Mental Health Service Networks

The Challenge of Articulating Community Care and Integrated Care

Pablo Nicaise

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Institute of Health & Society (IRSS)

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Thesis submitted for the degree of 'Docteur en Sciences de la Santé Publique'

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Front cover
Der **Narrenturm** - Vienna
The Narrenturm *(Fool's Tower) in Vienna was built in 1784 and is Europe's oldest building for the accommodation of mentally ill patients. It made part of the* Allgemeines Krankenhaus*, established by Emperor Joseph II in an attempt to centralise medical care in Vienna. By the 18th century, centralisation was the trend in medicine because doctors were requesting improved facilities. The Narrenturm points to a new attitude towards mental illness that was acknowledged as an issue requiring its own specific facilities.*
Centralisation, however, caused epidemics and a 20% death rate in the new hospital issue. And by the late 1790s the tower had already been made fully obsolete by innovations in the treatment of mental patients…

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Chapter I:
Introduction
Mental Health Service Networks

1. General background

On a yearly basis, psychiatric and mental health disorders are said to account for around 20% of the Disability Adjusted Life Years (DALY) worldwide, and over the lifetime, they could affect up to one quarter of the world population. Five out of the ten leading causes of years lived with disability are mental and behavioural disorders: depression, alcohol and drug abuse, dementia, and psychotic disorders [1;2]. Particularly since that 2001 was declared a "Year of Mental Health" by the World Health Organisation (WHO), mental health has made its ways onto the public health policy agenda.

To face this public health issue, the topic of how mental health care is delivered has grown in importance, as for some decades mental health care delivery has been going through considerable

change. Some Western countries have pioneered important reforms in their mental health care delivery systems, including the UK and the USA as early as the 1950s and 1960s and Italy in the 1970s. These reforms aimed to implement a supply of care based in the community, in the context of the so-called "deinstitutionalisation" movement. Care in the community refers to a specific approach to long-term, chronic, and disabling disorders that aims to maintain the patient in his/her living and social environment rather than treating him/her in an institutional setting. The maintenance of the patient in his/her usual environment should help to stabilise him/her, to find solutions adapted to his/her complex, long-term needs, and to facilitate the collaboration of family and friends in care. Community care was favoured by many converging factors [3]. New medications and new psychotherapeutic treatments developed since the 1950s made it possible to treat mentally ill persons in community settings. New ideas on mental health and illness gained ground: these included the Anti-Psychiatry Movement of the 1960s, which saw mental disorders as a social construct and psychiatry as one of the armed wings of the state, and the Survivor Movement, which aimed to defend the civil rights of people locked up in psychiatric hospitals. The scope of mental health and illness also evolved with social psychiatry, based on the bio-psycho-social model: mental health was acknowledged as one of the components of overall health and mental disorders were recognised as potentially affecting anybody. The impact of the social context on mental illness was also increasingly taken into account in terms of social determinants of illness and in terms of social support to sustain

patients with long-term needs. This also favoured the emergence of the recovery model of care in the 1980s, which emphasises a certain capacity of users to develop a satisfying and meaningful life even with the limitations imposed by illness [4]. Finally, changes occurred in funding and fiscal systems for health delivery and welfare, based on the assumption that institutional care was more expensive, or at least less cost-effective than community care [3;5;6]. Although deinstitutionalisation was achieved long ago in those pioneering countries, it is still in progress elsewhere, for example in Eastern Europe countries, in Japan [7;8], and, to some extent, in Belgium [1].

At the same time, mental health care delivery systems, and particularly community-based systems, had to face another challenge, that of fragmentation in health care delivery [9;10]. Fragmentation means a lack of continuity of care. According to Bachrach [11], continuity of care for chronic mental health care users is a process of uninterrupted contact of patients with the diverse elements of the care delivery system. It involves multiple dimensions, including longitudinal continuity (between episodes of care), cross-sectional continuity (across episodes of care), and a series of characteristics at the level of the relationships between patients and health care providers (individualised care, flexibility, communication, experienced continuity) and at the level of the relationships between health providers (e.g. accessibility, information) [11-14]. In the latter case, fragmentation can be related to a lack of coordination between health, mental health, social care, and other care providers. Fragmentation is partly due

to factors similar to those that favoured deinstitutionalisation: the multiplication of treatment types and practices, the enlargement of the scope of mental health and illness to include the social determinants of health, and welfare policies separated by distinct funding schemes for health, mental health, and social care policies etc. [4]. Fragmentation particularly affects the most vulnerable populations, with multiple and complex needs: severe and chronically mentally ill patients, populations with psychiatric disorders and social deprivation, children, elderly people, and ethnic minorities [15-21]. The lack of integration may also have other consequences, such as an increase in the resort to coercion and compulsory treatment due to a lack of sufficient psychiatric beds combined with failures in the continuity of care [22;23]. Fragmentation may also increase the likelihood of homelessness and the burden of disease for carers and families [22;24-26].

The two purposes of implementing community-based care and reducing the fragmentation in mental health care delivery may appear to be at odds with each other. Fragmentation, after all, was found to be greater in community-based models of care [27-29]. The community care approach did indeed cause the closure of holistic but integrated services such as psychiatric hospitals, which were replaced by multiple specialised teams [4;30]. Mental health care systems grew in complexity, both for users and for managers and funders. However, international plans and policies, such as the Mental Health Declaration for Europe signed in 2005 in Helsinki [31], recommend extensive reforms of national mental health systems with a view to addressing both issues simultaneously:

"The priorities for the next decade are to…design and implement comprehensive, integrated and efficient mental health systems that cover promotion, prevention, treatment and rehabilitation, care and recovery,…offer effective care in community-based services for people with severe mental health problems, …[and] *establish partnerships across sectors*" [31;32].

Networks of services were often designated, in care policies as well as in the scientific literature, as a means of meeting this challenge [14;28;33-46]. This is, for example, the case in Belgian policy, where the concept has underlain several phases of reform since the first decade of the century [47-50]. What are generally referred to as networks of mental health services involve some form of collaboration between and coordination of separate agencies at an inter-organisational level that would provide clinical integration in care delivery. However, despite the continuous interest taken in networks of services by scholars in organisational studies and public management as well as public health policymakers since the 1960s, it remains unclear what these networks are and how they could effectively address issues of continuity of care and care integration in community-based settings.

There is an extensive but quite heterogeneous literature from separate research traditions about networks of health services, particularly in mental health. On the one hand, public mental health, clinical, and health services research has investigated the concept of system integration, with specific attention to collaborative structures for health providers at the system level

and to their capacity to provide continuity of care at the user level. Several studies of the conditions and quality of collaboration between health professionals have also been published. On the other hand, organisational and management science has focused on inter-organisational networks as a specific type of organisation, with a more particular interest in their shape, their emergence, their evolution, and some of their organisational outcomes, such as learning and the diffusion of innovation [51]. Some scholars belonging to this tradition have chosen mental health-care delivery networks as a specific field of observation.

This vast literature and the numerous approaches taken to health service networks demonstrate their complexity. Indeed, networks are sometimes considered as ***structures***, i.e. formal partnerships between specific services, with a particular focus on the structural patterns of their relationships. This approach looks at the type of health providers that ought to be interconnected in order to deliver comprehensive care to patients and at the division of tasks between the different care agents, including the patient him/herself. At other times, networks are considered as ***processes*** of exchange and collaboration. This concerns the nature of the exchanges, e.g. resources and information, tangible (funds) or intangible (trust) goods, and even patients. This approach also looks at the mechanisms used to facilitate collaboration within networks, e.g. learning, formal tools for information exchange, meetings, coordination, and collective planning. Finally, a network may also be considered as an ***outcome*** emerging from an inter-organisational process. Even when there is no formal collaboration

planned between different agents, it may occur that patients circulate between them and that information is also exchanged. In such cases, the actual pathways of patient care and information flows between different services may also be described as a network resulting from this interaction [52].

Furthermore, the relations between the organisation of mental health service networks and their outcomes are also complex to describe and assess, as these outcomes are expected at several interrelated levels of activity: the level of the **user**, e.g. in terms of the evolution of his/her disorders, social integration, satisfaction with care, and perceived continuity of care; the level of the individual **services**, e.g. in terms of quality of collaboration, information exchange, and adaptation to the needs of users; and the level of the **whole network**, e.g. in terms of global accessibility, longitudinal and cross-sectional continuity of care, and cost-effective care delivery [4;53].

Because of this complexity, several key issues were addressed separately in relation to the definition and scope of networks of (mental) health services, the nature and structure of the relationships that exist within such networks, processes of collaboration and governance, and methods of assessing their potential outcomes [51]. The aim of this thesis is to investigate several angles of mental health service networks and their effective ability to deliver integrated care whilst promoting a community approach of care.

An overview of the existing literature is first required. This will contribute to delineating with more precision the approach we chose and the specific research questions we decided to address.

2. Mental health service networks: approaches and definition

2.1. Networks as a particular type of organisational structure

In the sociology of organisations, the concept of the inter-organisational network appeared in the 1960s and was presented as a third way between two other types of organisation: hierarchies and markets [54]. Networks were presented as combining the advantages of both types of organisation: cooperative, ordered, subject to administrative regulation, and with a long-term orientation, like hierarchies; flexible, horizontal, and made up of differentiated services, like markets. Different theoretical frameworks have been developed about networks of organisations; most of these take a (structural) functionalist approach and are mainly based on the observation of private organisations [51;55-58]. These theories differ in how they define a network and the nature and structure of the relations networks exist within, for example whether links between organisations are egalitarian or hierarchical, weak or strong, formal or informal, etc. These theories also address the emergence, development, and transformation of networks. Indeed, in a competitive environment, cooperative partnerships are surely a topic of interest. Perri 6 et al. [51] identified nine theoretical traditions, rooted in different contexts,

that seek to explain the emergence of networks. These theories also suggest different explanations of the conditions in which networks of organisations are an effective strategy. It is far beyond the scope of this literature overview to explain in detail the rationale of all these theories, which reflect most debates in the economic and social sciences. However, Table 1 presents these nine theoretical frameworks and how they might apply to the context of networks of services in mental health-care, for example in relation to patient referral. It is noticeable that these theories are not mutually exclusive; each could offer a partial explanation of the usefulness of networks in this context.

If these theories differ in their explanations of the emergence and evolution of inter-organisational networks, they converge in considering networks as a specific form of inter-organisational collaboration, involving rather stable and recognisable patterns of ties. Theories on inter-organisational networks are also complementary in their contributions to explaining some effects of networks at the organisational level, such as the dissemination of means within networks, whether tangible (e.g. funds, goods, or workforce) or intangible (e.g. knowledge, culture, and practice).

Another common characteristic of these theories is that they have mostly focused on the situation and position of single organisations within their network ("ego" approach) and the consequent effects of networking on the organisation in question.

Table 1 Main theoretical frameworks for inter-organisational networks according to Perry 6 et al. [51], main explanatory mechanisms, and examples of the application of these theoretical frameworks to the context of referrals in mental health care

Theoretical framework	Representative author	Explanatory mechanism for networking	Example in the context of referrals in mental health care
Reduction of transaction costs	*Williamson*	It is less costly to delegate a task to a partner than to carry it out oneself.	Another clinician will spend less time and energy in solving the patient's problems than I will.
Organisational competence & learning	*Powell* *Bate & Robert*	A partner is more competent for one specific task and one will learn from him/her.	Another clinician is more competent to deal with the patient's case and I will learn from him/her.
Personalistic	*Granovetter* *Burt*	Inter-organisational partnerships are the consequence of individual relationships – these are shaped by mutual acquaintance and trust.	I personally know and trust other clinicians to deal with the patient's case.
New institutionalist	*Scott*	Partners are bound together by traditions of collaboration.	My organisation is used to referrals to and from some specific partners.
Niche perspectives	*Freeman*	Collaboration is the way to secure a dominant position in a specific field of activity.	I collaborate with another clinician and we are recognised as the main specialists for a specific disorder.
Problem contingency	*Galbraith*	Collaboration is determined by the complexity of the problem to be solved.	The patient's needs require the skills of a number of clinicians, who should collaborate.

Table 1 *(Continued)*

Theoretical framework	Representative author	Explanatory mechanism for networking	Example in the context of referrals in mental health care
Path dependency – Technological determinism	*Castells*	Collaboration is driven by a macroeconomic determinism that leads specific knowledge sets and technologies to complement each other.	The expertise of another clinician and mine are stronger when we collaborate on a patient's case.
Weberian rationality	*Weber* *Simon*	Collaboration is the most rational choice at the macro level.	Referral is the best solution from a care system point of view.
Socio-technical (actor-network)	*Bijker & Law* *Callon & Latour*	The network results of the interaction between individuals and objects.	In practice, patients circulate between clinicians and constitute their network.

However, inter-organisational relations examined in the context of private organisations, i.e. those with a commercial purpose, differ from the context of mental health services in many respects. Firstly, there is less interest in examining the conditions for the emergence of networks in the case of mental health service networks. Indeed, in the human sector, most networks are expressly mandated by public authorities and are not driven by individual reasons. Secondly, inter-organisational theories that were developed in the context of private organisations paid little attention to the aims of networks, assuming that they were similar to those of the organisations that were members of the network [29]. By contrast, the development of networks in health care is often motivated by collective aims and outcomes at the network level that differ from individual aims, e.g. continuity of care. Thirdly,

as outcomes in mental health-care delivery are meant to result from inter-agency collaboration, the focus on the global structure of networks, patterns of relations, and integration at the system level ("whole network") appears to be of much greater importance in health care delivery compared to the focus on the positioning of individual organisations within their environment ("ego network").

2.2. Networks as a coordination mechanism in mental health care

Mental health service networks have also been studied as a coordination mechanism aiming to deliver integrated health care. According to Morrissey [53], integration of care can be achieved through mechanisms at several levels of action: at the level of users, e.g. with case management; at the level of services, e.g. with comprehensive mental health services offering a variety of interventions, or at the level of the system, for example with local mental health authorities organising care delivery or managed care organisation. Hence, according to him, networks of services are seen as a tool for organising care integration involving different services at the system level; he specifically understands the network as a coordinated structure, involving a local mental health authority acting as a "system case manager" [28] brokering clinical or administrative and funding relationships.

