2013). Since a policy provides a basis for all subsequent actions (Dooris, 2002) and ensures the sustainability of the initiative (Lange & Vio, 2006), failure to develop a healthy policy can negatively affect all other efforts to become a Health Promoting University. Universities that do not implement this component are universities that develop health promotion activities, rather than Health Promoting Universities.

The items of work that are addressed through the Health Promoting University initiatives are very similar across universities, showing that

universities focus on the most common health problems of young people (Gore et al., 2011; Stewart-Brown et al., 2000). In some cases these topics were chosen as a result of a social and epidemiological diagnosis, which allows to optimise the resources and focus on specific problems encountered by the university community. This way of working may also be instrumental in adapting the programme to particular needs defined by the cultural context, and make the programme more culture sensitive.

The programmes included in the review were most often coordinated by faculties of medical sciences. This may be because health-related careers recognise it as their duty to support the health of the university community (Whitehead, 2004b). The challenge for the health faculties is to convince the university authorities of the responsibility the university has with regard to health promotion (Lange & Vio, 2006). This is important because the alignment of the top-down commitment of the university authorities with bottom-up action are essential for a Health Promoting University programme (Dooris, 2002). Only a few studies in our review had representatives from different groups of the university community in the steering group. Actively involving members in the planning, implementation and evaluation of the programme is nevertheless important, as it allows to adapt the intervention to the specific cultural context. Moreover, by equipping stakeholders with the know-how and tools to identify and implement the essential programme components and coaching them in the implementation process, members of the community can be empowered to take on future projects themselves while maintaining faithful to the Health Promoting University principles, as proposed in the empowerment implementation approach (Van Daele et al., 2014).

To evaluate the programme, most studies assessed the modification of health-related knowledge and/or behaviours, typically using interviews and questionnaires. Effects at a more systemic level, such as the creation of a health promoting environment or the integration of health within the university culture, are less often assessed. This may be due to the inherent difficulty of assessing initiatives using the healthy settings approach (Bravo-Valenzuela et al., 2013). However, it is important to remember that the objective of a Health Promoting University is to improve the health of their

members and integrate health within the university culture. Both are long term processes, the results of which cannot be observed immediately (Tsouros et al., 1998). Further studies on the evaluation and effectiveness of healthy universities initiatives are needed.

Compliance with the Health Promoting University objectives

To guide the work of universities that have made a commitment to health, the objectives of the Health Promoting University established in the strategic framework (Tsouros et al., 1998) provide a sound basis. Successful compliance with these objectives makes that a university can be considered a Health Promoting University. In the initiatives presented in this review, the compliance with certain objectives is better in some universities than others. Providing opportunities for a healthy environment and developing personal skills and knowledge regarding health are objectives for which most universities have made important efforts. On the other hand, the implementation of healthy policies, incorporating health promotion in the curriculum development across all faculties, and developing links with the community remain challenging in three of the studies (Baños et al., 2001; Becerra-Bulla et al., 2011; Becerra Heraud, 2013). These initiatives, which have found it more difficult to comply with all the objectives, have in common that the interest to develop the Health Promoting University programme came from a particular group in a faculty or department. It appears that in that case to fulfil all objectives of a Health Promoting University is more challenging.

Cultural sensitivity of the programmes

To facilitate cultural adaptation, most studies included in this review involved members of the university community in the programme planning and implementation, and adapted educational materials to the context, while some also performed a needs analysis. These measures represent a surface structure of cultural sensitivity with a view to improve interventions acceptance (Kreuter et al., 2003; Resnicow et al., 1999). Adaptations

according to culture, religion or other deep structures were not mentioned. Sirakamon et al. (Sirakamon et al., 2013) agree that cultural aspects have not been fully considered in the Health Promoting University implementation. In that study, the authors propose that adaptations according to the values, beliefs and culture might to improve the effectiveness of the project.

An example of the importance of features of the context for implementation was given by Xiangyang et al. (Xiangyang et al., 2003), who mentioned that the peculiarity of the administrative system of universities in Beijing facilitated the process, but also recognised that in universities with a different administration the results might be different. Another study found that the presence of a national health policy, the organisational culture and the physical environment were also influential factors (Sirakamon et al., 2011).

5.6. CONCLUSIONS

Despite the few studies found, as far as we know, this systematic review is the first to describe the implementation of Health Promoting University concept in universities from different cultural contexts.

The results show that the majority of these universities work toward similar goals, relying on the framework for Health Promoting Universities. However, for some of these objectives the implementation can be challenging. Whereas the concept of Health Promoting University was developed in a western European context, it is important to consider the factors that make this initiative also succeed in different contexts. The adaptation of the Health Promoting University concept to the specific characteristics of culturally very different contexts seems to be one of them. In the few published studies that explicitly describe the implementation of the Health Promoting University approach, only adaptations of superficial cultural aspects were identified. Adaptations paying attention to deep cultural factors such as history, religion or social context, may maximize the potential of the Health Promoting University initiative. The participation of

members of the university community in the planning, implementation and evaluation process is also particularly valuable. More studies focusing on these context-dependent modifications would be more than welcome.

Finally, for these initiatives to continue developing, the political support of the authorities and the scientific and academic body is required. On the one hand, political support would need to incorporate the promotion of health in all areas and university services. On the other hand, the role of the academic and scientific community is to strengthen the exchange of results and experiences for achieving the goal of identifying models of good practice.

CHAPTER 6

HOW DO UNIVERSITIES IMPLEMENT THE HEALTH PROMOTING UNIVERSITY CONCEPT?

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6.1. ABSTRACT

Introduction: The Health Promoting University (HPU) concept encourages universities to incorporate health into the university culture, processes and policies in an effort to promote the health of the university community. Universities worldwide have adopted the approach and a framework for action has been developed to guide universities to become a HPU. However, information on how universities translate the framework into actions is scarce. This study explored the way in which 54 universities from 25 countries across the world implemented the HPU framework.

Methods: An online survey was used to assess the action areas and items of work addressed by the universities and to determine their adherence to the components of the HPU framework: use of the whole systems approach; multiservice collaboration; recognition by the university authorities; funding availability; membership of a HPU network; and evaluation of the initiative.

Results: The results showed that these components were addressed by most universities. A Multi Correspondence and cluster analysis identified 4 types of universities based on the implementation of the components: "emerging" HPUs that are not recognised by the university authorities and tend to not apply the whole systems approach or evaluation of the initiative, and "established" HPUs that are recognised by the authorities, apply the whole systems approach and evaluate the initiative but that differ with regard to funding and membership of a HPU network.

Conclusion: These results demonstrate that universities implement the HPU framework for action differently in order to become a Health Promoting University.

Keywords: Health promoting university, implementation, settings approach.

6.2. INTRODUCTION

The Ottawa Charter for Health Promotion claims that health is built where people live, play and love (WHO, 1986). One of these places is the university environment. Universities are organisations where people spend a significant part of their lives, either as students or as employees. Often, the members of these universities are or will be leaders whose ideas and values will have an impact on society (Dooris et al., 2016). The university environment thus provides a valuable opportunity to promote health and well-being (Dooris and Doherty, 2010a).

Universities across the world seize this opportunity and assume their responsibility to promote health. In doing so, they follow the principles of a *Health Promoting University* (HPU). The HPU concept is based on the settings approach to health promotion that has been successfully applied to schools, workplaces, and cities (Tsouros et al., 1998). The principles, objectives and expected outcomes of HPUs are laid out in the Okanagan Charter (Okanagan Charter, 2015). According to this charter, HPUs must incorporate health into the university culture, processes and policies, and promote an organisational culture and learning environment that enhances health, well-being, and the sustainability of its community. These measures enable the members of the university community to reach their full potential (Dooris et al., 2010a).

Experiences with the implementation of HPU initiatives are shared by a number of HPU networks around the world (Arroyo-Acevedo et al., 2014). In these networks, the more experienced universities can share their successes and difficulties with implementing the HPU concept, serving as examples for other universities. The information thus gathered helps to identify key factors in becoming a HPU. Although this process is in its infancy (Newton et al., 2016), the way HPUs are implemented is interesting for the broader field of health promotion, because it shows the translation of a conceptual framework into actions.

A framework for action

Several documents have been developed to guide universities to become a HPU. In 1998, the European Regional Office of WHO published experiences of English universities to inspire other universities in Europe to implement HPU (Tsouros et al., 1998). In 2005, the Edmonton Charter reinforced the definition and principles of a HPU and proposed the objectives to be pursued by HPUs (WHO, 2006). Ten years later, the Okanagan Charter consolidated the key principles of a HPU (Okanagan Charter, 2015), notably: (a) use of a whole systems approach that is comprehensive and participatory; (b) collaboration between sectors within and outside the university; (c) promotion of research, innovation and evidence-informed action; (d) building on existing strengths; (e) valuing local communities, contexts and priorities; and (f) acting on an existing universal responsibility.

The Okanagan Charter also established a framework for action, grouped in two calls. The first call seeks to embed health into the campus culture through five action areas: (a) embed policies and practices with attention to health; (b) create healthy environments; (c) create a culture of well-being; (d) support personal development; and (e) re-orient campus services. The second call seeks for universities to lead health promotion action and collaboration locally and globally through three additional areas of action: (f) incorporate health and health promotion into the curricula across all disciplines; (g) support research, teaching and training for health promotion; and (h) reinforce partnership and collaboration in and off university. The charter also mentions the importance of physical, mental and social well-being. Regarding this, the university typically develop strategies that addressed certain “items of work”. These items of work are essentially health topics that are common among young people and that a HPU can focus on (Gore et al., 2011).

Implementing the HPU concept

To implement the HPU framework, several key elements must be addressed. In general, the implementation of health promotion initiatives

requires paying attention to characteristics of the programme (e.g., its innovative nature or flexibility), of the context (e.g., political support, resources, or supportive policies), and of the provider (e.g., perceived needs, self-efficacy, skills) (McKay et al., 2015). In the context of HPU, Dooris and Doherty (2010) consider the application of the whole systems approach as a key element of a successful HPU implementation (Dooris & Doherty, 2010a). To allow this approach, multiservice collaboration is necessary to coordinate the initiative. Such a collaborative coordination reinforces the idea that health is everyone's responsibility, and that the initiative targets all members of the university community. Another key component of the implementation of a HPU is institutional support, which is indispensable for the sustainability of the initiative. This support is demonstrated by an official recognition of the initiative, and preferably also by the provision of funding (Arroyo-Acevedo et al., 2014; Newton et al., 2016). Other components of the implementation of a HPU are its involvement in a network and efforts to evaluate the initiative. The latter demonstrate the willingness of universities to learn and improve their initiatives (Ippolito-Sheperd, 2010).

While the key principles of HPU and the framework for action, along with the key components for their implementation, are clearly described, information on how universities make use of these guidelines to operate in a real context is scarce. To address this issue, the current study investigated the process of implementing the HPU framework in a number of universities across the world, looking at the priority action areas and items of work that are addressed by these initiatives and seeking to describe how the local and cultural context influences the way in which the HPU initiatives are implemented.

6.3. METHODS

Study design and instrument

To explore the implementation of HPUs a survey research was organised among universities belonging to HPU networks in different countries. For the survey, an adapted version was used of the questionnaire used by Dooris and Doherty (2010b) to study healthy universities in England (Dooris & Doherty, 2010a). The questionnaire was drafted in English, and then translated into Spanish. Both versions were reviewed by two bilingual experts in HPUs to ensure that the content was the same in both languages. It included closed, multiple choice, and open-ended questions and was designed in such a way that respondents could not move on to the next question until an option had been marked. For some questions, comments could optionally be added to the chosen response (close and multiple choice questions).

The questionnaire covered the following aspects: (1) *General information about the university,* which included demographic data, type of funding, location, etc.; (2) *Information about the HPU initiative*, which inquired about the membership of a HPU network, the name of the initiative, and the length of time that it was implemented; (3) *Priority areas of action*, which inquired about the objectives that guided the HPU initiative; (4) *Priority items of work,* which asked for the health issues that were addressed by the initiative (e.g., eating habits, mental health, etc.); (5) *Coordination and commitment*, which inquired about the service(s) that coordinated the HPU; and (6) *Evaluation*, which concerned any evaluation process of the HPU. Six of the closed questions assessed how universities implemented the HPU framework and its key components. These questions had two possible answers (yes/no) exploring whether HPU met the following features: (a) use of the whole systems approach; (b) multiservice collaboration; (c) recognition by the university authorities; (d) availability of funding for its operation (e) membership of a HPU network; and (f) evaluation of the initiative.

For the question regarding the use of the whole systems approach, a positive answer was followed by two other questions: application of the

initiative at the institutional level, and strategies addressed to all university community members. Only when the answers to both these follow-up questions were positive, the university was considered to use the whole systems approach. For all the six closed questions, respondents could add comments, to provide more detail about the marked option.

Sampling

Data collection took place from June to September 2016. To select the participants, a purposive sampling approach was used whereby HPU networks in different continents and countries were contacted. The coordinators of the networks were asked to distribute among their affiliates an invitation with a link to the online questionnaire. The questionnaire, made available via LimeSurvey, had to be completed by the coordinator or another person directly related to the initiative. Representatives of the universities that did not respond to the invitation sent by the network were contacted directly. At least three email reminders were sent to each potential respondent. A total of 141 universities from 48 different countries received the invitation. Of those, 54 universities from 25 countries completed the questionnaire. Of the completed questionnaires, 32 were answered in Spanish, 21 in English, and 1 in French. The overall characteristics of the participating universities are shown in Table 6.1.

Data analysis

To derive information from the questionnaire, descriptive statistics (frequencies and percentages) were computed regarding the action areas and items of work addressed by the universities and about the way the universities implemented the components proposed in the HPU framework. Next, the responses on the six closed questions regarding the implementation of the HPU components were used to group universities using a Multiple Correspondence Analysis (MCA), followed by a Hierarchical Cluster Analysis (HCA).

Table 6.1. Characteristics of the participating universities (n=54)

Variable	n	(%)
Location		
Europe		(50.5%)
Americas		(44.4%)
Others[a]	3	(5.5%)
Country classification		
High- income		(57.4%)
Upper-middle		(35.1%)
Lower middle	4	(7.4%)
Type of university		
Public		(85.1%)
Private	8	(14.8%)
Time of implementation of the initiative		
Before 2000	6	(11.1%)
Between 2000 and 2010		(27.7%)
After 2010	33	(61.1%)
Size of the University (N° of students)		
Small <10000		(22.2%)
Medium >10000 <20000		(29.6%)
Large >20000	26	(48.1%)
Ranking classification (THE)[b]		
Low >1000		(42.5%)
Medium >500 <1000		(37.0%)
High <500	9	(16.6%)
No classification	2	(3.7%)
Fees €/ year first year national student		
<1000		(24.1%)
>1000 <5000		(25.9%)
>5000 <10000	9	(16.6%)
>10000	6	(11.1%)
No information	12	(22.2%)
Gini coefficient of the country[c]		
≤0.34		(24.1%)
>0.34 ≤0.36		(25.9%)
>0.36 ≤47.7		(24.1%)
>47.7		(18.5%)
No information	4	(7.4%)

The values represent the number of universities (percentage);
[a]Including Africa and Oceania (Australia)
[b]Times Higher Education Ranking 2016
'0=complete equality; 1=complete inequality.