However, Leutz distinguished integration of clinical care from managed care, which includes financial and administrative integration [59]. While analysing long-term care integration in both the USA and the UK, he suggested three types of system

integration between health and social care services. He considered these as *levels of integration*, as they would correspond to different users' characteristics (from mild and stable to severe and unstable) as well as to different integration policy operations: information exchange, case management, and care funding. The first level, *linkage*, is described as a direct connection between health and social services. The second level, *coordination*, corresponds to the situation described above: an agent in a central position organises contacts and exchanges. Finally, the third level is *full integration*, where health and social care services are integrated in a single organisation. Thus, there would be different patterns of relations and modes of governance within networks of services, for example based either on the linkage model, i.e. a high number of connections between services, or on the coordination model, i.e. with a broker agency centralising the connections and leading the network. This conceptual framework has, however, not been empirically assessed by Leutz.

2.3. Networks as an analytical tool for describing interconnected elements

To avoid normative considerations in the definition of a network, its components, and its internal processes of exchange, Brass et al. defined the network in its simplest and most general form as a set of ***nodes*** and a set of ***ties*** representing some relationship between the nodes [58]. By adopting this general definition, these scholars joined another scientific tradition, that of *graph theory* and *Social Network Analysis* (SNA) [60-63]. As early as the 1980s, Morrissey

pointed to the potential of SNA for assessing system integration in mental health care delivery [42] and SNA indicators were used within large-scale studies of system integration in mental health [14;28]. Later, Provan & Milward applied SNA metrics to the study of the structure of relations between mental health services [64].

SNA is a methodological approach developed in sociology to examine the structure of relations (ties) existing between actors (nodes). It is widely used in many fields of research, extending the core idea of "social network" to any complex set of relationships existing between elements in interaction within a system. Among its core concepts, SNA metrics makes it possible to measure the ***density*** of ties between nodes, the ***centrality*** of nodes within the network structure, and the extent of ***centralisation*** in the whole network structure. SNA also introduces other important concepts for the assessment of network structure, such as ***homophily***, or the tendency of nodes with similar characteristics to connect to each other (the opposite tendency being called ***heterophily***), and ***multiplexity***, which refers to interconnected network structures resulting from different relations considered simultaneously.

This formal and structural approach to networks makes it possible to apply the network form to different contexts and objects, regardless of preconceptions about the network as a specific social structure, as a process, or as the result of an actual interaction. It also provides indicators and measures for describing or even assessing networking events in a global perspective and capturing the emergent properties of a set of relationships, independently of

the attributes of each element. For example, SNA metrics make it possible to measure empirically the development of linkages between care services or the centrality of one specific node in the network, i.e. the levels of care integration suggested by Leutz [59]. Provan & Milward used SNA metrics to study the influence of a mental health service network's structure on its effectiveness.

3. Mental health service networks: assessing effectiveness in care delivery

3.1. System integration and continuity of care

Most studies that have addressed system integration in mental health care delivery were carried out in large-scale evaluation programmes in the USA. Major examples of this are the assessment of the "Robert Wood Johnson Foundation Program" for chronic mental illness [28;65], the "ACCESS" programme for homeless people with psychiatric disorders [9;14;66;67], the Fort Bragg Demonstration [15;68], and the "Housing First" programme [25]. The integration and coordination of service systems was assessed by examining patterns of inter-organisational exchanges (e.g. referrals, information exchanges, and funding flows), which were analysed with the help of Social Network Analysis indicators and then related to outcomes at the level of services and users [14;28;42].

Globally, these systemic studies showed several improvements at the organisational level: a reduction of redundancy in care supply, better project-centred integration, and extensive implementation of the programme in the experimental sites as compared with control sites [14;28;67]. They also showed an overall improvement in the continuity of care measured at the service level [69]. In some settings [9;65], improvements in outcomes at the user level were measured, although these did not persist in follow-up measurements or were not specific to experimental settings. Consequently, those studies failed to relate system integration to durable improvements in outcomes at the level of users [9;65-67]. Several explanations were offered to explain those results, including inadequate measurements, the complexity of the variables involved, and insufficient duration of the study [69]. These studies were also suffered from the complexity of outcome measurement at different levels of action, i.e. users, services, and system.

3.2. Processes of collaboration between health providers in mental health care delivery

It has been argued that the structure of relationships and system integration are not sufficient to measure changes in user outcomes, without taking into account the quality and content of collaboration between health providers [69;70]. A series of case studies in the fields of public mental health, clinical, and health services research have focused on key topics affecting partnership working conditions, the content and quality of relationships, the

consequences of partnership quality for clinical practice, and barriers to partnership working [33;34;36-39;44;48;71-75]. Most of these studies rely on qualitative material, such as interviews with health professionals, or on subjective measurements. Their results are hardly generalisable, as they are greatly dependent on contextual factors and local policy and delivery systems. They share, however, a series of findings. One study by D'amour et al. summarises most of the implications of collaboration between professionals in health care organisations [76].

D'amour et al. identify ten key dimensions of health care collaboration, classified in four fields: shared goals and vision of the collaborative model, internalisation of relationships, formalisation of exchanges, and governance of the collaboration setting. Firstly, these authors argue that partnership working requires a good level of understanding of the goals of the collaboration and a common vision of what to do together. Although it is widely acknowledged that collaboration facilitates the adaptation of the care supply to the diversity and complexity of individual patients' situations, the implementation of collaborative practices entails a transformation of individual clinicians' values and overturns traditional clinical frameworks. It also reduces the possibilities for individual — professional, organisational, corporatist, private — interests to predominate in practices that may be against the interest of the patient.

Secondly, collaboration must be sustained by a good level of internalisation, that is, mutual acquaintanceship and trust at the

personal level. This may appear as a consequence of the requirements of shared goals and the reduced importance of individual interests. Professionals who know each other are more likely to develop a sense of belonging to a group and to trust each other. D'amour et al. state that, without trust, health professionals hold on to responsibility for their patients as long as possible. Indeed, without trust in each other's abilities, professionals feel they risk placing their clients in vulnerable positions.

Thirdly, at the same time, collaboration requires formalisation, that is to say, clear procedures as to how to exchange information on patients and as to which information is needed. Formalisation also means clarifying each partner's responsibilities. However, studies have shown that clinicians may be unenthusiastic about formalisation and information exchange procedures. On the one hand, such procedures may be seen as an administrative burden, eating into the time available for attention to the patient. On the other hand, some clinicians are concerned that privacy rules may be broken if there is some information sharing.

Finally, an important field for partnership working is the governance of collaborative activity. According to D'amour et al., good governance requires: the existence of clear and explicit directions to encourage practical collaboration; leadership, or clear identification of partners with the legitimacy to guide collaborative activity; support for innovation, as collaboration is by itself an innovative activity; and connectivity, i.e. a high level of contacts between partners.

Most of the case studies mentioned above also suggest local steps to overcome professionals' reluctance and the barriers identified. These steps focus on shared goal definition, clear division of responsibilities, governance arrangements, acknowledged expertise and legitimacy, and collaborative capacity building. Although case studies of this kind are relevant at the local level, they fail to define some generic characteristics of mental health service networks. Moreover, even if they emphasise the importance of formalisation, goal sharing, and governance mechanisms, such studies do not provide answers as to which structure to adopt, how to govern networks of services, which goals they should pursue, or how networks of services may be effective, particularly in articulating the aim of care integration in a community-based environment.

3.3. The framework developed by Milward, Provan, et al.

The theoretical framework developed by Milward, Provan, and their colleagues is situated at the crossroads of organisational research and public mental health studies [45;46;64;77;78]. They considered the methods and results previously employed in studying system integration in mental health care delivery, and at the same time addressed some of the lines of research suggested by organisational theories, such as the relationship between network structure and network effectiveness, and types of network governance. Moreover, they adopted the formal approach to networks and extended the use of SNA metrics to the assessment of their structural patterns. Thus, this research provided several

methodological tools and core findings for the theoretical approach taken by this thesis, particularly to the relationship between network structure and effectiveness and network governance.

3.3.1. Network structure and network efficiency

Provan & Milward first developed a preliminary theory of networks in mental health [29;79], by comparing four community mental health networks in Arizona, New Mexico, Rhode Island, and Ohio. Those networks, which were developed in the USA after the 1960s deinstitutionalisation reform, aimed to supply integrated care within delimited areas. Provan & Milward employed three levels of analysis to assess network effectiveness (user, service, and whole network). Effectiveness was measured through a composite index of outcomes at the user level, including quality of life, satisfaction with care, the psycho-medical status of users, and their social functioning. Network structure was measured with SNA metrics on the density of ties, agency centrality, and network centralisation. These metrics were applied to different relations: referrals, exchange of information, joint programme collaboration, and funding relations. Qualitative information on contextual factors was also collected from mental health providers.

Their main results showed that network effectiveness was influenced by a series of structural factors: network integration (defined as an increase in the density of ties), external management of the network, system stability, and environmental resource munificence. Moreover they pointed out the importance

of *multiplexity* in network stability, i.e. the involvement of network partners in different relationships at the same time. However, no significant correlation was found between network integration and effectiveness. By contrast, effectiveness appeared to be correlated with a greater degree of centralisation. In this preliminary study, Provan & Milward could not explain this result. However, by later refining their analyses, they eventually showed that effectiveness, measured as client outcomes, was positively related to integration between small *clique*s (densely interconnected groups) of agencies when these cliques had overlapping links involving both reciprocal referrals and case coordination [80] (See Figure 1).

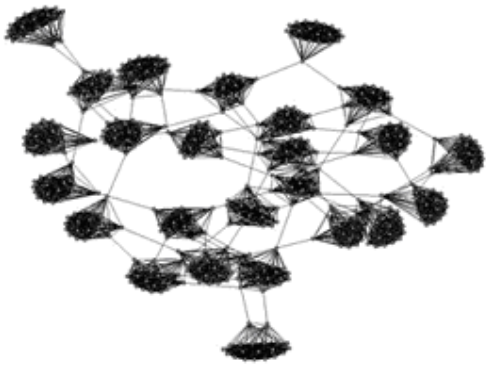

Figure 1 Graph visualisation of a *"clique"* network – From Siegel, D.A., 2009 [81]

Furthermore, Provan & Milward also observed that generally, the density of ties within mental health service networks tended to increase over time. Moreover, while centralisation facilitated coordination, differentiation between services (i.e. diversity in care supply) was correlated with a low level of centralisation. Hence they confirmed Morrissey's claim that density and centrality could

not be simultaneously maximised [28;46;64;77-79]. The two latter findings would seem to confirm that there could be a conflict between the objective of community-based care, which would require differentiation, and the objective of care integration, which would require coordination.

3.3.2. Network governance

Network governance has also been a specific issue of concern for Provan & Milward [82;83]. Contrary to the private sector, where many networks are "serendipitous" (or at least actor-directed, i.e. built upon the will of individual organisations joining together), networks in the public sector tend to be "goal-directed" (formally constructed in order to address a purpose), often through an external mandate. Modes of governance and legitimacy of power are, accordingly, two crucial issues in the public sector.

Provan & Milward suggested a typology of modes of governance, distinguishing three types:

- **1. Shared governance**: this mode of governance may be formally defined, through regular meetings of designated partners' representatives, or more informally, through the action of those more involved in operating the network. It is highly decentralised, based on the interaction of most or all network members, who have a relatively equal status in the process of governance. Shared-governance networks depend exclusively on the involvement and commitment of

most or all organisations within the network. All decisions are made collectively. Hence, power in the network is symmetrical, even if there are differences in the individual power of organisations, and relations can be considered as horizontal. Finally, there are no distinctions in responsibilities and the distribution of management tasks, nor is there a distinct administrative entity to manage network activities, and no single entity represents the network as a whole.

- **2. Lead governance:** this mode of governance is highly centralised and most governance activities are carried out by a single member, acting as a lead organisation. This lead organisation coordinates the network and is responsible for the administrative tasks. It is also generally placed in a broker position, mediating the relations with all the other members of the network. Power is asymmetrical and relations are vertical. The lead organisation facilitates the activities of member organisations and defines network goals. Finally, the lead organisation is the legitimated representative of the network and may receive resource contributions from network members and control access to external funding.

- **3. Network Administrative Organisation (NAO) governance:** The third model is also centralised. It is characterised by the establishment of an entity dedicated to the administration of the network. The NAO is not another member

organisation providing health services. It is generally established either through an external mandate or by the members themselves. In the latter case, although it represents the members of the network, the NAO builds its own legitimacy and can face network-level issues by reducing the complexity of shared governance. The NAO is usually the representative of the network and may control access to external resources.

According to Provan & Milward, these three forms of governance correspond to different needs and conditions, i.e. the levels of trust between members, the size of the network in terms of number of participants, the level of goal consensus, and the need for network-level competencies. The NAO model is presented by Provan & Milward as the most stable and as able to cope with the highest level of complexity [83]

4. Conclusions, research questions, and outline of the thesis

On the one hand, several studies have investigated inter-organisational networks as a type of social structure and examined whether they were effective for collective purposes. On the other hand, the specific quest for improved integration in mental health care delivery has also generated studies of system integration that have attempted to assess its effects on outcomes at the user and service levels. Although these two different traditions of research have produced many findings about networks of mental health

services and have shown their complexity, their conclusions are still quite fragmentary and many research questions remain open. In particular, the articulation of the two purposes of promoting a community-based care supply, which maintains users in their living environment, and of delivering integrated care, which produces continuity of care to address their complex needs, is still an issue.

After considering the different elements highlighted within the literature overview, we decided to experiment with a structural functionalist approach, on the assumption that the structure of relations between health providers within a network of care delivery determines, or at least influences, their processes of collective action, and therefore, the potential outcomes resulting from those interactions. Indeed, despite differences of opinion, there is agreement that the effectiveness of mental health inter-organisational networks has to be assessed by correlating indicators about the network structure with outcomes at the user, service, and system levels [53;84]. The studies presented in the following chapters will address the relation between characteristics of the network structure and their effect on those different levels. Furthermore, the three different approaches to inter-organisational networks, considered as particular social structures, processes of exchange and collaboration, or outcomes of interagency collaboration [52], are complementary and help to capture the complexity of networks as a whole. These three facets of networks also correspond to the classic steps in the evaluation of the quality of care according to Donabedian [85]: structures interact within processes and produce outcomes.