MCA detects underlying structures in a set of nominal or categorical data by graphically representing data as points in a low-dimensional Euclidean space. As the variables related to the implementation in our study were all dichotomous (use of the whole systems approach, recognition by the university authorities, membership of a HPU network, multiservice collaboration, availability of funding for the operation and implementation, and evaluation of the initiative), MCA allowed to assess the relationship between universities and between the variable categories (yes/no) by determining the Euclidean distance between them. An indicator matrix was constructed with the universities in the rows and the categories for each

variable in the columns. The distance between universities was determined by considering the categories they shared. The distance between categories was determined by considering the universities that selected each category. The relationships between universities and between variables could thus be graphically represented in a factor map, which along with the inspection of differentiating values allowed to create dimensions of the implementation characteristics.

Based on the MCA, a HCA was performed applying the agglomerative Ward method and using the object scores on the MCA dimensions to generate clusters of universities sharing similar profiles. Chi-square was used to test differences between clusters regarding location, country classification, type of university, and other characteristics of the universities presented in Table 6.1. The FactorMine R package was used for MCA, and SPSS version 24 was used for the HCA and Chi-square.

6.4. RESULTS

Action areas and items of work

Action areas are the objectives that universities pursue to become a HPU according to the framework for action. From a list of nine, respondents selected those which their university was working on or had worked on in the last 3 years. The action areas most often addressed by the universities in our sample were: the development of skills to improve health and well-being, the support of research in health promotion, and the development of healthy policies (Figure 6.1A). Other priority areas, such as the development of a healthy environment, development of partnerships, and the incorporation of health in the curriculum, were less often mentioned. Table 6.2 shows examples of activities that universities developed to implement the priority action areas.

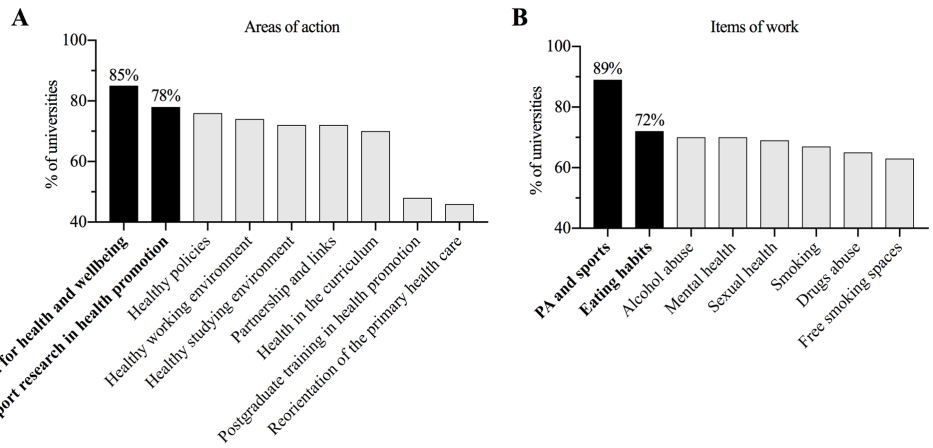

Figure 6.1. Action areas addressed by the HPU. (A) Percentage of universities addressing the action areas proposed in the HPU framework for action. (B) Percentage of universities addressing different items of work.

Table 6.2. Examples of specific activities to develop the priority areas of action

Skills for health and well-being	• Training courses or workshops on different health topics (prevention of risk factors, healthy eating habits, etc.) • Opportunities for physical activity (extracurricular courses, active breaks, bicycle loan, etc.) • Training of peer health educators
Support research in health promotion	• Health research groups focusing on life habits • Promotion of pre and postgraduate theses on health promotion • Availability of competitive funds to develop research on health promotion
Healthy policies	• Incorporation of health promotion into the mission and vision of the university • Creation of regulations to restrict the sale of alcohol, tobacco and junk food • Creation of regulations to promotes healthy eating habits and the practice of physical activity • Incorporation of policies for tobacco free spaces • Institutional policies to promote gender equity and inclusion of students with specials needs
Healthy working environment	• Prevention of occupational hazards (safe and ergonomic workplaces, workshops for stress management, problem solving system) • Opportunities for physical activity and healthy eating • Protocols for action to prevent discrimination or harassment
Healthy study environment	• Improvement of physical environments (green spaces, cafeterias, places to study and rest) • Opportunities for physical activity (regular and optional courses accessible all students) • Access to cultural activities • Day care centres for the students' children • Protocols for action in case of discrimination or harassment
Partnership and link	• Collaborations with organisations of the health and education sectors (ministries, WHO / PAHO international agencies, regional and local health centres, other universities, schools) • Cooperation with organisations of the cultural and entertainment sector (theatres, cinemas, sports centres)
Health in the curriculum	• Mandatory courses of health promotion for the careers of the faculty of health • Optional courses on health promotion for all professional careers (mental health, substance abuse, sexual health, etc.)
Postgraduate training in health promotion	• Specialized courses, Masters and PhDs programmes focused on health promotion
Reorientation of primary health care	• Counselling and guidance on lifestyle habits • Attention with integral approach, promoting physical, psychological and emotional well-being

The items of work are the health topics that are addressed within the framework for action for a HPU. Respondents selected from a list those items of work their university was working on or had worked on in the last 3 years. The items most often addressed were: promotion of physical activity and healthy eating habits, prevention of alcohol abuse, and promotion of mental health (Figure 6.1B). Table 6.3 shows examples of activities that universities developed to implement the items of work.

Table 6.3. Examples of specific activities to develop the main items of work

Physical activity and sport	• Sports and physical activity courses for all community members; hiking trails and outdoor gadgets; agreements with external fitness centres; activities for the global day of Physical Activity
Eating habits	• Healthy food and menus at the university restaurants; removal of saltshakers from restaurants; nutritionist support; courses, workshops and food information delivery and agreements with local producers
Alcohol abuse	• Awareness campaigns, information and courses on the risks of excessive alcohol consumption; research on alcohol consumption in the university community; training of peer educators; restriction on the sale and consumption at the campus
Mental health	• Awareness campaigns, information and courses on mental health and well-being; research on mental health in the university community; psychological services providing counselling, consultation, crisis intervention, and therapy; training courses addressed to professors for early identification of students at risk
Sexual health	• Awareness campaigns, information and courses on sexual health and prevention of STD; medical services providing counselling, consultation, treatment and contraception; screening for STD; condom dispenser; research; celebration of the AIDS day
Smoking	• Awareness campaigns, information and courses on the risk of smoking; medical support to quit smoking; research; celebration of the global non-smoking day/week
Drug abuse	• Awareness campaigns, information and courses on the risk of drug use; research through questionnaires applied to students; thesis and publications
Free smoking spaces	• Celebration of the global non-smoking day/week; smoking free spaces (whole institution or some buildings)

Implementation of the key HPU components

To determine the adherence to the HPU concept, the percentage of universities that applied each of the key components of HPU was considered. Each of the key components was implemented by more than 60% of participating universities (Table 6.4).

Table 6.4. Comparison among the four clusters of different HPUs

	Total N= 54	Cluster 1 "emerging" N=8	Cluster 2 "established no funding" N=12	Cluster 3 "established no network" N=9	Cluster 4 "established" N=25	*P*
Variables						
1. Whole systems approach	38 (70.3%)	4 (50.0%)	9 (75.0%)	6 (66.7%)	19 (76.0%)	0.541
2. Multiservice collaboration	34 (62.9%)	6 (75.0%)	5 (41.7%)	9 (100%)	14 (56.0%)	0.034
3. Recognition by university authorities	46 (85.1%)	0 (0%)	12 (100%)	9 (100%)	25 (100%)	< 0.001
4. Funding	42 (77.7%)	8 (100%)	0 (0%)	9 (100%)	25 (100%)	< 0.001
5. Membership of a HPU network	41 (75.9%)	4 (50%)	12 (100%)	0 (0%)	25 (100%)	< 0.001
6. Evaluation	36 (66.6%)	1 (12.5%)	10 (83.3%)	6 (66.7%)	19 (76.0%)	0.005

The values represent the number of universities (percentage) in relation to the cluster
**Including Africa and Oceania (Australia)*

a. The whole system approach was implemented by the 70% of the universities. The initiative was generally carried out at the institutional level, targeting the entire community and covering a variety of topics and strategiesto improve the quality of life, study and work conditions.

b. Multiservice collaboration was implemented by the 63% of the universities. The services most actively involved were student health service, the sports department and faculties related to health. In some cases, a special HPU group was created to lead the initiative. In the universities where such a group was created, the initiative was less associated with a specific service, allowing the initiative to be more reflective of several services.

c. Recognition of the authorities was reported by 85% of the universities. Authorities that recognised the initiative were typically the Head of the Institution (Rector or President) or the Superior Council of the university. The recognition was mostly given in the form of a signed document (resolution, declaration or policy), although in some cases it was rather informal, albeit publicly known. In some universities the support from the authorities was present from the beginning, while in other instances it was only obtained after the value of the initiative could be demonstrated (e.g., satisfaction improvements, behaviours, etc.). Universities that did not have the support of the authorities mentioned that the difficulty was often due to changes in the administration.

d. Funding was reported by 78% of the universities. Funds were earmarked specifically for the initiative or through other participating services (e.g., student health service, sports department). Other funds came from private sources or through competitive funds from the local government. Funding was considered very important to hire human resources with partial or exclusive dedication to the initiative. In those initiatives where human resources were only available through voluntary work or in parallel with other academic activities, the coordination of the initiative was much more difficult.

e. Membership of a HPU network was reported by 76% of the universities. Most participating universities were members of a regional network that was part of a larger national network, which in turn belonged to a larger international network. The *Ibero-American Network* was the most recognised one among the participating universities of Latin America and Spain, while the *Healthy Universities Network* was most often mentioned in universities in the United Kingdom and other English speaking countries. Although the latter originated as a national network in England, it currently includes universities from several countries.

f. Evaluation of the HPU initiative was implemented by the 67% of the universities. Including mostly the application of quality or life and/or

health related behaviours surveys addressed to the university community, to measure changes. In some cases, the evaluation was performed by an external organisation to obtain a certification, but in most cases it was done by the members of the university itself. Some universities mentioned the importance of a whole system focus and a participatory approach to evaluation, but also recognised the difficulty of such a process and the lack of availability of suitable tools. Universities that did not yet perform an evaluation argued that the initiative was in too early a stage of implementation, that they did not have sufficient resources, or that they did not have the tools to carry out an evaluation.

A typology of HPU universities

The results of the MCA and cluster analyses allow to differentiate universities according to their adherence to the key components of HPU. While the maximum number of possible MCA dimensions representing full variability of the data (total inertia) equalled six, the first two dimensions represented 53.55% of the variability (Dimension 1: 34.74%; Dimension 2: 18.81%). Discrimination measures were calculated for both dimensions, but revealed no differentiating values for each of the dimensions obtained. However, visual inspection revealed that the most discriminating characteristics for Dimension 1 were receiving funding and membership of a network. For Dimension 2, the most discriminating characteristics were multiservice collaboration and the recognition by the university authorities. Based on these results, Dimension 1 can be considered as representing the more "formal" characteristics of HPU, and Dimension 2 the more "conceptual" ones.

The factor map representing the positioning of the universities on the two dimensions is shown in Figure 6.2, which represents the universities as points in a two-dimensional space. The map allows to identify clusters of universities. For instance, the bottom right quadrant groups 9 universities whose initiatives are in most cases coordinated by a multiservice collaboration, receive funding and are not members of a network; whereas

the top right quadrant groups 8 universities who do not often use the whole settings approach, are not recognised by the authorities, and hardly ever evaluate the initiative.

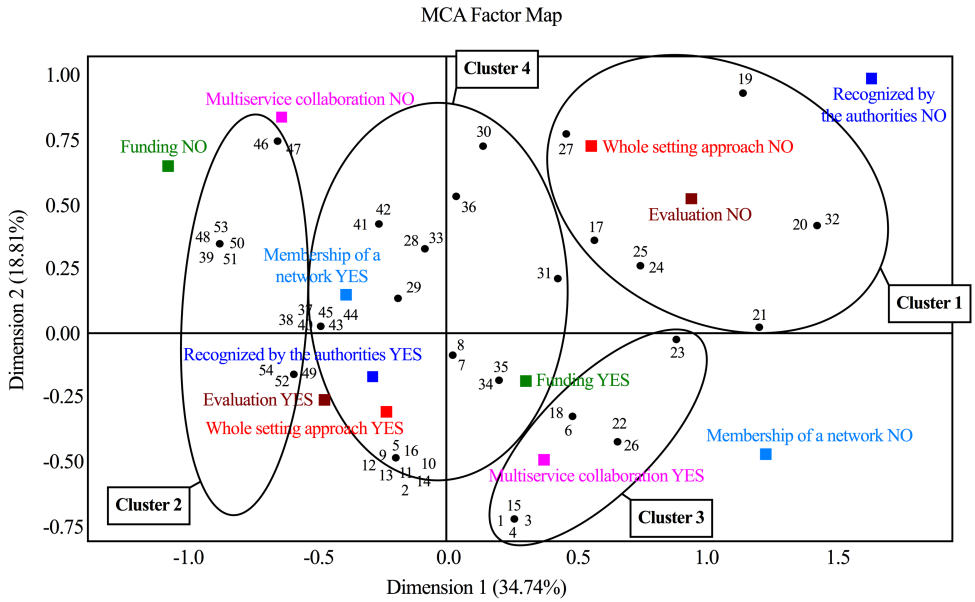

Figure 6.2. Factor map showing the result of the Multiple Correspondence Analysis (MCA). Universities are represented by black points, and the categories of the variables by colour squares. Universities with similar characteristics are close to each other forming the cluster.

A HCA based on the object scores on the MCA dimensions enabled to group the universities according to how they implemented the key components of HPU. Based on the visual inspection of the dendogram, four clusters of universities were retained. The comparisons between these clusters for the key components of HPU are shown in Table 6.4. There were significant differences between clusters on all key components, except for the whole systems approach. No significant differences were found for the descriptive variables showed in Table 6.1 among the clusters.

Based on these comparisons, the clusters can be characterised as follows:

Cluster 1 contains eight mostly European public universities that started working on HPU recently. All of them receive funding, none is recognised by the university authorities, and only half of them belong to a HPU network. The initiatives are in most cases coordinated by a multiservice collaboration, but only half of them use the whole settings approach, and evaluation is generally absent. The initiatives in this cluster could be labelled as "emerging HPU".

Cluster 2 contains twelve mostly public universities from different parts of the world. They have been working on HPU for a long period. Most of them use the whole systems approach and perform an evaluation, yet less than half of the programmes are coordinated by a multiservice collaboration. All of them are recognised by the university authorities and are members of a HPU network, but they receive no funding. The initiatives in this cluster could be labelled as "established HPU without funding".

Cluster 3 contains nine universities, many of which are based in Latin America. Their initiatives are recognised by the university authorities, receive funding, and are coordinated by a multiservice collaboration. Most of them use the whole systems approach, and perform an evaluation. However, none of these universities belong to a HPU network. The initiatives in this cluster could be labelled as "established HPU not connected to a network".

Cluster 4 is the largest cluster with twenty-five universities. All of them are recognised by the university authorities, receive funding, and belong to a HPU network. Most of them use the whole systems approach, are coordinated by a multiservice collaboration, and perform an evaluation. As such, these universities more often meet the criteria of a HPU than those in the other clusters. The initiatives in this cluster could be labelled as "established HPU".

6.5. DISCUSSION

This study described the main action areas and items of work addressed by HPU initiatives, and identified different implementation profiles for the key components of the HPU concept.

Action areas and items of work

The action areas more often addressed by HPU are the development of skills to improve health and well-being, and the support for research in health promotion. This result was expected, because among the actions proposed in the Okanagan Charter, these two are the most related to a university's mission. Developing health competences through health education is closely related to the university's educational role, consequently, the resources are already in place. Similarly, universities have resources for research, and assume the responsibility of conducting research to improve the health of their community and of the wider society (Orme & Dooris, 2010).

The development of healthy university policies is key for a successful HPU initiative. Policies that advocate for health are fundamental to the success of health promotion interventions (McKay et al., 2015). Yet our study revealed that it is less often mentioned than health education or research. This might be due to the difficulty of its implementation (Xiangyang et al., 2003). Still, the fact this action area receives some attention is positive for the future of HPUs, as healthy policies make the initiatives sustainable in the long-term (Gaviria Mendez, 2015; Sirakamon et tal., 2011).

There are numerous studies on health-related topics in the university context. Most of them focus on lifestyle factors (alcohol use, smoking, eating habits, physical activity), and/or on the effects of those lifestyle factors on the health of students and staff (Cooper and Barton, 2015; El Ansari et al., 2011; Mikolajczyk et al., 2008; Pérez-Aranibar, et tal 2005). This was confirmed in the current study, in which the most addressed items of work were the promotion of physical activity and of healthy eating habits.

This observation is in line with previous reports on HPUs (Holt et tal., 2015) and on other healthy settings initiatives (Nabe-Nielsen., et tal 2015; Stewart-Brown, 2006).

Many studies on health at universities have focused on the prevalence of health-enhancing or health-damaging behaviours among students and staff. However, few studies have focussed on how the HPU concept, which uses the whole settings approach, influences those behaviours. This type of study would provide evidence regarding the use and effects of the whole settings approach in universities, which remain a major challenge (Ippolito-Sheperd, 2010).

The current study also evaluated how the key components of a HPU have been implemented. Importantly, the results indicated that the majority of universities addressed these key components. The whole systems approach and multiservice collaboration are both cornerstones for a successful implementation of HPU initiatives. Although a recent systematic review indicated that the coordination of HPU initiatives is often assumed by health-related faculties (Suárez-Reyes & Van den Broucke, 2016), the current results show that many initiatives are coordinated through a collaboration between different services. As such, it seems that the understanding of HPUs is evolving and that health is increasingly considered a responsibility of the entire university community. This change in how HPUs are understood probably results from the influence of international networks and conferences, which offer a platform for exchange of experiences (Dooris & Doherty, 2010a).

However, not all universities implement every key component of HPU. The implementation of these components in complex organisations such as universities is challenging, therefore, each university does it its own way. Indeed, the results of the cluster analysis showed that universities implement the key components to a different extent. Two main profiles could be distinguished, “emerging” (cluster 1) and “established” (clusters 2, 3 and 4) HPU. The “emerging” HPU initiatives (cluster 1) score low on several of the HPU implementation criteria: although they receive funding, they are generally not recognised by the university authorities, seldom use

the whole systems approach, and generally do not apply an evaluation. This may be explained by the fact that these "emerging" initiatives were only recently started. On the other hand, the "established" HPU initiatives are all recognised by the university authorities, use more the whole systems approach, and generally involve an evaluation process. Within the "established" initiatives, three clusters can be distinguished that differ mainly with regard to funding and membership of a network: universities that receive no funding, but are members of a network (cluster 2); universities that receive funding, but are not members of any network (cluster 3); and universities that receive funding, and are members of a network (cluster 4). Universities in cluster 3 tend to also less often apply the whole settings approach and involve evaluate than universities in clusters 2 and 4.

The commitment of the authorities is essential for successful HPU initiatives (Arroyo-Acevedo et al., 2014; Newton et al., 2016). The initiatives in cluster 2 are recognised by the university authorities, but do not receive funding. This could suggest the authorities approve the initiative, but do not feel responsible for its operation. In contrast, universities in cluster 1 are not recognised by the university authorities, but do have funding. This suggests authorities take responsibility for the operation of the initiative, but probably, the recognition takes time to be obtained. Indeed, universities in cluster 1 are the ones that have been working for the shortest period. These universities will probably obtain the recognition of the university authorities in the future.

Noteworthy, cluster 3 is the only cluster in which none university is member of a network. These universities would thus not benefit from the experience of other universities. This isolation might explain why universities in the cluster 3 use less the whole systems approach and evaluate less than the other "established" HPU. However, more information is needed to confirm the impact of HPU networks on guiding universities to adopt other key components.

Evaluation is essential in health promotion initiatives, since it provides feedback on actions and contributes to reinforce evidence (Stock et al.,

2010). "Emerging" HPU hardly ever evaluate, which is understandable. Interestingly, although "established" HPU generally implement the evaluation process, there are still some "established" HPU that do not evaluate. The evaluation of HPU initiatives is complex. To do so, the university needs to be looked as a whole, understanding the interrelationships within and between the environments, with regard to different population groups, components system, and health issues (Dooris, 2006b). In contrast, evaluation of health promoting initiatives has been usually focused on the modification of health behaviours (Whitelaw et al., 2001). The evaluation of the HPU initiatives in the current study showed the same trend, as ascertained by the open-ended questions. It is noteworthy, however, that the evaluation in certain initiatives of the current study had a participative character, following the principles of empowered evaluation. In this approach stakeholders define what "success" is, which increases their sense of ownership and focuses evaluation beyond the behavioural change (Van Daele., et tal 2012). Auspiciously, evaluations with participative character have already been designed by some HPU networks, such as the English (Dooris et al., 2016) and the Chilean networks (Red Nacional de Universidades Promotoras de la Salud, 2013).

Limitations

While, to our knowledge, this study is the first to document on the process of implementing the HPU concept and compare universities with regard to this process, it is not without limitations. One limitation is that the study only involved universities that could be recruited through existing networks. Because a global coordination for HPU does not exist (Dooris & Doherty, 2010c), most participants were from Europe and Latin America, where regional networks exist. Another limitation is that the information that was collected through a survey study by using a questionnaire could not be confirmed by another method. However, despite these limitations, this overview of the current state of HPU implementation adds to our understanding of the HPU concept.

6.6. CONCLUSION

HPUs are spreading worldwide. Therefore, a global understanding of the initiative is essential to unify the concepts and to serve as reference. The cornerstone of this movement is the use of the whole systems approach with its associated components. Although the bases of the HPU concept are increasingly understood, the translation into actions remains a challenge. The current study showed that universities apply the HPU concept by adopting different profiles of implementation, which reflects the different phase of implementation as well as the different context.

To understand the role of the context, studies with an international focus, such as this one, provide a relevant contribution to the field of health promotion (Van den Broucke, 2016). The current results can guide the development of HPU initiatives, and will help institutions on their way to become a Health Promoting University.

CHAPTER 7

FACTORS INFLUENCING THE IMPLEMENTATION OF THE HEALTH PROMOTING UNIVERSITY INITIATIVE

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7.1. ABSTRACT

Background: The Health Promoting University (HPU) concept encourages universities to incorporate health into the university culture, processes and policies. HPU initiatives exist worldwide, yet information on how universities translate the HPU concept into actions is scarce. This study aimed to identify the factors influencing the implementation of HPU initiatives in Ibero-American universities.

Methods: Semi-structured interviews focused on the implementation of HPU were held with representatives of 17 universities that had implemented a HPU initiative. All participants had been directly involved in the initiative and had occupied a position of responsibility for the initiative for at least one year prior to the study.

Results: Political support from university authorities, a stable coordination structure, collaboration, and the participation of the university community were identified as the main factors that influence the implementation of a HPU initiative. Moderating factors included the political context, change of the university authorities, the value attached to health promotion, and the extent of the initiative. Of the main factors, support by the university authorities was considered the most important one, although some initiatives succeeded without it and managed to obtain support during the implementation process. A stable structure that coordinates the initiative and collaborations between different university services and with external organisations were recognised as facilitating factors. Within the university community, student participation is relatively easy to achieve and has a facilitating effect, while a low participation by academics and university staff was recognised as a hindering factor.

Conclusion: This study is one of the first to investigate the factors influencing the implementation of the HPU concept relying on information obtained from several universities. A better understanding of these factors will enable universities to address these factors more effectively and to develop the HPU initiative in the best possible conditions.

Keywords: Health Promoting University, implementation, qualitative study

7.2. INTRODUCTION

The university setting represents a valuable opportunity to promote health. Numerous universities around the world have used this opportunity by committing to improve the health of students and university staff. An increasing number of these universities do this by adopting a "settings approach" to health promotion, in pursuing of becoming *Health Promoting University* (HPU). The settings approach goes beyond an individual strategy to promoting health, whereby a setting (i.e., a place where people spend their daily lives, such as a school, workplace or university) is not simply considered a place where an interested audience can be found, but as a place and context that in itself functions as an important and modifiable determinant of health and well-being (Dooris, 2013; Kokko et al., 2014; Poland et al., 2009). Consequently, universities pursuing a healthy settings approach consider the physical, organisational, and social context of the university setting as an object of intervention, and try to integrate health related aspects into the institutional processes in order to create an environment that promotes health (Tsouros et al., 1998). In addition, they attach important value to participation, equity and sustainability as intrinsic values of health promotion.

Despite the growing interest in the concept of HPUs, very little evidence exists on how universities implement the HPU approach and its associated principles (Suárez-Reyes & Van den Broucke, 2016). While HPU initiatives have been implemented with different levels of success, the success of an intervention or programme to a large extent depends on the way it is implemented and sustained (Darlington et al., 2018), which in turn is influenced by contextual factors. In this regard, different implementation profiles have been observed among health promoting universities (Suárez-Reyes et al., 2018), and the types of factors that may affect the implementation of a HPU initiative have been considered. The latter include hindering, enabling, counterbalancing, and moderating factors. Factors with a moderator effect are those that influence other factors that are either enabling or hindering the implementation process (Darlington et al., 2018).

The literature on settings-based interventions shows that the factors that influence the implementation of a healthy settings initiative can be both internal and external. For instance, for health promoting initiatives in schools and hospitals, organizational capacity, political support, healthy policy and funding are the main factors that have been identified (Lee et al., 2014; McIsaac et al., 2013). These factors can have an enabling or hindering effect depending on whether they work in favour or against the initiative.

For the university setting, the literature regarding the factors that affect the implementation of a healthy settings initiative is not as well developed. Although universities that have implemented HPU initiatives have reported difficulties and opportunities that reflect the same types of enabling or hindering factors as for other settings (Dooris & Doherty, 2010a; Lee, 2002), the nature of these factors and how they impacted on the implementation process has not been well documented. One study carried out at a faculty level revealed that the main enablers of a successful HPU initiative were the support by the university authorities and the value assigned to health promotion in the faculty, and that time constrains and work overload were the main hindering factors (Sirakamon et al., 2011). However, as this study was limited to an initiative executed at a health faculty, it is not warranted to generalize and conclude that those factors also apply at the university level or in other faculties.

The HPU concept is relatively popular in the Ibero-American region (i.e., the Spanish-speaking countries of Europe and Latin America), where several HPUs exist, and an increasing interest is noticed in these initiatives as a way to strengthen health promotion in the region (Arroyo-Acevedo et al., 2014; Suárez-Reyes & Van den Broucke, 2016). This is reflected in the more than 80 universities that are currently members of the Ibero-American network of HPUs (Arroyo-Acevedo et al., 2014). The purpose of this network is to exchange experience so that universities can learn from each other and are enabled to implement the HPU approach in a way that maximizes success and sustainability. To that effect, it is useful to identify the factors that influence the implementation of a HPU initiative in different countries, and to describe how universities successfully addressed them.

The aim of this study was to identify the factors that influence the implementation of HPU initiatives in universities of the Ibero-American region. The results may inform about the factors that must be considered when implementing a HPU initiative, and provide examples of how universities deal with these factors.

7.3. METHODS

Participants

A qualitative study was conducted using semi-structured interviews with representatives of universities that implemented a HPU initiative, with a view to arrive at the construction of meaning regarding the phenomenon of interested through the interactive process of questions and answers (Hernández Sampieri et al., 2014). Purposive sampling was used to recruit key informants of each university who met the following criteria: (a) be directly related to the HPU initiative of the university in the role of coordinator, director or assessor of the initiative; and (b) have been in that position for at least one year prior to the study. The use of these criteria allowed us to obtain information from people with the best knowledge concerning the implementation of the HPU initiative, as well about any opportunities and difficulties faced during the process.

The questions aimed to retrieve the perspectives, experiences and detailed opinions of the participants regarding the HPU initiative. Coordinators have also been used as key informants in research studies in other settings (Lee et al., 2014). For practical reasons only representatives of universities from Spanish–speaking countries (Spain and Latin America) were included. All participating universities were members of the Ibero-American HPU network. To increase the chances of finding informants who were willing to participate in an interview, potential interviewees were contacted in person beforehand during the Ibero-American Congress of Health Promoting Universities held in Alicante, Spain (27- 29 June, 2017). After that, the researcher contacted the persons who had shown interest in participating by e-mail and scheduled the interviews by telephone or Skype

at convenient times. Of the 80 universities that are members of the Ibero-American HPU network, 17 representatives agreed to participate. Table 7.1 shows the characteristics of the interviewees and the institutions they represent.

Table 7.1. Informants/universities characteristics (n=17)

	N
Position	
Coordinator	11
Director	2
Other	4
Countries	
Spain	5
Latin-American countries	12
Type of University	
Public	13
Private	4

Procedure

Interviews with the key informants of these universities were carried out between June and September 2017 via Skype or telephone. Each interview lasted between 25 and 46 minutes, with a mean duration of 33 minutes and all of them were carried out in one single occasion. Although less used than face-to-face interviews, telephone and Skype interviews have several advantages, such as lower cost and access to participants from geographically dispersed regions (Iacono et al., 2016; Novick, 2008). A disadvantage of telephone interviews is the loss of non-verbal information (Iacono et al., 2016; Sturges & Hanrahan, 2004), but this problem is less present in interviews via skype.

The interviews were guided by a protocol that started with an open-ended question inquiring about the factors that influenced the implementation of the HPU in the university (*"Which factors positively/negatively influenced the implementation of the HPU initiative?"),* followed by additional questions asking for more detail following the recommendations of a semi-structured interview (Given, 2008). All interviews were tape recorded and transcribed verbatim.

Ethical considerations

Prior to the interviews, each participant was informed about the nature of the study and the expected impact of their potential involvement. The right to withdraw from the interview at any time was also explained. Consent for participating in the interviews and permission for recording were obtained from all participants. Confidentiality was guaranteed in all the interviews as well as in the manuscript.