Cross-referencing the three levels of activity of networks — user, service, and whole network — and the three approaches to networks — taken as structures, as processes, or as outcomes — makes it possible to define nine fields of interest for the study of networks of mental health services, i.e. of the effects of structures, processes, and outcomes of networks on users, on services, and on the network itself. The different articles included in this thesis were written within different research projects and address some of these fields, as summarised in Table 2.

Table 2 Levels of action of mental health service networks, approaches to networks, and outline of the thesis

	Network as STRUCTURE	Network as PROCESS	Network as OUTCOME
USER level		**Chapter 4: Processes of integration of care within mental health service networks** *The case of Psychiatric Advance Directives (PADs)*	
SERVICE level	**Chapter 2: The structure of mental health service networks** *Using Social Network Analysis for assessing mental health and social services inter-organisational collaboration: findings in deprived areas in Brussels and London*		
INTER-ORGANISATIONAL *(Whole Network)* level			**Chapter 3: Policy expectations in relation to mental health service networks** *Mental health care delivery system reform in Belgium: The challenge of achieving deinstitutionalisation whilst addressing fragmentation of care at the same time*

In Chapter 2, we address **the structure of networks of services**, comparing networks in two socially deprived areas of Brussels and London. This study was part of the ***PROMO project,*** a European research project funded by the *DG-SANCO* of the European Commission. Promo addresses models of mental health care delivery in 14 country capitals for six deprived target groups: the long-term unemployed, sex workers, homeless people, irregular migrants and asylum seekers, refugees, and travellers. We used Social Network Analysis metrics to describe and assess inter-organisational collaboration and integration of care between mental health and social care services through routine team meetings and referrals.

In Chapter 3, we address **the inter-organisational level of networks** with a study of policy expectations in relation to care delivery within mental health service networks. Since 2010, Belgium has been implementing a reform of its mental health care delivery system. This aims to strengthen community care and improve the integration of care simultaneously and the mechanism suggested in order to achieve these two goals is the establishment of networks of mental health services, particularly within a balanced model that includes both hospitals and community services. We carried out a content analysis of the policy blueprint for the reform in order to identify its multiple goals and the tools suggested for achieving those goals, and in order to investigate how goals and tools were articulated. We propose an ex ante evaluation of its programme theory.

In Chapter 4, we address **the process of integration of care,** investigating a tool for advance care planning in psychiatry: the Psychiatric Advance Directive (PAD). PADs are documents that allow psychiatric patients to notify preferences for treatment in case of crisis. The results presented are part of a research project funded by the French-Speaking Community's Fund for Medical Research *(FRSM)*. The project investigated the feasibility of introducing PADs into the Belgian mental health care delivery system. The chapter includes two papers. In the first, we present the results of a realist systematic review which investigated the theoretical frameworks underlying the intervention. The results emphasised the importance of collaboration between users and health professionals within the therapeutic alliance and of coordination of care for the effective use of PADs. In the second, we present the results of a stakeholders' analysis that was carried out in Belgium, which examined the value criteria underlying choices for employing PADs.

Finally, **in Chapter 5,** the main findings of the thesis are discussed, with particular attention to the network form of care delivery in mental health and its potential for delivering integrated care in community-based settings.

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Chapter II
The Structure of Mental Health Service Networks

This article was part of the ***PROMO research project,*** a European research project funded by the *DG-SANCO* of the European Commission. The ***PROMO research*** was carried out between 2007 and 2010. It involved 14 European countries and was coordinated by the *Unit for Social and Community Psychiatry* of the *Queen Mary University of London* (Prof. S. Priebe). Within the 14 country capitals, mental health care delivery was studied for six deprived target groups: the long-term unemployed, sex workers, homeless people, irregular migrants and asylum seekers, refugees, and travellers. The study addressed several topics on the quantity and quality of the services provided to those socially marginalised groups. Other articles from that research project have been published elsewhere [1-5].

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More information on the PROMO research is also available at: http://www.promostudy.org

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Using Social Network Analysis for Assessing Mental Health and Social Services Inter-Organisational Collaboration: Findings in Deprived Areas in Brussels and London

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Abstract

Fragmentation in mental health and social care delivery should be addressed at the system level. A Social Network Analysis was carried out on relations between services in order to assess Leutz's levels of care integration: linkage, coordination, and full integration. Findings for deprived areas in Brussels and London show that linkage across clusters of services is weak in both networks. However, the integration of care relies on the level of linkage in London, while in Brussels it is more dependent on central services playing brokerage roles. The method offers a useful and complementary basis for evaluating the integration of care.

Keywords

Mental health • Social care • Organisational model • Social Network Analysis • Partnership practices

Introduction

As a result of the deinstitutionalisation of psychiatric service users, fragmentation in mental health care delivery systems has become a public mental health issue in many Western countries (Morrissey 1999; Glasby and Dickinson 2008). Fragmentation contributes to inefficiency and ineffectiveness in healthcare delivery, and to health inequalities (Fiscella et al. 2000). There is in particular a lack of continuity and coordination in health and social care delivery, due to many structural divisions, separate administrative and policy sectors, complex and diverse funding schemes, and distinct professional backgrounds. This particularly affects people with chronic, multiple, and complex needs, such as socially marginalised people with mental health disorders.

Compared to wealthier groups, marginalised people have a higher risk of mental disorders, have poor access to specialized care (Alegria et al. 2000), and are more likely to develop chronic or persistent episodes of mental disorders (Lorant et al. 2003; Cohen and Thompson 1992; Padgett et al. 2006; Strandh et al. 2011; López and Guarnaccia 2000; Rössler et al. 2010). These vulnerable patients require care of both a medical and social nature within a multidisciplinary integrated approach, covering a wide variety of physical, mental health, and social care interventions. However, in a fragmented delivery system, care is provided by separate agencies, with few effective partnership agreements. The overall quality of care therefore depends on the effectiveness of each agency but also on the ability of agencies to

collaborate in order to provide high quality integrated care. In the health and human services sector, outcomes such as integrated care delivery are understood to be emergent properties of interagency collaboration (Provan et al. 2007; Provan and Milward 1995).

Research has been investigating how to improve integration of care delivery for such vulnerable groups (Bickman 1996; Fleury and Mercier 2002; Freeman and Peck 2006; Goldman et al., 1992; McGrew et al. 2003; Morrissey et al. 1985; Rosenheck et al. 2002). Integration of care can be achieved with the help of tools and interventions at three different levels: the level of the user, e.g. case management or individualised care planning, the level of the services, e.g. comprehensive community mental health centres, and the level of the whole system, e.g. referrals or managed care (Morrissey 1999). Most studies have focused on processes and outcomes at the user and service levels. At these levels, there is a lack of consensus on how to define integration of care, how to measure it, and which data sources best capture the concepts measured. For example, a systematic literature review of methods in integrated healthcare delivery identified twenty-four different measurement methods in the 24 references included (Strandberg-Larsen and Krasnik 2009).

At the system level, a few studies have been carried out on mental healthcare delivery programmes, such as the Robert Wood Johnson Foundation (RWJF) programme on care integration (Morrissey et al. 1994; Lehman et al. 1994) and the ACCESS

programme for mentally ill homeless persons (Goldman et al. 1992; Rosenheck et al. 2002). Although a better integration of care reduced redundancy in service provision at the system level, these studies failed to detect a measurable effect of strategies for system integration at the level of the user. All these results indicate that the fragmentation issue in mental health and social care delivery systems should not be assessed at the user or service levels alone. A system perspective is required.

Unlike the RWJF and ACCESS programmes which restricted integration of care to intensive coordination of clinical, fiscal, and administrative aspects of care, Leutz (1999) described three levels of integration within health and social care delivery systems based on a review of policies in the USA and the United Kingdom. The three levels are: *linkage*, a direct connection between health and social services; *coordination*, where an agent in a central position organises contacts and exchanges; and *full integration*, where health and social care delivery is integrated in one single specialised organisation. He suggested that these three levels of integration correspond to different users' needs, such as severity of the user's disorders, stability, urgency, or self-management. These levels also allow different integration policy operations, such as information exchanges, case management, and care funding. Leutz did not however indicate how to empirically assess these patterns of relations between services.

Morrissey et al. (1985, 1994) pointed to the potential of Social Network Analysis (SNA) for assessing the global organisation of

systems of services in mental health care delivery. They investigated three types of relations between services — referrals, planning coordination, and resources flows — with the help of three SNA measures: density, centralisation, and fragmentation. Pescosolido also acknowledged the potential of SNA for exploring the social context and environment in health care (Pescosolido 2006). This approach was extended by Provan, Milward, and their colleagues. They also carried out several studies on networks of mental health services in the USA using similar SNA indicators and others, such as multiplexity, cliques, and embeddedness (Huang and Provan 2007; Provan et al. 2002; Milward and Provan 1998; Provan and Sebastian 1998; Provan 1997; Provan and Milward 1995; Provan and Kenis 2008; Milward et al. 2010). Whereas Morrissey investigated the integration of care from a public health perspective, relating services relationships with health and health policy outcomes, Provan and Milward focused on the relationships between health services from the field of administration and public management sciences. Their studies were more concerned with governance within networks and structural effectiveness. They argue that SNA at a whole network level of study is an effective method to compare networks in different policy domains and an effective means of assessing the level of integration within a network (Milward and Provan 1998; Provan and Milward 1995; Provan and Kenis 2008).

In this article, we apply the SNA framework developed by these scholars to Leutz's levels of care integration in the relationships between mental health and social care services at the systemic

level. Moreover, we extend Provan's argument by suggesting that these indicators are relevant to compare networks of services in different policy systems.

Methods

Data Collection

Data were collected as part of a cross-national research project looking at practices in promoting mental health in socially marginalised people in Europe (PROMO), which involved 14 European countries. The study addressed six marginalised target groups: the long-term unemployed, street sex workers, refugees/asylum seekers, irregular migrants, homeless people and travelling communities. In each country's capital, two areas with a population size of between 80,000 and 150,000 inhabitants and with high deprivation indices were selected. Within these areas, all mental health and all social care organisations for the six targeted groups were selected. Drug addiction services, emergency departments in general hospitals, and other primary care services were also included. Services were classified into five categories: group-specific mental health (A1), generic mental health (A2), group-specific social care (B1), generic social care (B2) and general health (C) services. Group-specific services were those that provided care mainly to one or more of the six target groups. According to Leutz's theoretical framework, group-specific mental

health services (A1) were considered fully integrated, as they provide both mental health care and group-specific social care.

Data on services were collected during questionnaire-assisted face-to-face interviews between September 2008 and June 2009. Full details on the PROMO research and data collection methods have been published elsewhere (Priebe et al. 2012). The questionnaire covered a wide range of topics including funding, staffing, accessibility, client inclusion and exclusion criteria, services provided, evaluation programmes, and coordination with other services.

This last heading included networking data on referrals (''Does your service send referrals to/receive referrals from other services?'') and routine meetings (''Does your service have routine meetings on a regular basis with other services?''). Key informants (managers of the services or members of staff with relevant knowledge) in each service stated whether their service had been involved with other services regarding referrals or regular routine meetings during the year prior to the interview, in relation to at least one of the six target groups of the study. Key informants were free to mention as many services as they wanted. Networking data were processed with the network analysis software Pajek (de Nooy et al. 2005).

Findings for two areas, namely the communes of Schaerbeek and St-Josse (taken together as one) in Brussels (Belgium) and the London Borough of Tower Hamlets, are presented here. These two

European capitals offer an interesting case for a comparative study, as the health system of the former allows users to circulate freely among health and social providers (Gerkens and Merkur 2010), while in the latter, access to specialised services is organised on a geographical basis with a referral system from primary care providers acting as gatekeepers (Boyle 2011). Moreover, both areas share a series of characteristics: each area is situated within the second ring of its inner capital city; each area is among the most densely inhabited areas of the city (approximately 16,000 inh/km2 in Schaerbeek-St-Josse, and 12,000 inh/km2 in Tower Hamlets), both include the highest ethnic minority populations in their respective capitals (mainly Turkish and Moroccans in Schaerbeek-St-Josse, and Bangladeshis in Tower Hamlets), and both areas are among the most socially deprived of their respective countries, in terms of employment, educational level, and level of income.

Data Analysis and Measures

SNA is used to investigate the relationships between various actors (*nodes*), to identify the structural patterns of relations (*ties*) they exist within, and to analyse the effects that the relationship structure has on them (Scott 2000). It combines graphical representation of nodes and ties with a calculated assessment of their structural properties. Within the frame of this study, the services selected were considered as nodes, and ties were established between them when they declared having had regular routine meetings or referrals during the year prior to the interview.

Linkage Density and Whole Network Characteristics

The first level of integration, linkage between services, can be measured with the help of degree and density measures. The *(all)-degree* of a node is the number of ties it receives from (*in-degree*) and sends out to (*out-degree*) other nodes. Because each tie connects two nodes, the sum of the all-degrees in a directed network must equal twice the total number of ties (Scott 2000). Nodes can be characterised with attributes. Groups of nodes with shared attributes are called *clusters*. In our study, the type of service (A1, A2, B1, B2, and C) is an attribute of the nodes. The degree distribution amongst clusters and the average degree of the whole network are indicators of the density of ties in the network. Average degrees can also be calculated and compared across sub-networks, e.g. the intra-cluster and the inter-cluster linkage densities, or across different networks in a cross-sectional comparison. Within the frame of our study, these measures are indicators of the development of the linkage through referrals and routine meetings between mental health services, between social care services, or across these two groups of services. To ensure continuity of care for socially deprived users with mental disorders, we would expect a high density of connections across the mental health and the social care clusters of services.

Sub-networks with higher levels of linkage density can be identified. An example of this is a *clique*, which is a maximally complete sub-network. In other words, a clique is a group of at least three nodes (*triad*) where every node is directly connected to

all the others. As the number of possible ties grows exponentially with each node added, big cliques are rare in real world networks. However, the denser parts of a network are usually formed of overlapping connected triads (cliques of three nodes), which are called *overlapping cliques* (de Nooy et al. 2005). It is possible to count the number of tied triads in overlapping cliques, and to separate triads connecting nodes with similar attributes from triads connecting nodes with dissimilar attributes. The tendency of nodes to connect with similar nodes is known as *homophily*, and the inverse tendency is known as *heterophily*. In the analysis of the relationships between mental health and social care services, the number of homophilic/heterophilic tied triads indicates whether agencies offering similar services tend to link together or to link with complementary agencies. It completes the measures of the intra- and the inter-cluster linkage density on the capacity of the network of services to offer continuity of care.