Data analysis

Qualitative data analysis software (Nvivo Version 11 for Mac) was used to organize and code the imported transcript interviews. The transcribed verbatim records of the interviews were analysed using thematic analysis in combination with an inductive process through which significant categories could be developed from data (Terry et al., 2017). The procedure started by having the first author read all interviews carefully to know the main ideas and recurring themes, using an inductive process. Subsequent readings of the transcribed interviews were carried out to assign tentative names and definitions to the issues mentioned by the interviewees. Emerging codes were then discussed and defined by the first and second author, using labels taken from the words of participants as well as those relevant to the HPU literature. This list of codes and definitions enabled a constant comparison when coding subsequent transcripts. Frequent discussions were held to revise codes and definitions. The information contained in the interviews was categorized under the codes created in the

previous step. The information for each code given by each of the interviewees was examined, and the main ideas were summarized and presented in the results section. The summary of the information and the main ideas were discussed with the second author. Quotations were used to illustrate each idea and reflect the wording of the informants. Once all data were studied and all the factors were identified, the relationship between the factors was analysed.

7.4. RESULTS

The analysis of the interviews revealed that various factors affected the implementation of a HPU initiative in IberoAmerican universities. All the factors identified and their definitions are presented in Table 7.2. The *main factors* that were mentioned by the interviewees as affecting the implementation were political support, coordination, funding, collaborations and participation. These main factors could have either an enabling or a hindering effect. Factors that were considered as *moderating factors* included political context, change of the university authorities, the value attached to health promotion, the extension of the initiative, the availability of physical space, and communication and visibility. The pattern of the relationships between the different (main and moderating) factors is given in Figure 7.1.

Table 7.2. Factors influencing the implementation of the HPU initiative

Type	Factor	Definition
Main factors	Political support	Any recognition or support given by the authorities of the university for the implementation and development of the initiative (type of recognition, authority involved, documentation, regulation, etc.)
	Collaborations	Alliances or joint work with organisations outside and within the university and how these are developed for the implementation of the initiative (ministries, faculties, NGOs, HPU networks, etc.)
	Funding	The existence of an economic support or resources received for the operation of the HPU initiative. If such support exist, mention to who gives it, types of financing, characteristics, etc.
	Coordination	The way in which the initiative function organisationally considering people, services or units that participate and/or lead it.
	Participation	The form and level in which the different members of the university community (students, staff and teachers) are involved and are part of the initiative.
Moderating factors	Context	Any factor of the cultural, political, economic, educational or other context of the institution, region or country that affects the way in which the initiative can be implemented.
	Change of authorities	How the periods of administration (rector, coordinator, other) can influence the way in which the initiative can be implemented in a university
	Value of Health Promotion	How the health promotion is addressed in the university, its importance, value and its relationship with the central objectives of the university (mention in the speech, inclusion of health promotion in the curriculum).
	Communication and visibility	Actions and/or strategies used to publicize the initiative and to involve the university community.
	Physical space	Importance of a physical space to work and to meet that supports the development of the initiative.
	Extension of the initiative	Mention whether the initiative covers the whole or part of the university (faculty, department, campus)

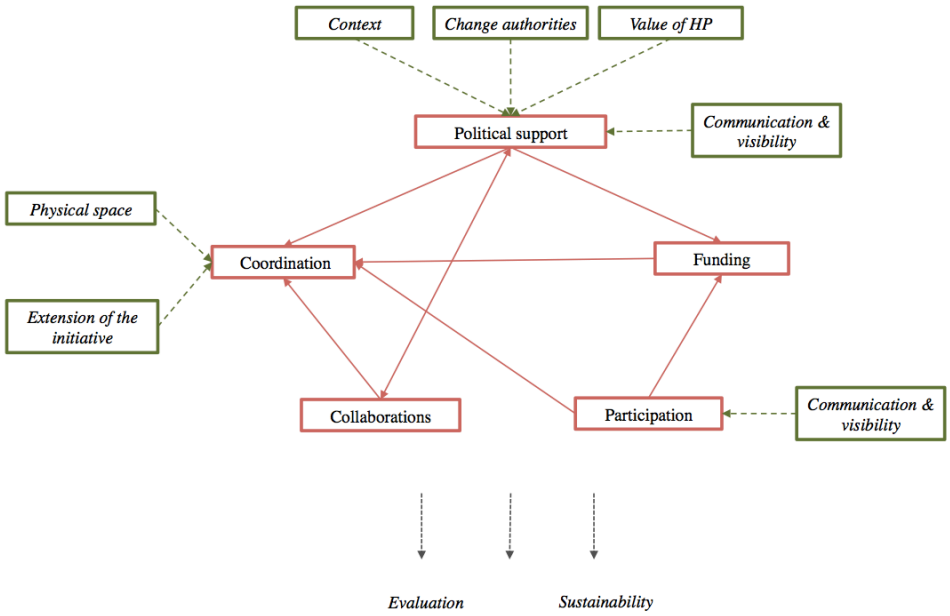

Figure 7.2. Pattern of relationship between factors influencing the implementation of a HPU initiative

Main factors

A solid *political or institutional support* is considered one of the most important enabling factors for the implementation of a HPU initiative. In many cases, this support is expressed in a declaration or an official document. Besides the need for such an "officialisation", all interviewees agreed that the institutional support must be comprehensive and demonstrated by a strong involvement on the part of the authorities, as well as by the creation of a stable structure dedicated to promote health within the university. Participants recognised that this support must transcend people and must be incorporated into the heart of the institution. When this support is only given by a single person or a group of people without institutional commitment, the sustainability of the initiative can be jeopardized.

Table 7.2. Factors influencing the implementation of the HPU initiative

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	Funding	The existence of an economic support or resources received for the operation of the HPU initiative. If such support exist, mention to who gives it, types of financing, characteristics, etc.
	Coordination	The way in which the initiative function organisationally considering people, services or units that participate and/or lead it.
	Participation	The form and level in which the different members of the university community (students, staff and teachers) are involved and are part of the initiative.
Moderating factors	Context	Any factor of the cultural, political, economic, educational or other context of the institution, region or country that affects the way in which the initiative can be implemented.
	Change of authorities	How the periods of administration (rector, coordinator, other) can influence the way in which the initiative can be implemented in a university
	Value of Health Promotion	How the health promotion is addressed in the university, its importance, value and its relationship with the central objectives of the university (mention in the speech, inclusion of health promotion in the curriculum).
	Communication and visibility	Actions and/or strategies used to publicize the initiative and to involve the university community.
	Physical space	Importance of a physical space to work and to meet that supports the development of the initiative.
	Extension of the initiative	Mention whether the initiative covers the whole or part of the university (faculty, department, campus)

"Authorities change every four years more or less... Without a formal commitment it depends on the person who is in charge at that moment how this [the HPU initiative] will work.

When the initiative has a good political support this can enable the creation of a stable structure in charge of the *coordination of the initiative*. At the same time, a lack of support from the authorities can hinder the creation of a coordinating team, which again affects the sustainability of the initiative.

"We have an institutional commitment; the initiative has to be within the framework of a structure that allows having professionals in charge". (University with political support)

"We do not have a HPU structure….For us it is very difficult to carry out the project". (University without political support).

The interviewees agreed that a multidisciplinary work team must integrate the *coordination of the initiative* with professionals from the health area but also from various other sectors (technology, communications, design, architecture, etc.)

"It is important to create an interdisciplinary working group with people from different disciplines…It [the working group] must be very broad".

This structure should not be directly associated with a single service or unit, and especially not with the health service or health faculties, in order to have a better buy-in from other areas whose central activity is not linked to health.

"Disengaging [from a specific service] and being part of a higher direction allows us to cover more space at the university and in some way helps the university community to realize that it is a programme with enough formality to adhere to the activities".

It is important that the persons who work on the initiative have exclusive or partial dedication to the initiative. When the person in charge does not have exclusive time, the development of the initiative depends on the motivation of that person to work in parallel with his or her academic and/or administrative obligations. This situation leads to an unrecognised

and undervalued overload, which can become a hindering factor for the development of the initiative.

"We have professionals who specifically have hours to dedicate to the initiative. In other universities there are teachers who in their free times work on health promotion strategies… That is difficult, it is not systematic… You cannot ensure that this lasts over time".

The interviewees perceived that the fact that those who work in the initiative do not have exclusive dedication as a lack of commitment on the part of the authorities.

Exclusive *funding* for the operation of the initiative is also seen as an enabling factor. Funding allows the initiative to be developed in better conditions than when such resources are not available.

"Having an exclusive budget would be very good... I think it would be an opportunity to create activities without any previous structure..."

Those initiatives that did not receive a specific funding from the university, or where this was considered insufficient, sometimes received resources indirectly through a specific service (student affairs service, environment, sports, etc.). In these cases, interviewees mentioned the problem of competition with other strategies developed by these services, which transforms them into unstable resources that are subject to the priorities of the moment.

"To keep what we have, sometimes we are forced to take resources from something else. The important thing is to keep it, but we could not take many steps forward, right?"

In some cases, the lack of resources is compensated by external contributions. Among the agencies that were mentioned as contributing with economic resources were municipalities, private companies and competitive funds organized by the government in different countries. Financing was mainly an enabler to hire staff for the coordination of the initiative.

"I depend on the health service of the city council [name of the city], they finance me… so I can coordinate the programme. Different formulas have been sought in these years of work, so that initiative does not disappear".

Initiatives that were able to obtain economic support from the university authorities agreed that this was a gradual process, and that it is key to demonstrate the value of the initiative to the authorities.

To counteract the lack of funding, some initiatives mentioned the adoption of other strategies, such as requesting a reduction of academic hours for professors who participated in the coordination, calls for students to participate voluntarily, scholarships for students working on the initiative, or professional internship offers for students from all areas.

Collaboration, as another enabler factor, was presented in two ways: collaboration between services and units within the university, and collaboration with agencies outside the institution and other universities. Collaborative work among various services and units to support the HPU initiative could provide the necessary human resources to contribute expertise in issues related to health promotion. Some interviewees emphasized that this type of work could even compensate the lack of exclusive funding.

> *"I have been asked often about how we have to grow and do so many things without a budget, and I think the key is that we work with many careers and services. Each one of the disciplines involved nurtures the programme".*

Collaboration outside the institution was mainly with other universities through HPU networks, with other institutions including health agencies (ministries, local or regional services), and with private companies. According to the interviewees, the main benefits of being part of a HPU network were the possibility to exchange experiences, to get support for understanding the principles of a HPU, and to share strategies and tools.

> *"In a network, other institutions share their experiences and not only tell you how good it was, but are also willing to present the methodology so you can replicate it in your institution".*

The interviewees mentioned that the support of the authorities facilitates the process of joining a HPU network. In contrast, other interviewees mentioned that when the support of the university authorities

was not well established, the support of a HPU network could serve as backup to seek the support of the university authorities.

Collaborations with health agencies outside the university was highly valued, however the interviewees also recognised that they were mainly specific collaborations that did not help the initiative to be sustainable over time.

"There is an itinerant stand that comes from the regional health service. They go through the faculties giving information about life habits and risk factors for example, but it is for that activity that day".

Most interviewees agreed that health and education authorities should assume responsibility for the development of the HPU initiative. So far, the Ministry of Health, Education or the equivalent organism is formally committed to the initiative in only a few countries. Other agencies that collaborate with the initiative include private companies, local food producers and medical laboratories.

Most of the initiatives reported that they encourage the *participation* of the entire university community in the initiative. Although many interviewees recognised that at the start the main focus of the programme were the students, it gradually incorporated the participation of the other groups (academic and non-academic staff) as well. Students represent an important human resource and their participation can be an enabler for the development of the initiative. Projects of student volunteering around health themes were the form of participation that the interviewees highlighted the most, but other forms of participation were also mentioned, such as consultation through health surveys, needs analysis, and attendance to activities related to the HPU initiative. The main challenge with this type of participation is to maintain a continuity when students are being replaced when they graduate.

"Linking students within a project should be done not only with the ones you have, but also calculate the natural relay".

Another possibility of participation for students is through the offer of scholarships and professional practices from all areas that help reinforce the initiative.

Academic staff can be encouraged to participate through the incorporation of health promotion topic in their study programmes. Professors involved in courses that are linked to health are more sensitive to this call. Some informants mentioned that it was difficult to counter the promotion of unhealthy habits by some professors, especially from courses not related to health.

> *"Some teachers of certain faculties are very demanding, often even encourage students to stay awake and study at night before taking the exams".*

With regard to the participation of non-academic administrative staff, the informants mentioned that this was mainly passive, without much involvement in the design or implementation of the HPU initiative. This could partly be explained by the lack of flexibility in their work schedules, which was reportedly a hindering factor. Some universities have implemented different strategies to foster the participation of this group.

> *"Together with them, we have created together with them a schedule of physical activity in the mornings, only for administrative staff. They do it before the start of working hours so they do not have to ask permission to anyone".*

Moderating factors

The factors with a moderator effect are those that influence other factors that are either enabling or hindering the implementation of the initiative. The main moderating factors for HPUs are the *context,* the *value attached to health promotion, changes of the university authorities, communication and visibility* of the initiative, the availability of *physical space,* and the *extension* of the initiative.

The political, educational and health context, the change of the university authorities, and the value that is given to health promotion have an influence on the political support. In this way a health promotion policy

(at local, regional or national level) that pushes the universities authorities to strengthen health promotion strategies was identified as an enabling factor.

A change at the level of the authorities of the university was generally seen as a hindering factor for the sustainability of a HPU initiative by the interviewees. This is especially the case when the HPU initiative was not incorporated into the structure of the institution, and depended on the informal support given by some of the hierarchy. On the other hand, some informants mentioned that the re-election of the authorities was a "relief", since this allowed to maintain a rhythm of work without disruptions.

A high value assigned to health promotion, especially by the university authorities, is a factor that enables the implementation of the initiative. It motivates the people who coordinate the initiate and recognises the importance of working to promote health in the university setting.

> *"An important aspect is that the team itself be committed and identified with the objective of the programme… that is basic. There are issues that would not work if the team did not identify with the objective of the programme".*

The possibilities offered by the university to communicate messages about health and to make the initiative *visible* is a factor that moderates participation and political support. In addition to the more traditional communication channels (e.g., institutional e-mail, meetings), social networks such as facebook, twitter, and instagram, have recently been added as a valuable channel to communicate within the university community, especially among students. For some universities, increasing the visibility of the HPU initiative through these means meant that it became a benchmark for health and wellbeing inside and outside the university.

Another resource that is serviceable to increase the visibility of the initiative is to have a physical workspace, although this is far from being feasible in many initiatives.

Some universities have all their faculties, units and services on the same campus, while others are spread out in different locations in a city or region. The informants whose universities operated on a single campus reported that this was an enabling factor for the development of the

initiative. In contrast, the fact of having multiple campuses was considered a hindering factor at a logistical and practical level. However, representatives of those universities that had advanced the most in the development of the HPU initiative mentioned that the difficulties related to having different campuses could be overcome with time, through the growing support of the authorities and the university community.

All the aforementioned factors can also be considered for the evaluation of a HPU initiative. Evaluation was mentioned as a basic component of any type of intervention focused on health promotion. The interviewees indicated that evaluation allowed them to know whether or not if they had reached the set objectives, and based on the results obtained, various aspects of a strategy could be improved.

"Thanks to the evaluation we carried out we identified many things that we have advanced and some others that we would need to work more".

Although all informants mentioned the importance of the evaluation to advance and improve the initiative, many of them also referred to the difficulty of carrying out an evaluation of a HPU. This difficulty was related to factors such as the lack of resources, especially human resources to carry out this task, and the lack of suitable evaluation tools.

"Now we would like to make a type of diagnostic evaluation but to do that we have to take time out and it is very complicated".

To address the lack of resources for evaluation, one possibility that was often mentioned was to task students of all grades (undergraduate, masters and doctorates) to carry out evaluation as (part of) their thesis. Some interviewees also mentioned the collaboration between institutions from different countries to focus on various aspects of the evaluation of the initiative.

7.5. DISCUSSION

The present study investigated the factors that influence the implementation of HPU initiatives in Ibero-American universities. The main factors identified were: political support, coordination, funding, collaboration and participation. All of these can have an enabling or hindering effect on the implementation and sustainability of a HPU initiative, and are moderated by factors such as the broader context, the value attached to health promotion, changes of the university authorities, communication and visibility of the initiative, the availability of physical space, and the extension of the initiative.

Main factors influencing the implementation of the HPU initiative

Political support is one of the most important factors, if not the most important, for the implementation of a HPU initiative, as it is also for other health promoting initiatives with a settings approach (Gaviria Mendez, 2015; IUHPE, 2009; Lee et al., 2014). If this political support is accompanied by an agreed-upon implementation policy, the initiative is further strengthened and become more sustainable (McIsaac et al., 2013; Sirakamon et al., 2011). However, many initiatives are launched without this fundamental support. This makes it more difficult to considerer it as a true settings approach, as the setting itself might not be the object of the actions, and may only be used as an instrument to contact groups of people who are part of the university community. On the other hand, the political support can grow as the first signals of the positive influences can be seen (Kokko et al., 2014). The political support that is thus obtained can then facilitate several processes that are necessary for the initiative, such as partnerships (Darlington et al., 2018; McIsaac et al., 2015).

One of the ways in which political support can be materialised is the creation of a stable structure for the *coordination* of the initiative. As for health promotion in other settings, it is necessary that the people who carry out the coordination of a HPU initiative have time within their work schedule to devote to the initiative (Röthlin et al., 2015). If this is not

provided, it may result in an overload of work which adversely affects the development of the initiative and the well-being of the people in charge (Sirakamon et al., 2011). Coordinators who have designated time to work on the initiative are also more likely to have executive power and direct control over the implementation process (Lee et al., 2014).

It is also important that the working group that coordinates the initiative is multidisciplinary (Orme, de Viggiani, Naidoo, & Knight, 2007). Although in most cases those who are most in favour of participating in the coordination of a HPU initiative are from health or related areas, professionals from others areas have a lot to contribute as well. The best scenario for coordination, therefore, is to have a multidisciplinary team with a leader who is trained in public health (Lee et al., 2014), and who has the background and tools to implement a health promotion initiative using a settings approach.

A third critical factor is to have sufficient *funding* for the initiative. The same has been reported for other health promoting initiatives with a settings approach (Lee et al., 2014). However, many HPU initiatives do not have such resources. Hence, along with creating a stable coordination structure, providing funding is considered a strong demonstration of political support for a HPU initiative by the university authorities. Conversely, it may be expected that for those initiatives that do not have political support, a lack of resources is likely to be a hindering factor (Sarmiento, 2017). Universities that were able to obtain economic support from the university authorities agreed that this was a gradual process, whereby it is crucial to convince the authorities of the value of the initiative. Convincing the authorities that health promotion and academic performance are intimately related is recognised as one of the main challenges that HPUs have to face (Dooris et al., 2017). An alternative is to seek financial resources outside the university. This may provide a temporary relief for the initiative, but should not be seen as a long-term solution.

A lack of resources is often the main reason for the difficulty to recruit the necessary human resources for coordination and implementation of a HPU. To compensate for this, volunteer work, scholarships and student

internships can be a way to cope with a lack of staff or to strengthen the team. Volunteering also has certain benefits for students, such as the development of skills and expanding their experiences, so it can be a strategy that benefits both sides: the HPU and the students (Williamson, Wildbur, Bell, Tanner, & Matthews, 2017).

Collaboration is an enabler for the development of a HPU initiative. This collaboration can occur between services and units within the university, with other universities and with organizations outside the university. This is similar to the findings of a study on health promoting hospitals, which suggested that the institution's authorities should establish policies of inter-sectoral collaboration, in addition to developing concrete cooperative procedures to facilitate multidisciplinary efforts (Lee et al., 2014). One of the most interesting reasons for establishing collaboration within the university is that it partly compensates for a lack of resources. This is because a university disposes of human resources from a range of disciplines that can be a great contribution to the initiative. The main challenge, however, is to convince people from other areas than health to participate in the initiative. For this, the support of the authorities is fundamental.

The collaboration with other universities around HPU networks is also an enabler for the implementation of the initiative. Networking is not only a tool to disseminate health promotion (Dietscher, 2017), it also provides opportunities to exchange experiences and improve the understanding of the concepts and principles that a guide a HPU. As such, it has the potential to improve the implementation of HPU initiatives (Gräser et al., 2011). Interestingly, joining a HPU network before having the political support of the institution can actually contribute to obtaining that support, as has also been observed in universities in other countries (Stock et al., 2010). So for universities that still struggle to obtain political support joining a network is a good first step.

Collaborations with government agencies such as the ministry of education or health are also considered important, but are often limited to specific and short-term activities. External agencies are seldom formally

committed to the initiative. More sustainable forms of collaboration would be, for instance, that a Ministry of Health offers a system of accompaniment to universities to ensure that health promotion is an essential element of their working. This could be done, for instance, by including initiatives on health in the accreditation processes for universities (Red Nacional de Universidades Promotoras de la Salud, 2013). These collaborations with organisations outside the university are very important since people live their lives moving between different settings. Many health issues addressed in the university may have their origin or effect in another setting (home, city, hospital, etc.), so all settings should prioritize networking and connectedness to improve the health of the population (Dooris, 2013; Dooris, 2004). As mentioned in Chapter 1, coordinated work between settings has been proposed under the label of a "super-settings approach" (Bloch et al., 2014). This approach could be the future of the settings approach being one of its main challenges the joint work between different stakeholders to develop health action across a wide range of interests (Dooris, 2004).

Participation is one of the most important principles of HPUs (Ader, Berensson, Carlsson, Granath, & Urwitz, 2001). Although the participation of all the members of the university community should be the objective of a HPU initiative, the most outstanding participation is that of the students. Student participation is recognised as an enabler, especially through volunteering, which, as already mentioned, has benefits for students as well (Williamson et al., 2017). Student participation can take place through consultation in health discussion groups or health needs analysis (Becerra Heraud, 2013; Holt et al., 2015; Meier et al., 2007). Such strategies are useful to know the opinions and needs of those involved and to address them appropriately (Suárez-Reyes & Van den Broucke, 2016), although it is necessary to consider that student opinions and needs will only be taken into account if these strategies are supported by the authorities (Meier et al., 2007).

The participation of academic staff was reported on the basis they incorporate topics of health promotion in their courses and programmes. This was previously reported as a way for academic staff to participate in a

HPU initiative (Duarte-Cuervo, 2015; Holt et al., 2015). As for the non-academic staff, participation was mainly passive.

Most of the types of participation mentioned above agree with low or intermediate levels of participation, where those involved have little or no power to generate changes (Arnstein, 1969; Davidson, 1998). Higher levels of participation, which correspond to a real engagement and empowerment of people (Heritage & Dooris, 2009), were little mentioned by the participants in our study. The participation of students, academics and non-academic staff (bottom-up action) (Dooris, 2002), especially at high levels has been described as the ideal in health promotion practice (Poland et al., 2009). This participation and empowerment of the community members (bottom-up action) should be in balance with the commitment of the authorities (top-down commitment), however, it is very difficult to achieve and has been recognised as one of the main challenges for HPU initiatives (Dooris, 2002).

Thus, an imbalance between the two approaches (bottom-up action and top-down commitment) could represent a barrier to the implementation of the initiative. For example, the low participation we observed on the part of academics and non-academic staff could be explained in part by a predominance of a top-down approach. Increasing the strategies that promote the participation at high levels of all those involved could correct this imbalance and improve the chances of a successful implementation of the HPU initiative. The participation of university community members can be improved if they feel that the initiative is beneficial to them and that their needs and opinions are addressed and valued (Davies & Hall, 2011; Duarte-Cuervo, 2015).

Moderating factors influencing the implementation of a HPU initiative

Political or institutional support was identified as one of the most important influencing factors for HPU initiatives. This political support, in turn, is influenced by the context, changes of the university authorities, and the value that is given to health promotion. The latter can be regarded as

moderating factors. Contextual factors that can have a major impact on the development of a health promotion initiative are structural (e.g. regulatory or legislative) issues (Bloch et al., 2014) They can either be conductive or disruptive for health promotion efforts, and should be accounted for in the planning and implementation of HPU initiatives. Although the importance of a national health promotion policy is evident (Dietscher, 2017; Sirakamon et al., 2011), its importance within the scope of this study is limited to moderating the political support given by the institution.

With regard to the educational context, reforms in different Ibero-American countries have led to an increase of the enrolment rate of students from low-income sectors. The same situation has been reported in European countries (Dooris et al., 2017) and Australia (Taylor et al., 2018). This situation can be recognised as factor with a dual effect. On the one hand, it can hinder the implementation of the initiative due to the lower resources received by the universities. On the other hand, it makes health promotion strategies and the reduction of health inequalities in the university more important and necessary than ever (Cabieses, Rice, Muñoz, & Zuzulich, 2011; WHO, 1998).

Last but not least, the value assigned to health promotion by the university authorities is a crucial moderating for obtaining their political support. If the authorities do not value health promotion it is difficult to proceed in a settings based way (Kokko et al., 2014).

7.6. CONCLUSION

The present study investigated the factors that influence the implementation of HPU initiatives in institutions from Ibero-American countries. The results suggest that the support from the university authorities is a primordial factor, as this support, or the lack thereof, will have an impact on the other facilitating or hindering factors, including collaborations, coordination, financing and participation. However, universities that do not have this support initially can try to foster it by highlighting the positive effects of the initiative when they become

apparent. The political support that is thus obtained can then facilitate several processes that are necessary for the initiative to become effective and sustainable.

CHAPTER 8

PARTICIPATION OF THE UNIVERSITY COMMUNITY MEMBERS IN THE HEALTH PROMOTING UNIVERSITY INITIATIVE

Article in preparation

8.1. ABSTRACT

Introduction: Several universities around the world have adopted the settings approach to health to create a Health Promoting University (HPU) initiative. Health promoting initiatives are built on the values of health promotion, with participation being one of the most important. Despite the above, there is little information on how university community members participate in HPU initiatives. This study aims to describe the participation of university community members in HPU initiatives in universities around the world.

Methods: An online questionnaire was applied to representatives of universities that have implemented a HPU initiative. Based on the models of community participation, the questionnaire inquired about the participation of university community members (students, professors and administrative staff) at different levels. Three levels of participation ranged from lower to higher levels were considered: a) information delivery strategies; b) consultation strategies and c) involvement in design, planning and decision-making processes.

Results: At least the 50% of the universities carried out strategies so that all the members of the community participate at all levels. Information delivery strategies were the most often used, with students being the main target group. Consultation strategies were aimed mainly at students and professors, whilst professors participated most actively in the design, planning and decision-making.

Conclusion: Different participation strategies are promoted in the HPU initiatives. Information delivery strategies, which represent the lowest level of participation, were the most reported. Higher levels of participation were less used in the HPU initiatives. HPU initiatives should seek for more strategies to provide high-level participation to all university community members.

Keywords: Participation, health promoting universities, settings approach

8.2. INTRODUCTION

Numerous universities around the world have adhered to the Health Promoting University (HPU) initiative by applying the settings approach to health (Dooris et al., 2010). By assuming this approach, universities work to create an environment that promotes the health and well-being of all those who are part of its community (Tsouros et al., 1998). The use of the settings approach is based on the values of health promotion, of which the participation of the community is one of the most important (Doherty & Dooris, 2006).

Participation is defined as a process in which people are enabled to become actively involved in defining the issues of concern to them, in making decisions about the factor that affect their lives, and in which those involved have the opportunity to influence and take part (Ader et al., 2001; Dooris & Heritage, 2013). Participation means that the actions are carried out by and with people and not on or to people (Heritage & Dooris, 2009). As the university community is made up of students, professors and administrative staff, community participation in the context of HPU is when all of these groups have the opportunity to influence and participate in the HPU initiative.

Models of community participation

Studies on community participation in other settings have described that participation can occur at different levels, taking various forms. The prototypical "ladder" model proposed by Arnstein (1969) presents participation as a continuum (Arnstein, 1969). At the lower levels of this continuum are the strategies in which those involved do not have any kind of power or influence, and the intervention is only an effort by those who deliver a service to correct what they consider necessary to change (i.e. manipulation). At the intermediate levels of the continuum are the strategies where the community receives information, can be consulted about their needs and may have the opportunity to give an opinion, although, this opinion will not necessarily be taken into account to change the course of

the initiative. At the highest level of participation, the community can take control and responsibility for the operation of the initiative, being truly engage and empowered. Only the highest levels of participation represent some degree of power for the communities.

An alternative model to consider community participation is the Davidson wheel (Davidson, 1998). This model recognises the influence of contexts and proposes to understand participation in a non-hierarchical way, represented by a wheel distinguishing between four types of participation: information, consultation, participation and empowerment. This model also allows to identify the nuances of the different types of participation. For example, information can be delivered in a minimal, limited or high quality. The same applies for other types of participation.

In universities, the level of participation by members of the university community is embedded in the university policy. In the case of HPU initiatives, the participation of the community can be at different levels whereby different roles can be adopted.

Participation of the university community

Like all settings-based initiatives, HPUs consider that a high level of participation by the different members of the university community is a key element. However, this is often difficult to achieve in practice (Poland et al., 2009; Whitehead, 2004b). This may be because many activities undertaken to promote health in the university setting only imply low levels of participation, or because not all members of the community have the same opportunities to participate at all levels. The main strategies to involve members of the university community in health actions are based on the delivery of information about health and wellbeing. For that purpose diverse channels can be used which reach all community members, but many of the activities only address health issues that concern students, leaving the rest of the university community aside (Duarte-Cuervo, 2015). The same occurs with consultation strategies, which only register the needs and opinions of some groups. A high level of participation, which is essential to HPUs, is

only achieved if all members of the community meaningfully participate in the design, planning or delivery of the activities (Davies & Hall, 2011; Duarte-Cuervo, 2015). However, this can be impeded if important decisions are in the hands of a group that concentrates all power.