Coordination, Centrality and Brokerage Roles

The second level of integration is coordination of services, which can be measured with the help of centrality measures. Coordination is possible when a node is structurally placed as an intermediary between two other nodes. This can be measured with the *betweenness centrality* (Freeman 1979). Considering that the distance between two nodes is the number of ties which is necessary to connect them, the betweenness centrality of a node n is the proportion of the shortest distances between pairs of nodes i and j ($i,j \neq n$) that pass through the node n in question to the total

of the shortest distances between pairs of nodes. Betweenness is a powerful indicator of the level of control and communication of a node in the network. It measures the extent to which a specific node may take on brokerage roles between clusters of nodes, e.g. in referrals. Coordinating organisations, in theory or in practice, are expected to have a high betweenness centrality. The distribution of betweenness centralities of nodes in the network makes it possible to calculate an overall *betweenness centralisation* indicator for the whole network. The betweenness centralisation ranges from0 to 1: a betweenness centralisation of 0 means that all the nodes have an equal betweenness centrality, while 1means that one node is necessary to connect all the pairs of other nodes in the network. Within the frame of our study, these measures are indicators of the development of a coordination model of integration of care between mental health and social care services. It could be that, despite a low density of linkage across these two groups of services, continuity of care for socially deprived users with mental disorders is ensured through such coordinating agencies.

These measures may be used in combination with the detection of brokerage roles according to the standard typology of Gould and Fernández (1989). In a triad where one node has an intermediary position between the other two, five different roles may be distinguished depending on the group to which the three nodes belong, e.g. mental health or social care services. The broker is called a *coordinator* if the three nodes belong to the same group, a *representative* when the broker belongs to the sender group, a *gatekeeper* when it belongs to the receiver group, an *itinerant*

broker when it belongs to a group that is neither the sender nor the receiver group, and finally a *liaison* when all three nodes belong to different groups. SNA allows us to count the number of times each node takes on these specific structural positions and thus to determine the main type of brokerage role taken on by the nodes with the highest betweenness centralities.

Fully Integrated Services

Finally, we pay a specific attention to the positioning of fully integrated services into the networks. According to Leutz's typology, fully integrated services respond to more significant needs, either on the part of users because their disorders are more severe and they have fewer self-direction capabilities, either on the part of the system in terms of control and management of care. We measure how fully integrated services are involved into the linkage of the network and the centrality of their positions. Fully integrated services might be involved in networks with low levels of linkage, indicating that they deliver comprehensive care for all users. Alternatively, they might occupy the most central positions, indicating that they are more likely to coordinate care for users with more severe and complex needs.

Results: Applying the Method to Brussels and London

Whole Network Characteristics *(Table 1)*

The two areas selected were similar with respect to the numbers of services selected: 43 in the Brussels area, 38 in the London area. There were 16 mental health services in each area, and 14 and 12 group-specific social services in Brussels and London respectively. There were only 3 and 5 fully integrated services in each network. Overall, the 43 services in Brussels reported having 172 ties, while the 38 services in London reported having 188 ties. In both cases approximately one-third of these ties represented routine meetings (63 and 68 respectively).

Table 1 Whole network characteristics for the mental health (MH) and social care (SC) services networks in Schaerbeek-St-Josse (Brussels) and Tower Hamlets (London)

	Schaerbeek-St-Josse Brussels	Tower Hamlets London
Number of selected services	43	38
By type of service		
(A1) Group-specific MH (fully integrated)	3	5
(A2) Generic MH	13	11
(B1) Group-specific SC	14	12
(B2) Generic SC	2	10
(C) General Health	11	-
Number of ties	172	188
By relation		
Routine meetings	63	68
Referrals in	47	56
Referrals out	62	64

Level of Linkage *(Table 2)*

However, the network in London appeared to be slightly denser than the network in Brussels. In Brussels each service averaged 8 ties (average all-degree) and the highest number was 30 (i.e. one service is involved in 30 ties). In London each service averaged almost 10 ties and the highest number was 43.

Important differences were found when the types of services were considered: fully integrated (group-specific mental health services, A1) were in much more direct connection with other services in London than in Brussels, while generic social care services (B2) were in much more direct connection with other services in Brussels than in London. Indeed, on the one hand, fully integrated services (A1) in London had an average (all-degree) of 11.2 ties with other services, compared to an average all-degree of only 1.3 in Brussels. On the other hand, generic social care services (B2) had an average of 20.0 ties with other services in Brussels and only 4.2 in London. Moreover, the highest all-degree of 30 in Brussels was achieved by a generic social care service. This confirms the importance of the involvement of generic social care services within the linkage between services in Brussels. In London, the highest all-degree of 43 was achieved by a generic mental health service (A2).

Table 2 SNA measures of linkage for the mental health (MH) and social care (SC) services networks in Schaerbeek-St-Josse (Brussels) and Tower Hamlets (London)

	Schaerbeek-St-Josse Brussels	Tower Hamlets London
Linkage density		
Average ties per service (average all-degree)	8.00	9.89
Highest number of ties (service type)	30 *(B2)*	43 *(A2)*
By type of service		
(A1) Group-specific MH	1.33	11.20
(A2) Generic MH	9.00	13.64
(B1) Group-specific SC	6.36	10.67
(B2) Generic SC	20.00	4.20
(C) General Health	8.55	–
Intra- and inter-cluster linkage density		
Number of ties inside MH cluster	39	76
Number of ties inside SC cluster	44	58
Number of ties between MH and SC clusters	15	54
Homophily and heterophily		
Number of tied triads in overlapping cliques	17	12
Number of MH services tied triads in overlapping cliques	9	1
Number of SC services tied triads in overlapping cliques	1	4
Number of mixed MH and SC services tied triads in overlapping cliques	2	7

If we look at the clusters of mental health services and social care services separately, the number of intra-cluster ties was higher than the number of inter-cluster ties in both areas, although the level of linkage between mental health and social care services

appeared to be more developed in the London network (54 out of the 188 current ties, or 28.7 %) than in the Brussels network (15 out of the 172 ties, or 8.7 %). These measures indicate that both mental health and social care services tend to develop their linkage with similar services, although the London network appears to be more effective in linking complementary services. This observation is strengthened by the positioning of the fully integrated services in London.

This tendency is confirmed when we compare the clusters of mental health services and of social care services within each network. The mental health services cluster was the most densely connected cluster in London, whereas in Brussels it was the social care cluster. However, the most embedded mental health services in the Brussels network tended to link with other mental health services (homophily), while the most embedded services in the network in London tended to link with other types of services (heterophily). Indeed, when we considered overlapping cliques, it appeared that 9 out of 17 overlapping triads in the Brussels network involved mental health services only, whereas there were only 12 overlapping triads in the London network, 7 of which involving different types of services.

Level of Coordination *(Table 3)*

The Figs. 1 and 2 show graphical representations of the two networks. Ties are represented in gray scale according to the number of relations that were declared between pairs of services

(from 0 up to 6, when both services declared sending referrals to, receiving referrals from, and having routine meetings with each other). Nodes are represented according to their type (see figure legend). The size of nodes is proportional to their betweenness centrality. In Fig. 1, representing the Brussels network, mental health services are situated in the upper left corner and group-specific social care services in the lower right corner. The aforementioned generic social service, in the centre of the graph, as well as one general health service and one generic mental health service, have the highest betweenness centralities. They are more likely to be situated as intermediaries in the connexion between mental health and group-specific social care services. In Fig. 2, representing the London network, mental health services appear on the left side of the graph, and group-specific social care services on the right side. Four services have higher betweenness centrality scores, although globally lower than in the Brussels network: the aforementioned generic mental health service (A2) on the left side of the graph, one fully integrated service (group-specific mental health, A1) and three group-specific social care services (B1) on the right side of the graph. However, they appear to be situated as intermediaries within their own cluster of services, rather than between clusters.

Table 3 SNA measures of coordination for the mental health (MH) and social care (SC) services networks in Schaerbeek-St-Josse (Brussels) and Tower Hamlets (London)

	Schaerbeek-St-Josse Brussels	Tower Hamlets London
Centralisation and centrality		
Betweenness centralisation	0.19	0.12
Highest betweenness centrality	0.21 (B2)	0.14 (A2)
Brokerage roles (main) by type of service		
(A1) Group-specific MH	2 (representative)	43 (liaison)
(A2) Generic MH	142 (representative)	155 (gatekeeper)
(B1) Group-specific SC	59 (representative)	80 (gatekeeper)
(B2) Generic SC	74 (liaison)	5 (representative)
(C) General Health	60 (gatekeeper)	–

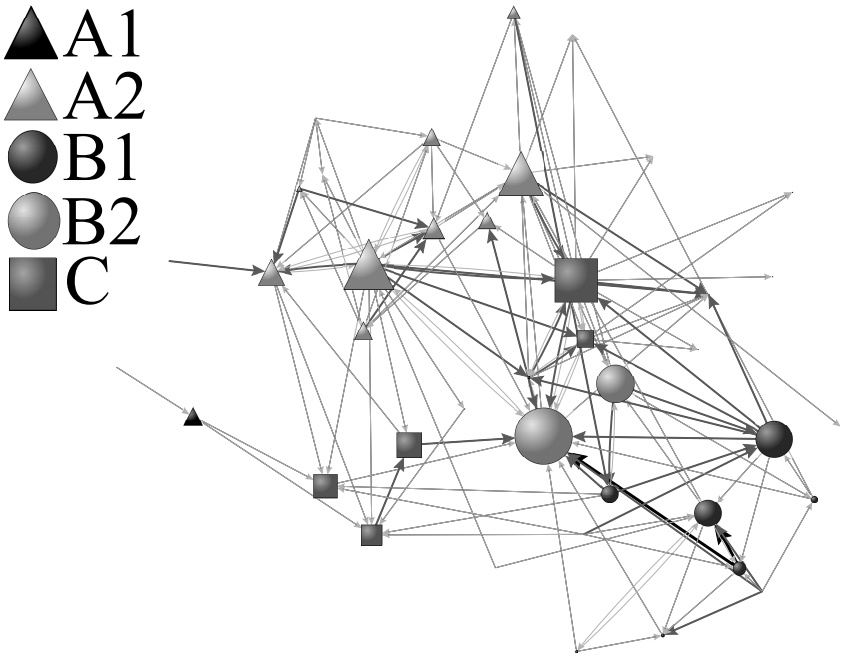

Fig. 1 Brussels, Area of Schaerbeek-St-Josse—Summed ties: routine meetings + referrals, betweenness centrality. The size of nodes is proportional to their betweenness centrality indices. Ties are represented in gray scale according to their weight (min = 0, max = 6). *A1* group-specific mental health services, *A2* generic mental health services, *B1* group-specific social care services, *B2* generic social care services, *C* general health services

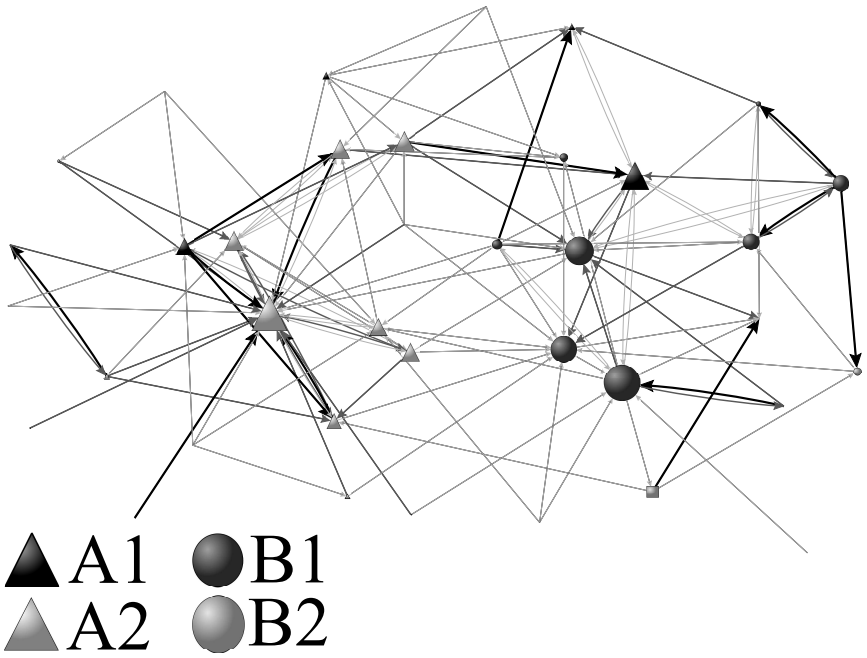

Fig. 2 London, Area of Tower Hamlets—Summed ties: routine meetings + referrals, betweenness centrality. The size of nodes is proportional to their betweenness centrality indices. Ties are represented in gray scale according to their weight (min = 0, max = 6). *A1* group-specific mental health services, *A2* generic mental health services, *B1* group-specific social care services, *B2* generic social care services, *C* general health services

The network in Brussels was more centralised than the network in London: the overall betweenness centralisation of the network in Brussels was 0.19; for the network in London it was 0.12. The highest betweenness centrality achieved in Brussels was 0.21, which was that of the aforementioned generic social service (B2) with the highest all-degree. This result means that 21 % of the shortest distances between pairs of nodes in the network pass through that generic social service. In London, the highest betweenness centrality, 0.14, was also achieved by the service

with the highest all-degree, which was a generic mental health service (A2). Thus, these services occupied the most central positions in their respective networks.

In both networks mental health services took on brokerage roles more often than other services. Group-specific mental health services (fully integrated, A1) mostly had *liaison* positions between the mental health and social care service clusters in London. In Brussels this *liaison* role was played by the generic social care (B2) service with the highest betweenness centrality. These results indicate that fully integrated services in London and generic social care services in Brussels were better placed to play a coordinating role between the mental health and social care clusters of services.

In other respects, both mental health and social care services tended to play a *gatekeeper* role in the London network, receiving ties from outside their cluster and sending ties within their cluster of services. When placed in a broker position, these services were more likely to be referred to by services of a different type and to refer to services of their own type. By contrast, mental health and social care services more often took *representative* positions in the Brussels network, receiving ties from inside their cluster and sending ties out to other clusters. These services were more likely to be referred to by similar services and to refer to other types of services.

This last result, considered along with the levels of inter-cluster linkage presented above, shows that the connection between mental health and social care services was mainly made by those broker services in Brussels, while the connection between mental health and social care services was much less dependent on brokerage services in London: the level of linkage between the clusters of mental health and social care services there was higher and brokerage services, acting as gatekeepers, were not contributing to connecting with other types of services. In Brussels the level of linkage between the clusters of mental health and social care services was lower, although brokerage services, tending to act as representatives, were more involved in connecting services of different types.

Conclusions and discussion

Despite major differences in mental health and social care policies between Brussels and London (Boyle 2011; Gerkens and Merkur 2010), the networks of mental health and social care services investigated comprised similar elements in terms of the number of mental health and social care services, the number of ties claimed, and the distribution of ties among relations. Moreover, in both networks the level of linkage within clusters of services was higher than the level of linkage between clusters, and there were few fully integrated services. This suggests that the fragmentation between mental health and social care services remains an important issue in both countries.

The structural properties of each network, however, show interesting differences. The integration of care in Tower Hamlets (London) is mainly achieved at the level of linkage between services. In Schaerbeek-St-Josse (Brussels), the integration of care is more dependent on some services in central positions that are capable of playing a coordinating role. In London the network of services is denser than in Brussels and the linkage between the mental health and social care clusters is stronger. Moreover, services in London are more likely to connect with other types of services (heterophily). Fully integrated services (group-specific mental health) play a liaison role between mental health and social care services. By contrast, in Brussels, the network is more centralised than the network in London. Mental health and social care services in Brussels are more likely to connect with similar services (homophily). At the same time, generic social care services play an important liaison role in connecting mental health and group-specific social care services. Moreover, mental health and social care services, when situated in an intermediary position, tend to take on a representative role. The connection between clusters of services mainly relies on these brokerage services. In London these brokerage roles are shared by a variety of services, including fully integrated (group-specific mental health) services and are not so decisive for connecting mental health and social care services.

This could suggest that without a formal organisation of the referrals between services, the agencies offering a complementary service are not well identified, and hence, few services concentrate

the circulation of users. However, at present, these results remain mainly descriptive. Indeed, SNA measures structural elements but do not give any information on contextual factors that could explain these structural patterns of connection, or on the quality of the integrated care offered to users with multiple needs. SNA indicators must be linked in later research to policy and public health outcomes for the area under investigation, e.g. the number of involuntary hospital admissions, rates of suicide attempts, or overall morbidity. They could also help us to achieve a better understanding of the relations between system integration and clinical outcomes such as quality of life and social rehabilitation, at the user level. Indeed, Leutz suggested that the three levels of integration of care correspond to the level of severity of the client's disorders and that each level calls for different policy integration measures, such as information exchanges, case management, and financial operations (Leutz 1999). However, we do not know whether the users referred have different clinical profiles in the two areas, or whether the policy needs in terms of exchange of information or case management are different in the two cities.

Although further research is needed to explain the phenomena depicted, these results are consistent with the results of previous studies. In the 1980s Morrissey et al. (1985) pointed out that institutional mental health and community-based services formed separate clusters, with very few inter-cluster links. Later, within the RWJF programme evaluation (Morrissey et al. 1994), one key conclusion was that the density of inter-organisational links and the centralisation of the network structure cannot be maximised at

the same time. In our study, we refined this conclusion by putting it in the framework of Leutz's levels of care integration.

Moreover, these results indicate that SNA indicators can contribute to the assessment of the integration of care at the system level. For example, they indicate that some services in Brussels are well placed, within the network of services, to play a coordinating role. However, these services are currently not mandated to do so. Another example is that of concerns homophilic/heterophilic relations: in order to offer integrated care, services are supposed to develop partnerships with dissimilar services. SNA structural indicators could allow us to evaluate organisational relationships within their policy context and to help policy-makers set priorities for the development of care integration without normative judgements for or against one specific model. They also make it possible to identify gaps in the overall structure of connections, regardless of the level of care integration (linkage, coordination or full integration).

Hence the proposed methodology provides a tool for assessing whether the level of integration or fragmentation is higher in one specific area than elsewhere and for specifying how care integration could be improved at the area level. Conventional methods for assessing health services, such as the European Services Mapping Schedule (Johnson et al. 2000), can reflect with great detail the quantity of services provided, but fail to capture how services are linked. SNA appears to provide a complementary and much-needed perspective.

Within a cross-national framework, SNA at a *whole network* level of analysis offers comparable structural indicators, identifying similarities in network patterns independent of differences in local or national contexts and policies. Some authors suggest that different systems are basically facing the same problems in front-line service delivery (Glasby and Dickinson 2008). These problems could be linked to structural gaps in the achievement of integrated levels of care, at whatever level (i.e. linkage, coordination, or full integration).

Assessing care integration using a cross-national SNA framework also has its limitations. Firstly, there is one traditional limitation of SNA studies that concerns network boundaries. Actors selected for a network analysis are always embedded in multiple types of relationships and networks may always be considered as embedded in larger networks. The criteria for inclusion in the PROMO study, i.e. geographical areas, types of services, and investigated relationships based on referrals and routine meetings, are only part of the ‘‘real’’ set of relationships operating in these services. For example, selected services may have referral or routine meeting relationships with actors situated outside of the investigated areas being investigated and these could not be systematically included.

Secondly, by the same logic, definitions of types of services or of networking relationships have been set in an international context. Due to the huge diversity in health and social care policies across Europe, some disparities may occur in, for example, local

understanding of the criteria for inclusion of types of services or types of relationships, as well as for available data and sources of information (were the data recorded or are they based on informants' estimates?). This may explain why reciprocity in some relationships, e.g. routine meetings, was not as high as expected. Indeed, only 8 out of 63 routine meetings ties were reciprocal in Brussels, and 19 out of 68 ties were reciprocal in London. Further studies will have to rely on more objective data.

While taking these limitations into account, we suggest that SNA can provide a useful framework and key policy indicators for evaluating possible gaps across different types of inter-services integration. This framework will be applied to the complete set of mental health and social care service networks investigated as part of the PROMO study.

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Conflicts of interest The authors state that there is no conflict of interest and certify that they take full responsibility for the conduct of the study and for the analysis and interpretation of the data.

Annex

Here are two previously unpublished graphs of the networks studied.

Fig 3 represents the network in Brussels. Intra-cluster (homophilic) ties are represented in yellow, and inter-cluster (heterophilic) ties are represented in red. Generic social care (B2) and general health (C) services and incident ties were removed. It shows clearly that there were very few direct links between mental health and group-specific social care services, and that group-specific mental health services (fully integrated) remained at the periphery of the network.

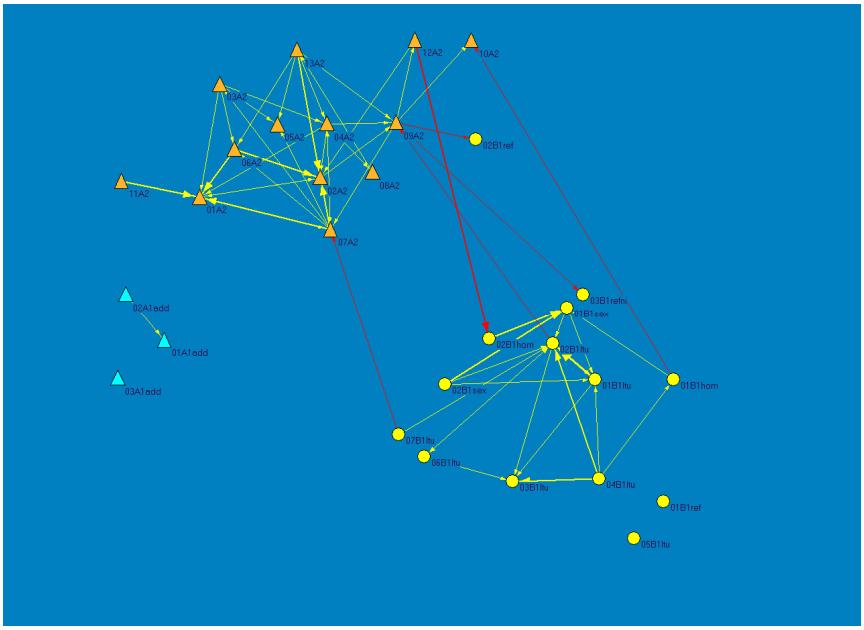

Fig. 3 Brussels, Area of Schaerbeek-St-Josse—Summed ties: routine meetings + referrals, extraction of the *A1* (group-specific mental health services), *A2* (generic mental health services), and *B1* (group-specific social care services) clusters, and incident ties.

Fig. 4 represents the network in London. Intra-cluster (homophilic) ties are represented in white, and inter-cluster (heterophilic) ties are represented in dark grey. Generic social care (B2) and general health (C) services and incident ties were removed as well. In spite of this, there were still many links remaining between mental health and group-specific social care services, and group-specific mental health services (fully integrated) were more centrally involved in that linkage. However, as Fig. 2 showed, these inter-cluster ties tended to be weaker than the intra-cluster ties.

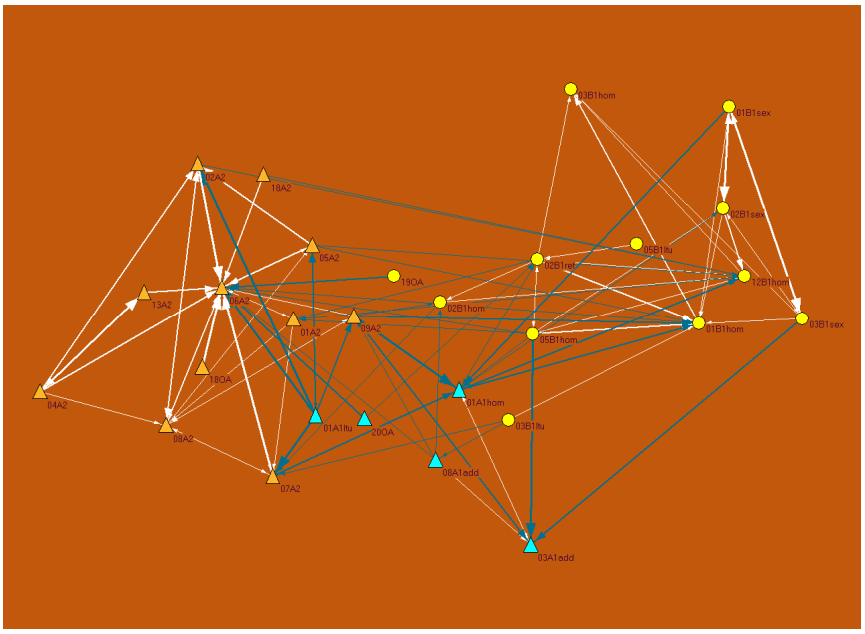

Fig. 4 London, Area of Tower Hamlets—Summed ties: routine meetings + referrals, extraction of the *A1* (group-specific mental health services), *A2* (generic mental health services), and *B1* (group-specific social care services) clusters, and incident ties.

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Chapter III

Policy Expectations in relation to Mental Health Service Networks

This article presents an ex-ante evaluation of the current reform of mental healthcare delivery in Belgium as it is presented in the policy blueprint for this reform published by the Belgian health authorities in 2010. The process of reform started in 2011.

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Mental healthcare delivery system reform in Belgium: The challenge of achieving deinstitutionalisation whilst addressing fragmentation of care at the same time

Pablo Nicaise • Vincent Dubois • Vincent Lorant

Abstract

Most mental healthcare delivery systems in welfare states currently face two major issues: deinstitutionalisation and fragmentation of care. Belgium is in the process of reforming its mental healthcare delivery system with the aim of simultaneously strengthening community care and improving integration of care. The new policy model attempts to strike a balance between hospitals and community services, and is based on networks of services. We carried out a content analysis of the policy blueprint for the reform and performed an ex-ante evaluation of its programme theory, based on the current knowledge of mental health service networks. When we examined the policy's multiple aims, intermediate goals, suggested tools, and their articulation, we found that it was unclear how the new policy could achieve its goals. Indeed, deinstitutionalisation and integration of care require different network structures, and different modes of governance.

Furthermore, most of the mechanisms contained within the new policy were not sufficiently detailed. Consequently, three major threats to the effectiveness of the reform were identified. These were: issues concerning the relationship between network structure and purpose, the continued influence of hospitals despite the goal of deinstitutionalisation, and the heterogeneity in the actual implementation of the new policy.

Keywords

Health Care Reform • Mental Health Services • Organisational Model • Deinstitutionalisation • Delivery of Health Care, Integrated • Community Health Networks

General background

Since the Mental Health Declaration for Europe of the World Health Organisation (WHO, 2005) [1], most European countries have been reforming their mental healthcare delivery systems [2,3]. These reforms may have had two main aims [4,5]. The first is to completely deinstitutionalise mental healthcare delivery by providing community-based mental health services. Deinstitutionalisation was completed long ago in some countries (such as the United Kingdom and Italy) whilst in others (especially in Eastern Europe or in Japan) [4,6], the process is still ongoing. The second of these aims is to address the issue of fragmentation in health and social care delivery systems [7,8]. In most countries, care is delivered by a wide range of services without partnership working agreements aiming at continuity of care [9,10]. The issue of fragmentation is particularly relevant for severe and chronic mentally ill users with multiple, long-term, and complex needs [11-14].

These two aims appear to be in conflict with each other, as fragmentation is higher within community-based systems [15,16]. Indeed, old asylums, which used to be integrated services, were replaced by multiple specialised teams [5,17]. This caused problems of coordination among these services and a lack of care continuity for users. Various problems were subsequently attributed to this lack of integration, such as increased incidences of coercion and compulsory treatment, homelessness,

unemployment, and increased pressure on carers and families [15-18].