The participation of the university community members in HPU initiatives, or the strategies that are used to promote participation by the university community, have hardly been investigated. To our knowledge, only two studies have addressed this issue. In a study of participation in HPU initiatives, Davies and Hall (2011) found that such participation may be hampered in several ways. The most obvious reasons that limit participation are the lack of resources (human and economic) and time constraints, which both are barriers to including university community members in all levels of participation (Davies & Hall, 2011). In another study, Dooris et al. (2016) found that the students' voice was not taken into account when planning HPU activities. Both studies acknowledge the limited participation in HPU by members of the university community, but do not consider the strategies that are or can be used to enhance participation. Furthermore, both studies are concerned with universities in the UK, whereas the need and ways of participating in organisational processes can be very different depending on the national or cultural context.

Therefore, a more in-depth investigation of the participation of the university community members in HPU initiatives is warranted. In this study, we investigated the participation in HPU programmes in universities around the world, and sought to explore the efforts that universities make to achieve the high levels of participation that are required for HPU initiatives.

8.3. METHODS

To explore the participation of the university community members, a survey study using an online questionnaire was organized among universities belonging to HPU networks in different countries around the world. The questionnaire was an adapted version of the questionnaire used

by Dooris and Doherty (2010), with which these authors sought to explore the activities carried out by healthy universities in England (Dooris & Doherty, 2010a). In addition to various questions regarding the implementation of HPUs (see Chapter 6) our version of the questionnaire included questions to explore the participation of university community members. Specifically, three questions asked how students, professors and administrative staff participated in the initiative. For each of the three groups, respondents could indicate the level or type of participation in their university by choosing amongst three options representing three levels of participation based on the models of community participation: (a) information delivery strategies; (b) consultation strategies; and (c) involvement in design, planning and decision-making. Respondents could also add details in written form about the strategies of participation. These responses were analysed and coded, identifying key themes, supported by illustrative examples and quotations.

The invitation to participate in this study was sent through various HPU networks (English network, Ibero-American network and national networks). The questionnaire was made available via LimeSurvey, and had to be completed by the coordinator of the HPU or another person directly related to the initiative. Representatives of the universities that did not respond to the invitation sent by the network were contacted directly. At least three email reminders were sent to each potential respondent. A total of 141 universities from 48 different countries received the invitation. Of those, 54 universities from 25 countries completed the questionnaire. Most of the respondents were from Europe (27) and the Americas (24), with a few additional participants from Africa (2) and Australia (1). The universities represented in the sample were both public (46) and private (8) institutions. Of the completed questionnaires, 32 were answered in Spanish, 21 in English, and 1 in French.

8.4. RESULTS

Figure 8.1A shows the percentage of universities that conduct information delivery strategies to students, professors or staff. The same is shown for consultation strategies in Figure 8.1B, and for design, planning and decision-making strategies in Figure 8.1C.

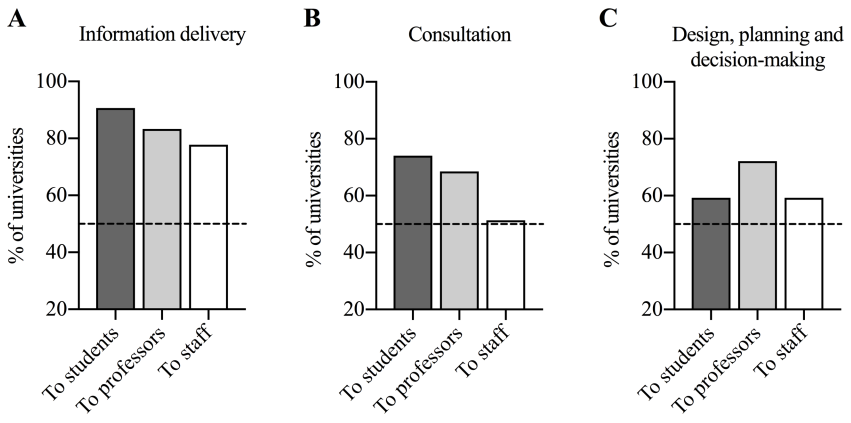

Figure 8.1. Percentage of universities addressing strategies of participation to students, professors or staff. The strategies are: (A) information delivery, (B) consultation, (C) design, planning and decision-making.

Information delivery strategies

When asked how they kept community members informed about health, 90.7% of the universities mentioned that they proactively informed students; 83.3% also informed professors and 77.8% also administrative staff about health and wellbeing (Figure 8.1.A).

The information delivery strategies mainly involved mass events like workshops, health fairs, itinerant stands, etc., carried out inside the campus, and organized by the university or by external agencies (NGOs, Ministry of Health, etc.). The topics covered a wide range including mental health, sexual health, healthy eating, recycling strategies, etc.

"Students are invited to the development of different activities related to Health Promotion. A Health Fair is held every six months" (University in Colombia).

"Sometimes [professors] attend health fairs, respond to training programmes of recycling and storage habits" (University in Mexico).

"[The staff members] participate with the students in the events, responding to the habits that are promoted" (University in Mexico).

One university mentioned that professors' attendance at the HPU events might be hampered due to the lack of time they have and the academic workload.

Another information delivery strategy used in some universities was to give students the possibility to attend regular courses with health promotion topics. In general, these courses were aimed only at students and were required courses to complete a curriculum. In some cases they involved elective courses, while others were compulsory.

"Students can register for a health promotion course as one of their academic requirements" (University in Nigeria).

Aside from attending mass events and courses, the Internet was also used as a communication medium for delivering health information. Health messages were sent through Facebook or institutional mail, or placed on the university's website.

"All are invited to participate through various media: university website, institutional mail, Facebook... we even put all kinds of healthy messages on the screens of all the computers of the university" (University in Mexico).

Consultation strategies

Of the 54 universities that participated in the study, 74.1% indicated that they consulted students, 68.5% also consulted professors, and 51.4% also the administrative staff (Figure 8.1.B.)

The most used consultation format for all three groups was the questionnaire. These focused primarily on determining health status or exploring lifestyle habits, which were often assessed with a certain frequency (e.g. every semester or once per year). The results were used to determine the health topics that would be addressed in health promotion strategies. The questionnaires were mostly administered online, using either institutional mail or social media.

Another means of consultation used are face to face contacts with members of the three groups of the university community. In some cases these were the official representatives (of the student bodies, professors and staff union). Students, in particular, were often interviewed for research on health and wellbeing in the university.

> *"[Consult student] is part of the ongoing research study, which aims to identify the key health issues to be addressed" (University in Ireland)*

> *"They [students] are consulted with a health survey that is carried out on all newcomers to all professional careers" (University in Spain)*

Some universities reported carrying out participatory diagnoses using less structured and more anonymous consultation mechanisms.

> *"Participatory diagnostic activities are carried out, such as "murals", where people can write their comments or experiences on the initiative" (University in Ecuador)*

One university indicated that professors were not consulted about their needs or health problems, but were consulted on how the HPU initiative could support their educational goals and commitment of students. Many universities recognise that the group most consulted about their needs and health problems were the students, leaving teachers and staff out of the target of the strategies designed.

Involvement in design, planning and decision-making

Of the universities surveyed, 72.2% had mechanisms in place to involve professors in the design, planning and decision-making on health; 59.3% of the universities indicated that they also included students and administrative staff in this process (Figure 8.1.C)

The participation of the university community in the design and decision-making was facilitated through various mechanisms. The most often used strategy was to incorporate of the members of the community into the health committees.

> *"We have a student health advisory committee who help guide our work" (University in Canada)*

> *"Some professors are part of the steering committee... some of them are specialists in different areas addressed by the initiative for example nutrition or physical activity" (University in Spain)*

For the design of strategies and activities, some universities used seed funds to which all members of the community could apply. These funds were intended to fund healthy initiatives.

Other mechanisms used to involve students were the creation of peer health educators or health volunteer programmes that seek to train students in various health topics so they can promote healthy lifestyles among their peers.

> *"[Students] can enrol in a training course for youth leaders in healthy habits" (University in Argentina)*

> *"They [students] participate as health promoters in the form of volunteers, professional practices, social service and internships" (University in Mexico)*

In some universities the activities developed by peer educators or health volunteers were carried out on campus and also in university residences.

"They lead campaigns to promote good living in university residences by carrying out self-regulation with codes of health behaviour among all inhabitants of the residences" (University in Colombia).

8.5. DISCUSSION

Participation is a fundamental principle that underpins health promotion. Therefore, participation should be one of the cornerstones in health promoting initiatives that use settings approach, such as the HPU. Like any community, the members of a university community have the right to participate in building a working and studying environment that provides good conditions for health (RIUPS, 2017).

The importance of participation has been widely encouraged in health promoting initiatives such as the HPU initiative. Following the Alicante declaration, a documented created after the latest Ibero-American HPU congress, a HPU should support the active participation of the university community in general. Special attention should be given to the motivation and encouragement of students for their relevant role in both the university and social environments, and to facilitating and recognising their active participation and real representativeness. Yet despite the recognition of its importance, very little empirical information is available as to how the process of installing participation in HPU is carried out in practice (Martínez-Riera et al., 2018; Sarmiento, 2017).

This study is one of the first to investigate this issue. The results show that the vast majority of universities deliver information on health to all members of the community, that most also use consultation to obtain the opinions of the different university community members, and that more than half the universities try to involve all the members of the community in the design, planning and decision-making of the health initiatives. To enhance the participation of the university community, Health Promoting Universities develop various strategies.

The importance of participation has been widely encouraged in health promoting initiatives such as the HPU initiative. Developing a participatory approach is one of the most reported facilitator to the development of any health promoting initiative (IUHPE, 2009;Lee et al., 2014). Despite the above, information about how this process is carried out is little documented (Martínez-Riera et al., 2018; Sarmiento, 2017).

Information delivery strategies

Information delivery is the most widely used way of promoting participation. This type of participation is offered to all members of the university community. In this way, students, teachers and staff are benefited. This level of participation has already been reported previously in HPU initiatives (Duarte-Cuervo, 2015) as well as in other health-promoting settings (Chiou, Chiang, Huang, & Chien, 2014). The delivery of health information is made through the use of several channels. Massive health events such fairs, seminars, talks and courses are the most used and is believed to generate changes in the habits of university students such as eating habits, stress, etc., (Gallego, Aguilar-Parra, Cangas, Langer, & Manãs, 2015; Pires & Pumerantz, 2008). Internet is other channel highly used to deliver health information. Since young people are active users of Internet and social networking sites, this channel represented a good resource to disseminate health messages and reach students in the university context (Horgan & Sweeney, 2012; Loss, Lindacher, & Curbach, 2014).

Consultation strategies

To ensure that health related activities and initiative answer the needs of the community members, consultation strategies must be put in place. The results of this study show that consultation is applied mainly to students. The most often-used method to consult the students is through self-reported surveys, although face-to-face consultations are also reported. Online surveys are a pragmatic way to get the opinion of a large group of students, but it must be kept in mind that they are not always the most

appropriate method to consult people, even when the access to internet is high (Heritage & Dooris, 2009). Consultation through discussion and focus groups on health can be a good alternative. This method has been used previously in the university setting (Holt et al., 2015; Meier et al., 2007). These studies emphasized the importance of a consultation processes, and the value for students to have the opportunity to express themselves and be listened to. It is important to add that feedback should be provided after the consultation. In this regard, Heritage and Dooris (2009) say that in general the feedback after a consultation process is not common, although its incorporation would signal to the members of the university community that their ideas and needs are taken into account (Heritage & Dooris, 2009).

Involvement in design, planning and decision-making

Participation at a high level is a key factor for the success of any health promoting initiative (Poland et al., 2009). Community participation at high level, such as an involvement in design, planning and decision-making processes, should part of a HPU initiative at every stage (Bloch et al., 2014; Heritage & Dooris, 2009). This form of participation can be promoted through different strategies, directed at all university community members including students, professors and administrative staff. Strategies that were highlighted by the participants in this survey study are the provision of seed funding for the design and planning of activities, and training community members as health promoters. The latter is meant to increase participants' knowledge, skills and self-confidence, thus empowering them to become health promoter agents for their peers, friends and family (Heritage & Dooris, 2009). For students, health promotion training can be done through volunteer programmes. Volunteering facilitates the acquisition of wider life experience and is related to positive mental effects such as a higher sense of purpose, self-steem and quality of life. In addition, it facilitates the development of new job specific skill, soft skills and civic skills. Despite these advantages, students have been under-utilised and under-researched as potential volunteers (Williamson et al., 2017).

Participation and power relationship in HPU initiatives

Previous research has shown that most HPUs develop strategies to obtain the support of the authorities of the university (Suárez-Reyes et al., 2018). This alignment with the authorities to develop a HPU initiative is considered as one of the most important determinants of success for HPU initiatives (Suárez-Reyes et al., *in preparation*). However, when a HPU initiative does not include the participation of all stakeholders, some groups that make up the university community may feel that the initiative is imposed on them, which can reduce acceptance (Poland et al., 2009). Promoting participation in a way that allows all members of the university community to have a voice in how the HPU initiative is conceived and implemented is an act of democracy and power sharing. However, university authorities may not want to change the existing power relations. This may be a reason why in many universities there is still a predominance of educational approaches to health promotion, rather than an approach that seeks organizational change. Questioning the power relationships within the university can be difficult to manage (Green et al., 2000). Yet not providing members of the university community with possibilities to participate in decision-making at high levels may cause certain groups within the community to resist to the changes that a HPU initiative tries to establish (Poland et al., 2009). The results of the present study suggest that students and staff may be the groups that are most likely to show resistance, as they are the ones to whom universities offer less opportunities to participate at high levels.

It should be noted that there is not only a difference of status between the three groups considered in this study, but also within groups. Among the students, there are status differences between graduate and postgraduate students, between national and foreign students, or students in different years of study. Likewise, among academic staff there is a difference between tenured and tenure track professors or between those with full-time or part-time appointments. And among the staff there is a difference between technical staff, cleaning staff, and those who provide administrative services. Those within each group who have the least power and possibilities to participate in a HPU initiative may well be the most

vulnerable to show a higher prevalence of health-adverse behaviours (Green et al., 2000). Therefore, HPU initiatives, with the support of the authorities, should try to motivate all community members to participate, and achieve a balance between top-down commitment and bottom-up action as a way to advocate for health (Dooris & Martin, 2002).

8.6. CONCLUSION

The aim of this study was to document the extent to which participation is achieved in HPU initiatives, and the strategies that are used to that end. The study is not without limitations. Their main limitations are that it only concerns a select sample of universities, and that the data are based on self-reports by key informants, which inevitably produces a risk of bias. It would have been useful to complement these self-reports with on-site observations, but this was not achievable within the scope and resources of the study. Another limitation was we did not considered the subgroups that existed within the students, professors and staff. In future studies about participation, it would be interesting to analyse the differences in participation at all levels within each of these subgroups.

Despite these limitations, the study does provide answers to the research questions. As the results of this study shows, the main form of participation in the HPU initiatives to date is the delivery of information. Next to that, consultation is also used, but mainly as a tool to know the health situation and to ask the opinions and needs of the community. To make this form of participation more meaningful, efforts should be made to make sure this consultation is accompanied by a feedback process, which would make it much more meaningful. Lastly, participation of all members of the university community in the design, implementation and evaluation of HPU initiatives and in the decision-making processes is present in a bit more than half of the initiatives, but needs further emphasis. After all, participation is a key value of health promotion. Therefore all those involved in actions should be engaged or represented, and besides having a

voice should also have a vote (Kokko et al., 2014). The types of participation toward which HPUs should direct their efforts, then, are those where members of the university community can participate meaningfully.

CHAPTER 9

GENERAL DISCUSSION AND CONCLUSION

9.1. GENERAL DISCUSSION

Universities provide valuable opportunities to create an environment that promotes health. While historically the university settings, like schools, workplaces, or hospitals, was considered as a place where traditional health education strategies could be implemented to encourage health-related behaviour change among students, the Ottawa Charter in 1986 introduced a more systemic way of looking at settings, by emphasizing the role of the environment in promoting health. This gave rise to the settings approach to health promotion, which in the case of universities developed into the Health Promoting University approach (Dooris, 2001b). However, compared to schools, workplaces and hospitals, the HPU approach is less well documented. Although many universities around the world are interested in the concept, and although many universities call themselves a HPU, it remains far less clear whether these universities are indeed implementing the principles and objectives that are set forward in the framework for action for HPU proposed by the Okanagan Charter. Only a handful of studies have investigated this issue, and they are mainly limited to universities in the UK. This leaves the question open as to the generalizability of their findings to universities in other cultural and societal contexts.

To fill this knowledge gap, the research presented in this thesis aimed to investigate how the concept of HPU is implemented in universities from different countries. To that effect, a series of studies were undertaken whose objectives were: to investigate the current state of the implementation of the HPU initiatives in different countries; to explore the ways in which universities translate the principles of the framework for action for HPU proposed by the Okanagan Charter into concrete activities; to identify the main facilitating and hindering factors for the implementation of the HPU approach; and to investigate the level of participation by the members of the university community.

Summary of the research findings

The first objective of this research was to review the current state of the implementation of HPU initiatives in different countries. To that end, a systematic review of the literature was performed, the results of which were presented in Chapter 5. Twelve studies could be identified that described a HPU initiative, incorporating the main areas of action and items of works proposed by the framework for HPU. The analysis of these articles enabled us to identify which of the key actions and components of the HPU framework for action were most often mentioned. We also observed that there is only a limited number of publications that detailed the implementation of their HPU initiatives.

The second study, presented in Chapter 6, was a survey study using an online questionnaire among key informants of universities that had implemented or were implementing a HPU initiative. With this survey we investigated how universities implemented the components proposed by the framework for action for HPUs. A multiple correspondence analysis of the questionnaire data showed that there are four different implementation profiles. Firstly, a broad distinction can be made between "emerging" HPUs that are not recognised by the university authorities and often do not apply the whole systems approach or evaluate the initiative, and "established" HPUs that are recognised by the authorities, apply the whole systems approach and evaluate the initiative. The latter group can be further subdivided according to whether they receive funding or are members of a national or international HPU network.

The third study, presented in Chapter 7, looked at the main facilitating and hindering factors for the implementation of the HPU initiative. For that purpose, semi-structured interviews were held with key informants of 17 universities belonging to the Ibero-American HPU network. The results of this qualitative study revealed that political support from the university authorities, a stable coordination structure, collaboration, and the active participation of the members of the university community are considered as the main factors influencing the implementation of a HPU initiative. In turn, these factors are moderated by the political context, changes at the level of

the university authorities, the value attached to health promotion, and the scope of the initiative. Of the main factors, the support of the university authorities is considered as the most important one, although some initiatives succeed without this support and manage to obtain support during the implementation process. The presence of a stable structure to coordinate the initiative and collaboration between different university services and with external organizations are seen as important facilitating factors.

The last study, presented in Chapter 8, focused on the participation of university community members (students, professors and administrative staff) in HPU initiatives. To investigate this issue we analysed additional questions of the survey study, investigating to what extent the members of the university community participated in the HPU initiatives. Three different strategies, corresponding with three levels of participation, were thereby considered: information delivery strategies, consultation strategies, and active involvement in the design, planning and decision-making about the initiative. The study revealed that, while more than half of the universities participating in the survey deployed strategies to involve the members of the university community in the HPU initiative, the main form of participation is the delivery of information to all community members, which is generally considered as the lowest level of participation. Higher levels of participation, such as consultation, was slightly more often directed at students, while participation at the highest level, i.e., taking part in the design, planning and decision making about the initiatives, more often involved professors than students or other staff. Details and examples provided by the respondents showed that the university setting lends itself to many different strategies to enhance the participation of the members of the community, but that these are not widely reported.

Discussion of the results

The implementation of Health Promoting Universities

The low number of publications describing the way HPU initiatives are implemented as found in the systematic review contrasts with the large

number of publications that describe all kind of health education strategies applied in the university context (Gallego et al., 2015; Ha et al., 2009; Pires & Pumerantz, 2008; Stock et al., 2001). This lack of information on the implementation of HPU initiatives may be due to a limited understanding of this type of complex initiatives, and to the tendency of universities to continue developing strategies with a more traditional, educational approach. As an example of the settings approach, the HPU approach is indeed a complex type of intervention that requires an understanding of its underlying theoretical foundations, such as socio-ecological theory, salutogenesis, system theory and organizational development theory. A review study revealed that HPU initiatives in practice are not always informed by theory, or that these theories are not well understood (Dooris et al., 2014). This lack of theoretical underpinning can negatively affects a clear planning, implementation and evaluation of the initiative. Hence, a better understanding of the theoretical basis of HPUs may contribute to the development of studies on this field.

On the other hand, our review of the state of the art with regard to the implementation of HPU in different contexts made clear that the (few) publications on the subject of HPU in peer-reviewed journals do not represent what happens "on the ground". Therefore, it was deemed important to investigate empirically how existing HPU initiatives are implemented in real life.

Implementation of HPU initiatives and the framework for action

As for other settings, the framework for action for HPUs has its roots in the Ottawa Charter (WHO, 1986). In this way, the university, like schools, hospitals or workplaces, tries to adopt a comprehensive approach that aims to create a supportive environment for health. The manner in which a setting like a university can implements a settings-based initiative depends on the characteristics of the setting (Kokko et al., 2014). An important feature to consider is therefore the core business of the setting that wants to implement the initiative. For instance, the core business of a school is to educate students (Langford et al., 2015), that of the hospitals is to care

for patients and to treat health problems (WHO, 1997), and that of a company is to produce goods and services (Chu & Dwyer, 2002). To guide the implementation of a health promoting initiative in line with the unique characteristics of the setting, different frameworks for action have been developed for different settings. For action on HPUs, the most recent version of the framework for action is the Okanagan Charter (Okanagan Charter, 2015). This document lists and details the principles and areas of action that a HPU should implement in order to create organisational change and create a university environment that promotes health and wellbeing.

With the survey study and the application of the online questionnaire we investigated the extent to which universities implement the key components of this framework for action. Given the breadth of the Okanagan Charter, we focused mainly on those components that according to the literature are the most relevant.

Implementing a whole systems approach

A key element in the implementation of a HPU is the application of the whole systems approach (Dooris & Doherty, 2010a). Our study results show that more than 70% of the universities involved in our study mentioned that they applied this principle in their initiatives. The respondents recognised that the approach must be applied through an institutional-level initiative, targeting the entire community and covering a variety of topics. However, it was less clear how (changes in) the whole systems approach can be measured or made observable. The difficulty to implement and evaluate the whole systems approach is well recognised as one of the challenges for generating evidence on settings-based initiatives (Dooris, 2006b). Experiences in other settings have also highlighted this problem. For instance, with regard to health promoting schools, various authors agree that the methods to produce evidence of changes at institutional level are still under development (Lister-Sharp et al., 1999; Samdal & Rowling, 2011).

The support of the university authorities

Along with the application of the whole systems approach, other components that according to the literature are key to implementing a HPU initiative are collaboration with other services, support from the university authorities, funding for the development of the initiative, membership of a network of HPUs, and engaging in an evaluation process (Arroyo-Acevedo et al., 2014; Ippolito-Sheperd, 2010; Newton et al., 2016). With regard to the application of these components, our survey study allowed to differentiate between four implementation profiles or clusters. The main difference between the two main profiles – "emerging HPU" (cluster1) versus "established HPU" (cluster 2, 3 and 4) – is the support of the university authorities for the HPU initiative. Specifically, emerging HPUs do not have the support of the authorities while the more established ones universities do have this support. The support of authorities facilitates the political process that is required to carry out changes in the system that influences the health of its members (Newton et al., 2016). Thus, the universities in clusters 2, 3 and 4 would have more possibilities to implement the initiative successfully. The universities in cluster 1, on the other hand, need to develop strategies to achieve the support of the authorities in order to make the initiative sustainable. In this regard, reference can be made to the need for advocacy for health, which is one of the main principles of the health promotion (Wise, 2001).

Political support was also a factor explored in the qualitative study presented in Chapter 7. It was recognised by the participants of this study as one of the most important factors, if not the most important, for the implementation of a HPU initiative. The same has been reported in other settings-based initiatives such as health promoting schools (IUHPE International Union for Health Promotion and Education, 2009) and health promoting hospitals (Gaviria Mendez, 2015; IUHPE, 2009; Lee et al., 2014). When this political support is accompanied by an agreed-upon implementation policy, the initiative is strengthened and becomes more sustainable (McIsaac et al., 2013; Sirakamon et al., 2011). When the initiatives do not have this support, it is more difficult to considerer it as a true settings approach initiative, as the setting itself might not be the object

of the actions, and may only be used as an instrument to contact groups of people who are part of the university community (Kokko et al., 2014).

Participation and power relationship in HPU initiatives

Participation is a fundamental principle of health promotion, especially in initiatives that follow a settings approach (Poland et al., 2009). As such, the latest declarations of the International and Ibero-American congresses on HPUs make explicit reference to participation of university community members as an objective that should be promoted for HPUs. However as we concluded from the systematic review (Chapter 5), it is not often explicitly addressed in studies focusing on HPU initiatives. Therefore, we dedicated a part of our survey study to this topic, and presented the results in a separate chapter of this thesis (Chapter 8). As the study showed, most universities that engage in HPU initiatives develop strategies to promote the participation of the members of their community (i.e., students, professors and staff), but in many cases limit the participation to information delivery, which is the lowest level of participation. Higher levels of participation, such as consultation and especially involvement in the design, planning and decision-making about the initiative, are often reserved for certain groups of the university community, such as professors.

Promoting high levels of participation is an act of democracy and power sharing. Universities that do not promote high-level participation in HPU initiatives may do so because they are opposed to changing their power structures. Questioning the power relationships within the university can be difficult to manage (Green et al., 2000). Yet not providing members of the university community with possibilities to participate in decision-making at high levels may cause certain groups within the community to resist to the changes that a HPU initiative tries to establish (Poland et al., 2009). The results of the present study suggest that students and staff may be the groups that are most likely to show resistance, as they are the ones to whom universities offer less opportunities to participate at high levels. Especially those within those groups who have comparatively less power, such as undergraduate students, foreign students, or cleaning staff, may well

be the most vulnerable. Therefore, HPU initiatives should seek the support of the authorities to try and motivate all community members to participate, and achieve a balance between top-down commitment and bottom-up action as a way to advocate for health (Dooris & Martin, 2002).

Health Promoting University initiatives in different contexts

While the systematic review revealed that there are few published studies documenting the implementation of HPU initiatives, and the survey study demonstrated that universities differ with regard to the degree to which they implement the principles and components of a HPU, the third study (Chapter 7), looked at the main facilitating and hindering factors for the implementation of the HPU initiative. This study only focused on Ibero-American universities, i.e., universities from Latin America, Spain or Portugal. This was done for practical reasons: as the initiatives developed in Iberoamerican countries are organized around the Ibero-American network of HPUs (RIUPS), it was easier to contact them. While this choice could be criticized on account of the fact that a focus on countries that share linguistic and cultural characteristics limits the generalizability of the results, additional analyses of the questionnaire data (Chapter 6) showed that there were no differences in the distribution of implementation profiles (clusters) between universities in Europe, the Americas or the rest of the world (Table 9.1).

Table 9.1. HPU initiatives by cluster and location. Europe, American region and other.

	Cluster 1 "emerging" N=8	Cluster 2 "established no funding N=12	Cluster 3 "established no network" N=9	Cluster 4 "established" N=25	*P*
Location					
- *Europe*	5 (62.5%)	6 (50.0%)	4 (44.4%)	12 (48.0%)	
- *Americas region*	2 (25.0%)	5 (41.7%)	5 (55.6%)	12 (48.0%)	0.727
- *Others*[a]	1 (12.5%)	1 (8.3%)	0 (0%)	1 (4.0%)	

[a] Including Africa and Oceania (Australia). Chi-square test N=54

When a similar comparison was made between universities in Ibero-America, in Europe, and in other countries, no significant differences were observed either (Table 9.2).

Table 9.2. HPU initiatives by cluster and location. Europe, Ibero-America and other.

	Cluster 1 "emerging" N=8	Cluster 2 "established no funding N=12	Cluster 3 "established no network" N=9	Cluster 4 "established" N=25	*P*
Location					
- *Europe*	5 (62.5%)	2 (16.7%)	3 (33.3%)	6 (24.0%)	
- *Ibero-America*	2 (25.0%)	9 (75.0%)	6 (66.7%)	18 (72.0%)	0.850
- *Others*[a]	1 (12.5%)	1 (8.3%)	0 (0%)	1 (4.0%)	

[a]Including Africa and Oceania (Australia). Chi-square test N=54

So, since the HPU programmes of the Ibero-American network included initiatives belonging to all four implementation profiles (Table 9.2), it was safe to conclude that there was enough variation within the sample with regard to the implementation of HPU to limit the qualitative study to universities of this network.

Trends in the implementation of HPU initiatives

While each of the four studies of this thesis addressed a specific question related to the implementation of the HPU, their results often confirm and/or complement each other with regard to a number of emerging issues. For example, the main areas of actions and items of work that were reported by the participants in the survey study were the same as the ones emerging from the literature review. On the other hand, while health promotion topics were not systematically reported in the studies included in the systematic review, they came out as one of the prevailing features of HPU initiatives in the questionnaire. In a different vein, the systematic review suggested that the coordination of HPU initiatives was mostly

undertaken by health faculties, while the questionnaire results showed that the coordination often relied on a collaborative effort involving several services. One possible explanation for this difference is that it reflects the influence of the Okanagan Charter, which emphasizes the importance of health promotion research and of collaboration, highlighting the privileged position of universities to develop both areas of action (Okanagan Charter, 2015). Since this document has been widely disseminated among HPUs since its launch in 2015, it may have had an impact on more recent initiatives.

The same could also apply to the place of evaluation. According to the systematic review, evaluation of HPU initiatives mostly involves the measurement of changes in health-related behaviours among students. The survey study, on the other hand, while confirming the tendency in many universities to consider evaluation in this "traditional" way, also showed that at least in some cases there was a refreshing development towards more encompassing evaluation designs that are more capable to capture the essence of a settings approach. As such, it seems to be increasingly recognised that an evaluation of a HPU should capture the whole systems approach and should have a participatory character.