These two aims are also difficult to assess [18], as health systems are multi-dimensional, combining numerous goals that need to be simultaneously assessed at different levels of action, including the user level, service level, and system level [19,20]. While deinstitutionalisation can be captured by examining the quantity and quality of the services provided [2,19], there is a lack of consensus on how to define and measure integration of care, particularly at the system level [14-23]. Although several authors have suggested matrix models for such assessment [20-23], the correlation between mechanisms at the system level and outcomes at the user and service levels remain particularly difficult to assess [4,22-25].

Belgium is currently implementing a new phase of reform of its mental healthcare delivery system that aims to simultaneously address deinstitutionalisation and issues of fragmentation. This is therefore an interesting case study for looking at the ways in which these two aims can be addressed at the same time. In this context, we carried out a content analysis of the policy blueprint for the reform in order to identify its programme theory [24]. This included its long-term and intermediate goals, the tools being suggested to reach those goals, and the way in which the programme as a whole has been constructed to address the broader aims of deinstitutionalisation and integration of care. This analysis of the

programme theory of the reform made it possible to then identify ex-ante the potential threats to the effectiveness of the reform. It is also an essential step to determine the set of indicators needed to assess the effectiveness of the reform.

Materials and methods

Context

The healthcare system in Belgium may be described as having three fundamental characteristics. The first is the principle of therapeutic freedom, which in practise means the freedom of users to choose their health providers, regardless of territorial or referral criteria. Compulsory health insurance covers most of the fee-for-service costs within this system. Secondly, the healthcare system mirrors the high level of fragmentation of the whole society. It is well known that Belgium is deeply divided into different linguistic communities. The coexistence of these communities has required many policy arrangements and reforms, which has resulted in a complex distribution of policy competences between the federal state and multiple federated entities. This is particularly true for health and social care policies, which simultaneously fall under several levels of authority. For example, in the Brussels-Capital Region, up to six different governments are simultaneously responsible for health and social affairs. Thirdly, in order to regulate this complex system, the traditional decision-making process for public policies is based on corporatism, which requires

lengthy negotiation processes between different stakeholder groups [25]. Specifically, for the management of healthcare delivery systems management an inter-ministerial conference that brings together representatives of all the authorities involved has been established in order to facilitate cooperation between the federal and the seven federated authorities. As a result of this situation, the delivery of community care is largely organised and financed at the level of the federated entities, while in-patient services, including hospitals, fall mainly under the responsibility of the federal authority.

The Belgian mental healthcare delivery system

During previous phases of reform, some community settings were introduced in the Belgian mental healthcare delivery system. Community Mental Health Services were established in 1975, followed by residential rehabilitation units in the 1980s. In the 1990s, psychiatric hospitals wards and psychiatric units in general hospitals were partially replaced by sheltered housing and psychiatric nursing homes. These intermediate structures were aimed at facilitating the social rehabilitation of psychiatric users [26]. However, despite these structures, the process of deinstitutionalisation was not complete. Indeed, at the same time, psychiatric hospitals for long-term care remained, as did wards for chronic care in the acute psychiatric units of general hospitals. There were therefore still 152 psychiatric beds for 100,000 inhabitants in 2008, the second highest number in Europe, according to the WHO [3].

In addition, the Belgian mental healthcare system is highly fragmented and uncoordinated, largely due to the complexity of the political, health, and welfare systems as a whole [26]. To address this issue, several mechanisms were put in place during previous reforms. The first of these were *Dialogue Platforms*, set up in 1990. These bring together representatives of all in- and out-patient mental health services at the local level with the aim of supporting the development of a shared vision/shared goals with respect to the needs of certain target groups of users and facilitating collaboration between the different services. The second initiative established to address the issue of fragmentation in the mental healthcare system was the concept of *Care Networks*, introduced by the National Council of Hospitals in 1997 [27]. This initiative considered two approaches: the *'network of services'*, which is an inter-agency partnership, and the *'care circuit'*, which sets out a care pathway defined for a particular target group of patients involving several services. These two approaches to networks underlie the 2001 and 2007 federal policies on mental healthcare delivery [28]. Later care circuits and networks of services were approved in a Joint Declaration from the federal and federated Ministries of Health in 2002 [29], and were eventually introduced in the 'Hospitals Act' of 2008 [30]. This act allowed psychiatric hospitals to reallocate funds for long-term beds to networks with community-based services.

This funding mechanism is at the core of the current phase of reform named 'Title 107', in reference to the title where this mechanism is suggested. The 'Title 107' reform proposal was

described in a blueprint document entitled: “Guide towards a Better Mental Healthcare by Implementing Care Circuits and Networks” [31]. Voluntarily participating hospitals were requested to submit their own project including their partnership and implementation strategies. Each local project was free to include any type of community partner and to design its own governance model. The submitted projects were reviewed by the health authorities and either accepted, returned for revision, or rejected. The first series of twelve projects was accepted and ready to start from January 2012. More local projects are to be included in the future.

Data analysis

The programme theory of the 'Title 107' reform was assessed through a content analysis of its policy formulation as described in the blueprint for the reform. As part of this content analysis, we identified the long-term aims and intermediate objectives of the reform. We also identified the tools, processes, and mechanisms being suggested in the blueprint with respect to achieving its aims and objectives. Finally, we identified and analysed the arguments used to support the reform, and the way in which goals and tools were articulated into a global programme theory [24].

More specifically, we compared the implicit configuration of the mental health service networks as suggested in the reform with the available evidence from the literature. Networks of services have often been identified as an effective way of overcoming the issue

of care fragmentation in community-based care systems [14,15,20,32-44]. The literature on this topic is heterogeneous and little evidence is available on the relationship between network structure and effectiveness [45]. However, these issues have been addressed by Provan, Milward, and their colleagues [20,44,46-48] as part of the work they have done observing networks of mental healthcare services in the USA since the 1990s [16,49]. In particular, their work has focused on the ways in which network effectiveness is influenced by a range of structural factors. They showed that effectiveness at the user level was not correlated with a higher density of connections between services, but instead was positively related to small groups of densely interconnected services, when these groups were connected to each other via a central agency [39,50]. They also observed that centralisation facilitated coordination, while differentiation between services (i.e. diversity in care supply) was correlated with a low level of centralisation. Furthermore, they observed that the density of connections between services tended to increase over time. They concluded that density of ties and centralisation could not be maximised simultaneously [44,46,47,49,51]. This last finding was also stated by Morrissey as part of the Robert Wood Foundation Programme evaluation [15].

We assessed the extent to which the network model suggested by the reform is consistent with these findings, thereby identifying possible threats to the effectiveness of the reform.

Results

The core elements of the programme theory are presented here under five sections: (i) the case for reform, (ii) the new model, (iii) goals and objectives, (iv) tools, and (v) issues regarding implementation and funding.

The case for reform

Arguments in support of policy reform were based on the idea that the supply of mental healthcare needs to be continuously adapted to the demand of care. The simultaneous quest for further deinstitutionalisation and less fragmentation is therefore justified by the demand from care users, and a community-based approach is supposed to be better adapted to the needs of the users. Hence, throughout the document, the concepts of demand of care and the support for a community-based approach were equated. Although previous efforts to develop community-based services are acknowledged, the policy states that a further step is now required to deepen the transformation of (supply-driven) residential care into (demand-driven) community-based care [31].

Such a demand-driven mental healthcare delivery system will supposedly reduce and intensify residential admissions, i.e. reduce the number and the length of stay of hospitalisations, saving these for acute care cases only. The document also notes that Belgium currently supplies a wide range of health and social community services to psychiatric patients, including in primary care settings.

However, these resources are still not well known by clinicians or correctly used when referring patients. When more oriented towards the demand of care, the new community-based model would include a diversification of the provision of community care, combined with more efficient referrals in care delivery.

Although expressed in terms of a quest to complete the deinstitutionalisation process, the main purpose of this policy seemed to be to support a balanced collaboration between the hospital sector and the community-based sector, not a complete transformation of residential care into community care. Indeed, the document states*: 'The model we wish to introduce must, with a global vision as staring point, ensure the integration of the resources of the hospitals and the resources of services existing in the community*[i]*.* The main tool suggested to organise this balanced model of care delivery was the implementation of networks of services.

The new model: networks of services

Networks of mental health services have to organise several circuits of comprehensive care in order to be able to cover the mental healthcare needs of the entire population of a specific area. Circuits and networks should include: (i) co-ordination and

i *"Le modèle que nous souhaitons mettre en place aura comme originalité d'associer, avec une vision globale, l'ensemble des institutions hospitalières et des services développés dans la communauté"* (p. 10).

governance processes, and (ii) new care functions and specialised services.

Firstly, as regards co-ordination and governance processes, the reform policy suggests that networks of services should be governed by a strategic committee made up of representatives from all the main health agencies within the network. Each strategic committee includes a network coordinator, whose task is to facilitate contacts and the organisation of care delivery between all the network's member agencies. The coordinator's task is described as organisational and not clinical. Moreover, the coordinator has no leading power or influence over funding: all internal procedures and clinical interventions are to be designed using a participatory and self-evaluated approach by members of the network. This is consistent with what Provan & Milward called a 'shared-governance' model [52,53]. This mode of governance is based on the interaction of all network members and is highly decentralised. It is well adapted for networks with relatively few members, a high level of trust between members, a good level of consensus on the objectives of the network, and low needs for complex tasks at the whole network level. This mode of governance also requires a high density of connections between members of the network. Moreover, it does not favour a clear leadership, or differentiation in terms of responsibilities and tasks.

Secondly, the reform policy requests networks of services to implement five basic 'care functions'. These 'care functions' could be defined as the type of care that has to be delivered in

partnerships between several community and hospital services. The articulation of the five 'care functions' is the core of the reform. The five care functions are: (i) prevention and early detection of mental health disorders, (ii) outreach, (iii) recovery and social rehabilitation of users, (iv) intensive residential treatment for acute cases, and (v) specific housing and long-term care facilities when no other solution is applicable. The first and third functions will clearly be based in community settings, whereas the fourth and fifth functions require residential settings. These four functions are to be covered by re-organising care delivery within existing services. However, function two (outreach), is to be delivered by new, specialised services. Outreach and home treatment are the most recent type of care to be developed within the Belgian mental healthcare system. Two types of outreach services (i.e. mobile teams) are suggested, one for acute and one for chronic cases. These two types of mobile team could be compared to the existing Assertive Outreach and Crisis Resolution teams in the UK [17].

The five care functions are to be interconnected within the service network, according to the figure presented in the policy blueprint (see Figure 1).

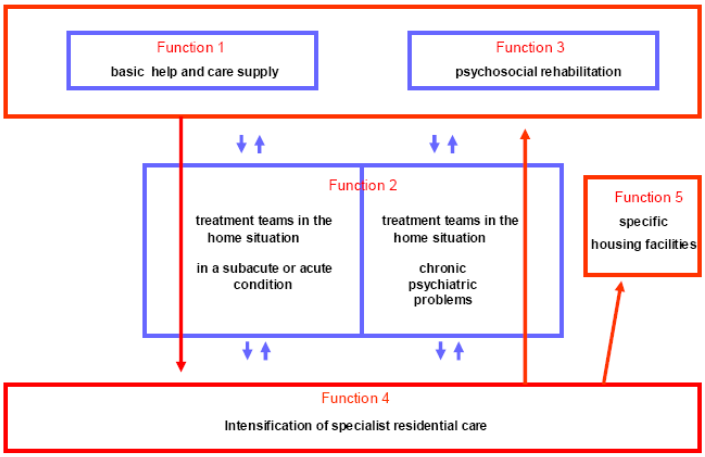

Figure 1. The five functions of the Belgian mental healthcare system as suggested within the reform

As shown in figure 1, the new outreach teams are to be highly central, connecting the community services that are involved in early intervention and rehabilitation (top of Figure) and the residential services involved in intensive treatment and long-term housing facilities (bottom of Figure). It is not clear, however, what type of connection the arrows represent, i.e. whether they indicate flow of users or some other form of contact between services. Nor it is explained how the services involved in these many care functions are supposed to collaborate. For example, it is very likely that most services will be involved in different functions at the same time: most community services will carry out prevention (function one), home treatment (function two), and rehabilitation activities (function three). Moreover, specific housing facilities (function five) appear as a final stage in this diagram, whereas in

fact it is very likely that the services involved in this function will also collaborate in rehabilitation programmes. It appears, therefore, that the figure is oversimplified and requires further detail to be provided elsewhere.

Goals and objectives

The reform blueprint presents five general aims: (i) 'deinstitutionalisation', (ii) 'inclusion', (iii) 'de-categorisation', (iv) 'intensification' of treatment in hospitals, and (v) 'consolidation'. ‘Deinstitutionalisation’ is referred to as the implementation of community-based care delivery and the avoidance, as far as possible, of hospital treatment. ‘Inclusion’ refers to the social rehabilitation and recovery of psychiatric users. ‘De-categorisation’ is defined as the implementation of collaborating procedures to supply integrated care across the different welfare sectors. ‘Intensification’ refers to shortening hospital stays, as well as reserving them for the most acute care. Finally, ‘consolidation’ means securing funding for previous pilot care projects and incorporating these into the new policy. These pilot projects were mostly new community-based, specialised services.

In addition to these five general aims, we identified twelve intermediate objectives. The aims and objectives, classified according to their domain and level of action [19-21] are presented in Table 1.

Table 1 Goals of the Belgian mental healthcare reform, classified according to levels of care integration and domains of action

	Structure	Process	Outcome
User		Home treatment**	***Inclusion*** Users' autonomy and rights** Tackle stigmatisation
Service	***Consolidation*** ***Deinstitutionalisation**** Collaboration structures*	Referrals*	Quality of care
System	Territorialisation* Service provision diversity**	***Intensification**** Early intervention** Individual care planning*	***De-categorisation**** Adaptation care provision - needs** Accessibility

* Oriented towards integration of care

** Oriented towards deinstitutionalisation

Two of the five aims, and five of the twelve objectives, are clearly oriented towards deinstitutionalisation, i.e. the *'the transformation of a supply-driven mostly residential mental health services towards a more diversified demand-driven mental healthcare provision, based on the needs of people with mental health problems and their actual living, learning, and working environment'*[i]. This concerns home treatment teams, early

i *"transformer une offre essentiellement résidentielle en des soins plus différenciés, basés sur les besoins des personnes atteintes de problèmes psychiques et partant de leur milieu de vie, de leurs conditions concrètes de vie, d'apprentissage et de travail"* (p. 4).

intervention, diversity in service provision, intensification of treatments in hospital, and the adaptation of the care provision to the needs and rights of the users. The latter refers to the Patient's Rights Act (2002) [54], which confirmed the principle of a free choice of healthcare professionals, the right to be informed, the right to refuse treatments, and the protection of privacy.

One of the aims and four of the twelve objectives are oriented towards better integration of care. This concerns the integration of hospitals resources and the existing resources of the community-based services into *'a global vision'*. It also concerns the need for collaborative structures, referrals, and individual care planning. To a certain extent, territorialisation, which is also suggested in the policy blueprint, is also considered as a process of health care integration: *'such a model implies that all actors within a specific, defined area must be involved in the organisation of that model. They will develop strategies for a solution to all mental health needs of people living in that area'*[i].

Tools

Several tools are mentioned as regards achieving these aims and objectives. These are summarised in Table 2.

i "L'organisation que nous préconisons concerne donc l'ensemble des intervenants présents sur un territoire délimité qui auront à créer des stratégies pour répondre à l'ensemble des besoins en santé mentale de la population de ce territoire" (p. 10).

Table 2 Tools suggested within the framework of the reform, at the three levels of care integration

	Tools
User	Care referents (case management)*
	Individualised care planning*
Service	Mobile teams (outreach)**
	Rehabilitation teams**
	Intensive residential units**
	Consolidation of previous pilot-projects**
System	Bottom-up implementation
	Funding through reallocation of hospital resources
	Networks of services*
	Network coordinators and services representatives*
	Network's strategic governance committees*
	Territorialisation

* Oriented towards integration of care

** Oriented towards deinstitutionalisation

As with the aims and objectives, some of the tools suggested are clearly oriented towards integration of care, e.g. the implementation of a case-management role, and the use of individualised care planning, both at the level of the user. Some of the tools suggested at the system level also are oriented towards care integration, such as the implementation of networks of services, and their coordination and governance bodies. However, the tools suggested at the service level are more oriented towards deinstitutionalisation: the new mobile teams, the rehabilitation

teams, the intensification of residential treatment units, and the consolidation of the previous community service pilot projects. No explanation is given as to how these tools should be implemented within a comprehensive model.

Issues with implementation and funding

Within the new model of mental healthcare delivery, some general principles as regards legislation and funding are pointed out. For example, the new specialised services, i.e. mobile teams, are legally considered to be part of the hospital units. Their funds are part of the global budget of the promoting hospitals. However, once again, most of these elements were not detailed. Each voluntarily participating hospital submitting a project had to propose its own implementation and funding strategy, which includes the allocation of funds for long-term beds to networks with community services. Thus, although the reform blueprint stated that: *'the reform cannot be organised exclusively from the hospitals'* (p. 20), these hospitals remain the main promoters of the care delivery. Indeed, they define their plans for networking, select their community partners, define the nature of their partnerships, appoint and pay for the network coordinators, and, finally, supply the main source of funding for the networks, including the new mobile teams. Although the reform aims for a balanced integration of hospital and community resources into care delivery networks, this approach to implementation and funding is highly likely to keep the power in the hands of hospitals.

Discussion: ex-ante evaluation

The policy blueprint for the Belgian mental healthcare reform aims to deliver a balanced, although thoroughly deinstitutionalised, model of care supply that should also be more integrated. These two purposes are, however, in potential conflict with each other, as fragmentation is known to be higher in community-based models [12,13]. To articulate these two purposes, a global model based on networks of services, as well as several intermediate aims, goals, and tools, are suggested. However, this new model is not comprehensively described, as it proposes a bottom-up approach requiring detailing in local plans. Compared to the theoretical benchmark suggested by Provan & Milward on mental health services networks [20,46,47], we can identify, ex-ante, several threats to the effectiveness of this reform.

Structure of networks and effectiveness in delivering integrated care

Based on research into inter-organisational networks of mental healthcare delivery, it is unclear whether it is possible to address deinstitutionalisation and care integration simultaneously. The proposed reform states that deinstitutionalisation will be achieved by increasing the diversity of community services, intensifying residential treatment, and implementing outreach and home treatment within new care functions. According to Provan & Milward, such goals and tools would require a network structure with a high density of connections between services, low

centralisation, numerous possible pathways of care (i.e. 'care circuits') for users, and a shared governance model. A network of this kind would be more efficient with relatively few partners and a high level of consensus between these partners concerning the network's goals [53]. Moreover, this type of network would correspond to the needs of relatively stable users with mild to moderate disorders [55]. Conversely, within the framework of the reform, integrated care requires coordinating structures and roles, individualised care planning, and case management. Such elements would require a much more centralised network structure, with a low density of connections and a limited number of pathways of care for users, but a strong leadership through a lead organisation governance model. This type of network would correspond to the needs of more unstable users with complex and severe disorders. As Provan & Milward noted, density and centrality appear to be difficult to maximise simultaneously. Moreover, differentiation between services, which corresponds to the purpose of deinstitutionalisation, and coordination, which corresponds to the purpose of care integration, are not favoured by the same network structure.

Although the reform blueprint suggests elements belonging to both network models, it does not indicate how these elements should be implemented, what criteria should be taken into account to make choices, or how these elements could be directed. For example, although networks of services are supposed to develop 'care circuits' for specific target groups, the reform itself never relates intermediate aims or tools to specific types of users.

Consequently, while trying to overcome the tension between hospitals and community-based services, the direction of the elements of the reform leads to further tension between two models of care integration, one based on the 'linkage' (an increase in possible pathways of care between multiple services), and one based on 'coordination' (the centralisation of pathways of care with the help of coordination tools, corresponding to a decrease in possible pathways) [55]. This is the first threat to the effectiveness of the reform.

Provan & Milward suggested that the most effective network structure involved small groups of densely interconnected services (*'cliques'*), connected to each other via a central agency. This type of structure may correspond to the suggested creation of 'care functions' as outlined in the reform blueprint, although the actual implementation of this collaboration structure is likely to vary according to local conditions.

Power and governance

The reform supports a balanced model of care delivery between hospitals and community-based resources. In terms of care delivery, hospital treatment should be a last resort restricted to the most acute cases. However, in terms of the organisation of the care supply, legal issues and funding mechanisms suggest that psychiatric hospitals remain the central actors as regards mental healthcare delivery. Voluntarily participating hospitals promoting the local network projects would have to select their own partners,

their preferred target groups of patients, and the actual procedures for collaboration. Psychiatric hospitals also pay and employ the network coordinators. The new outreach mobile teams are acknowledged as part of the hospital services. Finally, the main funding mechanism is based on the reallocation of hospital resources. Consequently, although hospitals might play a far less central role in the care delivery process, they would gain far more power in terms of the management of the networks and therefore, influence over their partners. This is the second threat to the effectiveness of the reform. This situation could also have important consequences for the model of governance of the service networks. Indeed, although the model suggests a shared type of network governance, Provan & Milward argued that this type of governance is likely to evolve into a more brokered form of governance, either by means of a network administrative agency specifically established for that purpose, or by a leading agency [53]. Moreover, shared governance might not be adapted to medium-sized networks. Without the creation of a specific governance body, networks could eventually strengthen the power of hospitals in the management of the mental healthcare supply.

Diversity

The reform is likely to produce a diversity of structural patterns of inter-agency connections. This is due to the bottom-up approach for decision-making, which allows the local promoters of network projects to develop their own implementation process. This could also be a consequence of mixed of goals and expectations that

cannot be achieved simultaneously. Finally, this diversity might result from the lack of criteria for defining priority target-groups of users. Although this diversity could be an opportunity to respond to local needs, it could also be an issue for healthcare delivery as a whole, particularly in terms of equity and homogeneity in the implementation of the reform. New types of needs for some groups of users might not be covered by the new healthcare delivery system. This is the third major threat to the effectiveness of the reform.

However, the diversity of local developments could also constitute an opportunity to learn from diverse experiences and eventually improve the overall quality of the policy, if this is coupled with a dissemination plan on best practice.

Conclusions

If policy-makers do not prioritise the aims and goals of the reform, it is very likely that it will produce a diverse range of results according to several factors, such as local conditions, implicit target groups of patients, balance of power between services, service and professional allegiances, or other elements influencing collaboration [56]. On the basis of the local implementation of service networks, the reform could fail to develop either a more community-based supply of care, or increased care integration. Moreover, it could lead to new, unmet, needs in the population of users.

However, it constitutes an interesting opportunity for researchers to examine the longitudinal and cross-sectional evolution of networks of mental health services starting from one policy, placed in similar global conditions, and possibly evolving differently due to local conditions. Their evaluation will bring new knowledge to the science of mental health services and system delivery.

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Chapter IV

Processes of Integration of Care within Mental Health Service Networks

The case of Psychiatric Advance Directives (PADs)

This chapter contains two articles presenting the results of a research project on Psychiatric Advance Directives (PADs). PADs are documents that allow psychiatric patients to notify their preferences for treatment in the event of a crisis. As such, they are a tool for organising psychiatric care within a process negotiated with the user. The project was funded by the *Fonds de la Recherche Scientifique Médicale* (the French-Speaking

Community's Fund for Medical Research) and was carried out between 2008 and 2010 in Belgium. Its main aim was to investigate the feasibility of the introduction of PADs adapted to the Belgian mental health care delivery system.

The first article presents the results of a realist systematic review of PADs. It identifies the different stages of the intervention and the different theoretical frameworks underlying it and synthesises the evidence available at each stage. The second article explores the views and values of stakeholders in relation to practical options for employing PADs.

The first article was first published online in 2012:
Nicaise P, Lorant V, Dubois V. Psychiatric Advance Directives as a complex and multistage intervention: a realist systematic review. *Health and Social Care in the Community.* 2012; doi: 10.1111/j.1365-2524.2012.01062.x

The second article is currently submitted for publication in *Psychiatric Services*:
Lorant V, Soto V.E, Dubois V, Nicaise P. Users' and health professionals' values in relation to a psychiatric intervention: the case of Psychiatric Advance Directives.

The research project on PADs also produced two other publications in French:

(1) Nicaise P, Geerts C, Lorant V, Dubois V. Directives Anticipées en Psychiatrie : Analyse des scénarios possibles en Belgique. In Coll., La protection de la personne des malades mentaux. Ethique, médecine et justice. Bruxelles: La Charte, 2011, 251-270.

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I. Psychiatric Advance Directives as a complex and multistage intervention: a realist systematic review

Pablo Nicaise • Vincent Lorant • Vincent Dubois

Health and Social Care in the Community (2013), 21(1), 1-14. doi: 10.1111/j.1365-2524.2012.01062.x, first published on-line 27th March 2012.

Abstract

Psychiatric Advance Directives (PADs) are documents that allow users with severe and chronic mental illnesses to notify their treatment preferences for future crisis relapses and to appoint a surrogate decision-maker for a period of incompetence. Despite many supposed clinical and organisational benefits, their take-up rate has remained very low and their clinical evaluation has given contradictory results for organisational outcomes. Intermediary results are available, however, which rely on different theoretical views about how PADs are supposed to work. We carried out a realist systematic review that considered the PAD as a multistage intervention including the definition of the document, its completion and its access and honouring. We identified the theoretical frameworks underlying this kind of intervention and examined the available evidence that supported or contradicted the expectations at each stage of the intervention. Forty-seven references were retrieved, ranging from 1996 to 2009. Three frameworks underlie a PAD intervention: enhancement of the

autonomy of the user, improvement of the therapeutic alliance and integration of care through partnership working. Although designed in the first place with a view to sustaining the user's autonomy, results indicate that the intervention is more efficient within a therapeutic alliance framework. Moreover, much is known about the completion process and the content of the document, but very little about its access and honouring. The mixture of expectations makes the purpose of PADs unclear, for example, crisis relapse prevention or management, advance planning of long-term or emergency care, or reduction in the resort to coercion. This may explain their low take-up rates. Hence, frameworks and purpose have to be clarified. The shape of the whole intervention at each stage relies on such clarification. More research is needed, particularly on the later stages of the intervention, as the evidence for how PADs should be implemented is still incomplete.

Keywords

Advance planning • Autonomy • Crisis plans • Psychiatric Advance Directives • Therapeutic alliance

What is known about this topic

- Despite many supposed benefits, the take-up rates of Psychiatric Advance Directives (PADs) remain low.
- Results of randomised trials on PADs are equivocal.
- Clinical and organisational barriers to their use have been identified.

What this paper adds

- Different frameworks underlie the intervention and make the purpose of PADs unclear.
- Although designed to enhance the user's autonomy, PADs are more efficient in sustaining the therapeutic alliance.
- Much is known about types and functions of the directives document and how to complete it, but more research is needed on how to access the document and honour its contents; indeed, their effective use and evaluation depend on the overall intervention.

Background

Psychiatric Advance Directives (PADs) are documents that allow users with severe and chronic mental illnesses to notify their treatment preferences for future crisis relapses and to appoint a surrogate decision-maker for a period of incompetence. Inspired by Szasz's 'Psychiatric Will', PADs were initially designed to enhance patient's autonomy by allowing them to state preferences for or against psychiatric treatments (Szasz 1982). Since then, PADs have been introduced into the legislation of numerous states in the USA and into that of other western countries (Atkinson 2007). Psychiatric Advance Directives are supposed to offer a series of clinical and organisational benefits, such as improving the feeling of empowerment of the user; improving the relationships between users, health providers and families; reducing hospitalisations, bed days and the resort to coercion or inpatient compulsory admission (Sutherby et al. 1999, Swanson et al. 2000, Henderson et al. 2004).

However, at the same time, several authors have pointed out numerous clinical and operational barriers to their use (Van Dorn et al. 2008): the reluctance of a number of stakeholders including psychiatrists and service users (Srebnik & Brodoff 2003, Atkinson et al. 2004, Van Dorn et al. 2008), the lack of competence of clinicians or service users to implement or honour the statements in a PAD (Peto et al. 2004, Elbogen et al. 2007a), legal and ethical issues relating to the liability for implementing or overriding the statements (Swanson et al. 2007) and the capacity of the care

system to organise partnerships and continuity of care around the user's preferences (Van Dorn et al. 2006).