Evaluation remains a challenge for health promotion in general, hence also for HPU initiatives (Bravo-Valenzuela et al., 2013). But in recent years efforts have been made to improve this situation. For instance, the self-review tool for HPU (Dooris et al., 2016), and the self-evaluation guide (Red Nacional de Universidades Promotoras de la Salud, 2013) have been created to guide and support universities in their process of undertaking a whole system approach to health and wellbeing. While the use of these and other tools has remained limited to only a few initiatives, the promotion of such tools may contribute to the collection more and better evidence on the effectiveness of HPU initiatives and on the processes that lead to effectiveness. In addition, to the extent that evaluation is undertaken in a participatory way that involves members of the university community in the planning and execution of the evaluation, it can enhance the community's capacity to evaluate, and as such induce an empowering effect that can be considered a true outcome of the initiative in its own right.

The latter links to the importance of participation, on which insight was provided throughout the different studies of this thesis. The idea that participation is key to a HPU initiative is clearly described in the framework for action. While the literature review showed that participation was a little addressed issue, the qualitative study showed that participation is nevertheless recognised as a main factor for the implementation of a HPU initiative. Furthermore, the information that was collected via the questionnaire allowed us to identify the strategies that universities use to enhance participation of their community. This leads us to think that, as the concept of HPU becomes better understood, strategies that foster and strengthen participation may become more widely implemented. As more HPU initiatives are set up, more information about participation strategies will be reported, and through this increased participation, HPUs may become more successful (Bloch et al., 2014).

9.2. REFLECTIONS ON STRENGTHS AND LIMITATIONS

By undertaking a series of studies on the operation and implementation of HPU initiatives in different parts of the world, this thesis addressed a gap in the current knowledge on HPUs. As such, it gives a global view of how such initiatives have been developed, which goes beyond the description of specific case studies or initiatives. In addition, by clearly referring to the principles of the settings approach and to the framework for action for HPU as a theoretical basis, it goes beyond the individual-oriented, educational approach that is characteristic of many health related activities in universities.

The first objective was to review the current state of the implementation of the HPU initiatives in different contexts. We approached this objective by performing a systematic review of literature. One of the main strengths of this study was the inclusion of articles in Spanish and English. In this way, the vision of the initiatives developed in Europe, Asia and Latin America could be analysed jointly, looking at their similarities and differences.

The second objective was to explore the implementation of the HPU initiatives in a number of universities worldwide. To do this, we designed a survey study and applied an online questionnaire to universities that had implemented or implemented an HPU initiative. The online questionnaire allowed us to contact representatives of universities in different parts of the world, and to obtain information on the implementation process of HPU initiatives in different cultural, economic and political contexts. We are aware of the limitations of this study, most of which are related to the use of a questionnaire to explore implementation. By using an online questionnaire, it is not possible to verify whether the information that is collected corresponds to what happens in reality. Studies on implementation in other settings have used other methods, such as observation (McIsaac, Mumtaz, Veugelers, & Kirk, 2015; McIsaac et al., 2013; 2015). In our case, observation was not possible because the participating universities were located in different countries and continents. However, in future studies, the use of more than one method to evaluate implementation would be not only desirable but necessary.

Moreover, the questionnaire that we used, which was based on an existing tool (Dooris & Doherty, 2010a), was not specifically designed to study implementation, and did not contain questions addressing all the principles and components of the framework for HPU. We instead selected the most important components to design the implementation profiles. However, while the consideration of other components might have resulted in other implementation profiles, this would have added complexity to the analysis and interpretation, without providing more information.

The third objective was to explore the factors that influence the development and the implementation of the HPU initiative. For this purpose, we conducted semi-structured interviews with representatives of universities that implemented a HPU initiative. These key informants were carefully selected to be sure they were directly related to the initiative. The interviews enabled us to get access to the opinions and experiences of the people who know the initiative the most. However, like the online questionnaire, the interviews could were applied to only one person per university. Although we were careful to select key informants who could

speak for the university, it is possible that a single individual's opinion does not reflect the whole truth. The results of this qualitative study should therefore be interpreted with caution (Kokko et al., 2014). On the other hand, the use of only one informant per initiative, in most cases the coordinator, is a common practice to investigate health promoting settings (Lee et al., 2014). Yet although these respondents are very familiar with the action, the inclusion of additional informants would have provided the possibility to control better for subjectivity of the data (Darlington et al., 2018; Kokko et al., 2014).

Because the participants were in different places, our best option to access them was to do the interviews by telephone or Skype. Although less used than face-to-face interviews, telephone and Skype interviews represent several advantages, including decreased cost and access to geographically dispersed subjects as it was in our case (Iacono et al., 2016; Novick, 2008). While the main disadvantage of the use of telephone is the loss of non-verbal information (Sturges & Hanrahan, 2004), this disadvantage could be reduced by using Skype, which represent a viable data collection tool for qualitative studies (Iacono et al., 2016).

The fourth objective was to explore the level of participation of the university community members in HPU initiatives. To achieve this, we analysed information on participation collected with the online questionnaire used in the second study. The decision to analyse these data separately was based on the finding that limited information is available about participation in HPUs in the literature (Martínez-Riera et al., 2018; Sarmiento, 2017). Considering that participation is one of the fundamental principles for health promotion, exploring this issue in HPU initiatives was seen as important. A limitation of this study, apart from the methodological issues related to the survey method already presented above, was that we did not account for the fact that each of groups considered in our study (students, professors and staff) is composed of subgroups of members with different status. In future studies about participation, it would be interesting to analyse the differences in participation at all levels within each of these subgroups.

In sum, we believe that despite the limitations mentioned for each of the studies, they represents a contribution to the field, especially given the lack of information about the implementation of initiatives using a settings approach to promote health in universities (Kokko et al., 2014; McIsaac et al., 2015; Samdal & Rowling, 2011). The results of our research represent a basis on which to continue studying the HPU initiatives.

9.3. PERSPECTIVES

The studies presented in this thesis are the first to offer a detailed analysis of the implementation of HPU initiatives in different parts of the world. As such, it opens a window for future research about the application of the settings approach and the use of the universities as a health promoting setting. Although it is well known that there are many universities around the world that have implemented a HPU initiative, scientific publications that show how this process is carried out are still scarce. Health promotion and the application of the settings approach in the university context represent a fertile ground for researchers to explore evidence on its operation and effectiveness. Encouraging the publication of scientific articles related to HPUs and other types of strategies to disseminate such initiatives are needed. Possible ways to achieve this are the publication of special editions on this subject in specialized scientific journals, the creation of a book that collects the latest experiences from different contexts, or the incorporation of more research results into the HPU congresses to complement isolated case studies.

On the other hand, universities often advertise themselves as being a HPU without complying with the key components of a HPU that are proposed in the framework for action. Some do not even adopt the whole system approach that is at the heart of a HPU. As for health promoting schools and hospitals, universities could work towards the creation of standards or a list of criteria that must be fulfilled in order to be considered a HPU. This would allow to certify universities in their state of implementation of the initiative. For this, the key components considered in

our study or other key components could be considered as the minimum characteristics that a health promoting university should implement.

The last study included in this thesis was about the participation of the members of the university community in the HPU initiatives. This study revealed that not all universities that consider themselves a HPU implement strategies that promote participation. As participation is a fundamental principle for health promotion, strategies that promote real participation in the decision making processes should be encouraged. Further research is needed focusing on the ways to involve all the groups and subgroups that exist in the university, and on how all groups, especially the least empowered ones, can participate meaningfully at different levels in a HPU initiative.

To make the HPUs initiatives that exist around the world more visible, to develop and implement a certification system, and to perform more studies on the implementation of principles of health promotion, a global coordination is required. Such coordination currently does not exist for HPU. The realisation of a global coordination should be an objective for which HPU networks should work in the coming years.

9.4. CONCLUSION

Health promoting universities exist in many countries around the world. There is a framework for action that proposes the key components and principles that must be adopted by universities to become a HPU. Universities have advanced at different rates in this process. Several implementation profiles exist, showing a high degree of variability among universities in the way in which they proceed to implement the principles and actions laid out in the framework. Both internal and external factors explain why universities advance at different rates in their journey to become a HPU. Identifying and addressing those factors, along with sharing experiences, will help in the development of more successful Health Promoting University initiatives.

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ANNEXES

QUESTIONNAIRE ON THE IMPLEMENTATION OF HEALTH PROMOTING UNIVERSITIES INITIATIVES

The aim of this questionnaire is to explore different aspects of the implementation process of the Health Promoting University initiative developed at your institution

Thank you for accessing this questionnaire

PART 1: General information

1.- Please provide the following information about your institution

Please write your answer(s) here:

Name of the institution	
Country	
City/Town	
Post Code	
Address	
Email	
Telephone number	
Name and position of the person filling in this form	
Contact information (email/telephone)	
Name and position of the person in charge of the initiative (if different)	
Contact information (email/telephone)	

2.- Type of unit where the initiative is implemented. Please feel free to write a brief description in the space provided on the right side of each option.
If you select 'Other', please explain your choice in the area accompanying text.

	Whole Institution	
	Campus	
	Faculty	
	Department	
	Other	

PART 2: Information about the Health Promoting University initiative

The following questions aim to collect information about different aspects of the Health Promoting University initiative in your institution

3.- Is the initiative in your institution based on the principles of the whole system approach?. Please choose **only one** of the following:

- [ ] Yes
- [ ] No

4.- What is the name of the initiative in your institution (does it have a title or 'brand')?. Please write your answer here:

5.- When was it established? (year). Please write your answer here:

6.- Has the initiative been recognised by the authorities of the institution? Please choose **only one** of the following:

- [ ] Yes
- [ ] No

7.- When did this recognition by the authorities of the institution occur? (year)

Only answer this question if the following conditions are met:

Answer was 'Yes' at question "5" (Has the initiative been recognised by the authorities of the institution?). Please write your answer here:

8.- Please provide a brief background, describing why and how the initiative was established**.** Please write your answer here:

9.- Describe the early stages of the initiative. Please write your answer here:

10.- Does the initiative have a website?. Please choose **only one** of the following:

- ☐ Yes
- ☐ No

11.- Please write the internet address URL of the initiative

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '9' (Does the initiative have a website?)

Please write your answer here:

12.- How does your institution define a "Health Promoting University"?

Please write your answer here:

13.- Is your institution a member of any network of Health Promoting Universities?. Please choose **only one** of the following:

- ☐ Yes
- ☐ No

14.- Please specify to which network your institution belongs
Only answer this question if the following conditions are met:
Answer was 'Yes' at question '12' (Is your institution a member of any network of Health Promoting Universities?). Please write your answer here:

15.- Have the objective of the Health Promoting University initiative been established?. Please choose **only one** of the following:

☐	Yes
☐	No

16.- What are the objectives of the initiative in your institution?. Please write your answer here:

17.- To which of the following members of the university community are the strategies of the initiative addressed??
Please choose all that apply and provide a comment:
If you select 'Other', please explain your choice in the area accompanying text.

☐	Students	
☐	Administrative staff	
☐	Professors	
☐	Other	

PART 3: Areas of action

The following questions aim to collect information on the **areas of action** or **strategies** developed in your institution in the framework of the Health Promoting University initiative

18.- What are the areas of action or strategies that your institution has worked on or is working on?
Please feel free to write a brief description in the space provided on the right side of each option.
Please choose all that apply and provide a comment:

	Development of healthy policies	
	Creation of healthy studying environment	
	Creation of healthy working environment	
	Development of skill to improve health and well-being of the community members	
	Reorientation of the primary health care with focus on health promotion	
	Incorporation of health related topics in the university curriculum (regular or optional courses)	
	Incorporation of postgraduate training in health promotion	
	Support investigation in health promotion	
	Development of partnership and links with the community	
	Other	

PART 4: Items of work

The following questions aim to collect information on the **items of work (health topics/themes)** on which your institution works or has worked in your institution in the framework of the Health Promoting University initiative **during the last 5 years.**

19.- What are the items of work (health topics/themes) that your institution has worked on/is working on in the framework of the Health Promoting University initiative? Consider programs or plans and not occasional activities Please feel free to write a brief description in the space provided on the right side

	Prevention of alcohol abuse	
	Prevention of drugs abuse	
	Mental health	
	Healthy eating habits	
	Sexual health and STD/AIDS prevention	
	Road safety and transportation	
	Physical activity and sports	
	Smoking cessation	
	Promotion of free smoking spaces	
	Prevention of chronic diseases	
	Building design	
	Oral health	
	Academic performance	
	Healthy sleep	
	Inclusion of people with disabilities	
	Waste management and sustainable development	
	Safety and accident prevention	

20.- How were these items of work (health topics) identified or selected?*
Please write your answer here:

* Refers to whether the items of work (health topics) were selected after a health survey, needs analysis, or other processes

PART 5: Coordination of the initiative

The following questions aim to collect information about how the Health Promoting University initiative is coordinated in your institution

21.- Who leads the Health Promoting University initiative in your institution?
Please feel free to write a brief description in the space provided on the right side of each option. Please choose all that apply and provide a comment:

	Health services	
	Human resources services	
	Academic Department	
	Students' Union	
	Other	

22.- Has a senior management commitment been secured?. Please choose **only one** of the following:

- [ ] Yes
- [ ] No

23.- Please describe how the initiative obtained this senior management commitment

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '20' (Has a senior management commitment been secured?). Please write your answer here:

24.- Please describe how the initiative plans to achieve the senior management commitment *

Only answer this question if the following conditions are met:

Answer was 'No' at question '20' (Has a senior management commitment been secured?). Please write your answer here:

25.- Does the initiative have a steering/advisory group?. Please choose **only one** of the following:

- ☐ Yes
- ☐ No

26.- Does the initiative have a dedicated project coordinator/manager?. Please choose **only one** of the following:

- ☐ Yes
- ☐ No

27.- Please briefly describe details about the project manager position, such as the grade, type and duration of the position, job description or person specification (this information will be treated confidentially).

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '24' (Does the initiative have a dedicated project coordinator/manager?). Please write your answer here:

28.- Please describe briefly what are the key staffing resources contributing to the initiative. Please write your answer here:

29.- Does your initiative have established links or partnership with external agencies or institutions?. Please choose **only one** of the following:

- [ ] Yes
- [ ] No

30.- Please describe with what kind of institutions the initiative in your institution has developed such partnership or links

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '27' (Does your initiative have established links or partnership with external agencies or institutions?). Please write your answer here:

PARTE 6: Evaluation

The following questions aim to collect information about the evaluation process of the Health Promoting University initiative in your institution

31.- Does the Health Promoting University initiative developed in your institution include an evaluation stage?. Please choose **only one** of the following:

- [ ] Yes
- [ ] No

32.- How has the institution evaluated or plans to evaluate the Health Promoting University initiative?

Only answer this question if the following conditions are met:

Answer was 'Yes' at question '32' (Does the Health Promoting University initiative developed in your institution include an evaluation stage?). Please write your answer here:

PARTE 7: Final reflection

33.- If you would like to provide further information about the Health Promoting University initiative developed by your institution or a particular aspect of it, please use the space below to tell us about it in your own words. Please write your answer here:

Thank you for taking the time to complete this questionnaire and for participating in this research