A Cochrane systematic review of the effects of advance treatment directives for people with severe mental illnesses examined the effectiveness of PADs through two available randomised controlled trials (Campbell & Kisely 2009). Contrary to expectations, the review provided little evidence on the benefits of PADs for final outcomes, such as psychiatric admissions (voluntary or involuntary), bed days, compliance with mental health treatments, self-harm, violence, formal assessment under the Mental Health Act, or service use. However, it stated that PADs were well-suited for conveying patients' preferences in mental health and that more intensive intervention such as Joint Crisis Plans (a type of PAD involving the user, clinicians, and possible third parties in a negotiation process around its completion) may be more beneficial. In any case, PAD completion rates remain very low (Henderson et al. 2008).

Starting from that conclusion, we considered the PAD as a multistage intervention, including at a minimum: (i) PAD document definition, (ii) PAD completion and content and (iii) PAD access and honouring in times of crisis (Srebnik & La Fond 1999). Many results of PAD experiments are available in the scientific literature for intermediary outcomes at each stage. Consequently, in this article, we first set out to examine these empirical data. We also reviewed the different theories underlying PAD intervention: what is its main purpose and why should it work? We finally examined the

question of whether the evidence retrieved supported or contradicted the theoretical expectations identified.

Method

In a first step, 295 references were retrieved (after eliminating duplicates) through ISI Web of Knowledge and Medline databases, using the terms: (advance directives OR advance statements OR advance agreement OR joint crisis plan OR crisis card) AND (psychiatry OR mental health). This initial step was performed in July 2009. In a second step, the abstracts of the 295 selected papers were reviewed. A total of 103 references appeared to be clearly outside the scope of this literature review and were rejected. The rejected references were about psychological aspects of end-of-life advance directives, directives on dementia, advance consent to research in mental health, and psychological dimensions of advance directives for physical illnesses. One hundred and ninety-two references remained.

In a third step, three criteria were applied to restrict the sample of references. First, we included only references after 1991, when advance directives were incorporated into US legislation in the Patient Self Determination Act. Second, we restricted the sample to references that considered the PAD in the context of a clinical or social intervention. Third, we only kept references containing either quantitative or qualitative data on health and social outcomes. No other criterion, for example, regarding study design, was applied.

Indeed, according to the realistic review methodology, multiple methods for primary studies are required to gain as comprehensive a picture as possible of the intervention investigated. An update of the search was performed in December 2009. Other sources of information were also consulted, but they failed to yield further relevant references. The final sample of study references contained 38 research papers. All the references included related to the period from 1996 to 2009. Moreover, nine conceptual papers on PADs were also consulted to assist in designing the categories for analysis (Table 1).

Data processing and analysis

The realist review is an iterative method designed to assess complex interventions by identifying the theoretical mechanisms through which the intervention is supposed to work, then by evidencing the actual conditions of its implementation, and finally, by assessing the integrity of the proposed theories (Pawson et al. 2005). Following these guidelines, we defined a set of key references within the sample, including the ten most-cited articles, the nine conceptual papers referred to above, and one monograph by Atkinson (2007). The analysis of the set of key references allowed us to draw up a list of thematic categories covering the issues relating to PADs that have been addressed in the literature. During the coding process, some categories may have been merged or unmerged and reordered to produce the coding categories tree presented in Table 2.

We carried out a thematic qualitative analysis by axial coding of the 38 research articles. On the one hand, for each category of analysis, we identified the different theories underlying the purpose of and arguments developed about that specific category. We then synthesised these underlying theoretical expectations into three main frameworks that set out how the PAD is meant to work throughout the whole set of categories. These frameworks were completed by taking into account the stakeholders' views as reported in the literature. On the other hand, within each category, we registered the corresponding empirical data when available. These data were classified according to their support for or contradiction of the theoretical expectations identified, and ordered along the proposed multistage intervention process. We paid specific attention to the context of and the features used during the randomised trials.

Table 1 References included

Empirical studies

	Study	Country	Setting	Stakeholders involved	Method	Topic explored
1	Campbell & Kisely (2009)	England	IPU + CMH	Users (*N* = 316)	Meta-analysis (Cochrane)	PADs vs usual care in terms of clinical and organisational outcomes
2	Khazaal *et al.* (2009)	Switzerland	IPU	Users (*N* = 20)	Observational	Effects of a CBT intervention on PAD completion with bipolar users
3	Khazaal *et al.* (2008)	Switzerland	IPU	Users (*N* = 20)	Follow-up	Follow-up of the previous CBT intervention for PAD completion
4	Henderson *et al.* (2009)	England	CMH	Users (*N* = 62) Case managers (*N* = 28)	Follow-up	Users' and case managers' views on JCP
5	Flood *et al.* (2006)	England	CMH	Users (*N* = 160)	RCT	Economic evaluation of JCP vs usual care
6	Henderson *et al.* (2004)	England	CMH	Users (*N* = 160)	RCT	Effects of JCP vs usual care
7	Sutherby *et al.* (1999)	England	CMH	Users (*N* = 42)	Observational	Users' preferences for JCP vs crisis cards
8	Kim *et al.* (2008)	USA	Various	Social workers (*N* = 193)	Survey	Attitudes and decision-making of social workers regarding PADs
9	Swanson *et al.* (2007)	USA	Various	Psychiatrists (*N* = 164)	Survey	Psychiatrists' views on overriding PADs
10	Elbogen *et al.* (2006)	USA	Various	MH clinicians (*N* = 597)	Survey	Clinicians' attitudes to PADs
11	Van Dorn *et al.* (2006)	USA	CMH	Psychiatrists (*N* = 164) Psychologists (*N* = 234) Social workers (*N* = 193)	Survey	Clinicians' attitudes to barriers to PAD use
12	Srebnik & Russo (2008)	USA	CMH + ED	Users (*N* = 69)	Retrospective	Actual PAD access in crisis
13	Srebnik & Russo (2007)	USA	CMH + ED	Users (*N* = 35)	Retrospective	Crisis care consistency with PADs

Table 1 (Continued)

Empirical studies						
	Study	Country	Setting	Stakeholders involved	Method	Topic explored
14	Srebnik *et al.* (2005)	USA	CMH	Users (N = 80)	Observational	Competences to complete PADs and CAT-PAD testing
15	Peto *et al.* (2004)	USA	CMH	Users (N = 106) Clinicians (N = 184)	Survey + observational	f-PAD testing for completion
16	Srebnik *et al.* (2003)	USA	CMH	Users (N = 303)	Survey	Users' views on PADs
17	Van Dorn *et al.* (2008)	USA	CMH	Users (N = 469)	RCT	Barriers to f-PAD completion
18	Elbogen *et al.* (2007a)	USA	CMH	Users (N = 469)	RCT	Competences for f-PAD completion
19	Elbogen *et al.* (2007b)	USA	CMH	Users (N = 125)	Survey	Perceived empowerment with f-PADs
20	Kim *et al.* (2007)	USA	CMH	Users (N = 28)	Qualitative interviews	Users' views on f-PADs
21	Swansson *et al.* (2006a)	USA	CMH	Users (N = 469)	RCT	Effect of f-PADs vs PADs
22	Swartz *et al.* (2006)	USA	CMH	Users (N = 150)	Survey + document analysis	Contents of completed f-PADs
23	Van Citters *et al.* (2007)	USA	CMH	Users (N = 150)	Observational	Hypothetical scenario for f-PAD completion
24	Swanson *et al.* (2006b)	USA	Various	Users (N = 1100)	Survey	Comparative use of PADs in 5 US cities
25	O'Connell & Stein (2005)	USA	CMH	Clinicians (N = 272)	Survey	Clinicians' views on PADs
26	Amering *et al.* (2005)	Austria	Training prog.	Users (N = 33)	Qualitative interviews	Service users' views on PADs
27	Papageorgiou *et al.* (2004)	England	IPU	Users (N = 59) Clinicians (N = 31)	Qualitative interviews	Service users' and clinicians' feedback on RCT results
28	Papageorgiou *et al.* (2002)	England	IPU	Users (N = 156)	RCT	Effects of PADs vs usual care

Table 1 (Continued)

	Study	Country	Setting	Stakeholders involved	Method	Topic explored
Empirical studies						
29	Varekamp (2004)	Netherlands	Various	Users (*N* = 19) Carers (*N* = 15) Clinicians (*N* = 17)	Qualitative survey	Stakeholders' views on UD in the Netherlands
30	Atkinson *et al.* (2004)	England + Scotland	IPU, NHS trusts, users' advocacy, MH casework	Psychiatrists (*N* = 168) Psy. nurses (*N* = 56) Social workers (*N* = 117) Other MH clinicians (*N* = 93)	Stakeholders' analysis	Models of PADs and stakeholders' analysis
31	Atkinson *et al.* (2003a)	England + Scotland	IPU, NHS trusts, users' advocacy, MH casework	Psychiatrists (*N* = 168) Psy. nurses (*N* = 56) Social workers (*N* = 117) Other MH clinicians (*N* = 93)	Qualitative stakeholders' analysis preparation	Models of PADs and stakeholders' analysis
32	Srebnik *et al.* (2003)	USA	Various	Clinicians (*N* = 296)	Survey	Clinicians' views on PADs
33	Swanson *et al.* (2003)	USA	Various	Users (*N* = 104) Carers (*N* = 117) Clinicians (*N* = 85)	Survey	Stakeholders' views on PADs
34	de Haan *et al.* (2001)	Netherlands	Various outpat.	Users (*N* = 99) Carers (*N* = 100) Clinicians (*N* = 263)	Qualitative survey + Rating	Preferences for PAD completion + competences needed
35	Backlar *et al.* (2001)	USA	CMH + Rehab. Centre	Users (*N* = 40) Carers (*N* = 17) Clinicians (*N* = 21)	Qualitative survey	Stakeholders' use and understanding of PADs
36	Amering *et al.* (1999)	Austria	Psych. Dept. in University	Clinicians (*N* = 101)	Survey	Psychiatrists and psychiatric nurses' views on PADs
37	Sherman (1998)	USA	Clubhouse programme	Users (*N* = 60)	Observational	Testing of a computer-assisted PAD completion
38	Backlar & McFarland (1996)	USA	Newsletter for users and carers	Users and carers (*N* = 156)	Survey	Actual completion of PADs

Table 1 (Continued)

Conceptual references used to define the categories for analysis		
	Study	Topic explored
39	Henderson *et al.* (2008)	A typology of PADs
40	Szmukler (2008)	Description of several types of PADs
41	Henderson *et al.* (2007)	Expected different effects of the 'classic PAD' and the JCP on shared decision-making
42	Scheyett *et al.* (2007)	Expected benefits of PADs for empowerment and recovery
43	Thomas & Cahill (2004)	Comments on expected effects of PADs on compulsory admissions
44	Atkinson *et al.* (2003b)	Issues in the development of PADs
45	Joshi (2003)	Description of PADs
46	Swanson *et al.* (2000)	Expected different effects of PADs and outpatient commitment
47	Srebnik & La Fond (1999)	Description of a full PAD process

CMH, community mental health; ED, emergency department; IPU, inpatient unit.

Table 2 Axial coding tree of categories (main issues addressed in the literature on PADs)

Users' views on and attitude to PADs
Empowerment, autonomy of the user
Seclusion – coercion
De-escalating methods/Early signs of crisis
Electro Convulsive Therapy
Non-medical statements
User reluctance
Profiles of users completing PADs
Clinicians' views on and attitude to PADs
Autonomy of clinicians' decisions – overriding
Clinicians' reluctance/concerns
Profiles of clinicians endorsing PADs
Competences required
Users' competence in relation to illness (morbid insight), functioning
Users' competence to fill in PAD/Consistency of statements/Utility
Clinicians' competence to negotiate/help filling in a PAD
Clinicians' competence to access/honour a PAD
Operational (system) features to access and honour a PAD
Information required
Clinicians' need for information
Users' need for information
Carers' and others' need for information
Content of PADs
Types and models of PADs
Classic PADs and crisis cards
f-PADs
JCPs
Functions of PADs
Prescription
Proscription
Surrogate

Table 2 (Continued)

Advance consent to treatment (UD)
Interpersonal relations (Clinicians – users – carers)
Compliance
Crisis prevention and management
Health providers networking (Mental Health – General Health – Social Care)
Facilitation features for PAD completion
Technical features for registration and access
Ethical issues/Legal constraints and conflicts
Organisational outcomes
Length of stay/Admissions
Coercion, legislation use
Costs
Violence

Results

The characteristics of the studies included are described in Table 3. A majority of studies involved service users: two studies were specifically dedicated to users with bipolar disorders, and 27 involved mixed groups of users with schizophrenia and other psychotic disorders, bipolar and major depression disorders. Sixteen studies involved clinicians in mental health, mainly psychiatrists, psychiatric nurses, psychologists, social workers in mental health settings and case managers. Five studies included carers. Twenty-seven references, reporting twelve different study processes, occurred in Community Mental Health settings in the USA and England. Fourteen references, reporting the results of nine different studies, related to inpatient psychiatric units, and twelve references reported results in other care settings.

Table 3 Characteristics of the studies (stakeholders involved, settings, country of study, main methodology, topics and stages

Characteristic	Studies involved	Total
Stakeholders involved	43	
Service users (N ≅ 3634)	1–7, 12–24, 26–29, 33–35, 37–38	29
Clinicians (N ≅ 2077)	4, 8–11, 15, 25, 27, 29–36	16
Carers (N ≅ 327)	29, 33–35, 38	5
Settings		
Community Mental Health (CMH)	1, 4–25, 29, 32–33, 35	27
Inpatient units (IPU)	1–3, 8–10, 24, 27–33	14
Other outpatient	30–31, 34–35, 37	5
Emergency and crisis departments (ED)	12–13	2
Other	26, 30–31, 36, 38	5
Country		
USA	8-25, 32–33, 35, 37–38	23
England	1, 4–7, 27–28, 30–31	9
Scotland	30–31	2
Switzerland	2–3	2
Austria	26, 36	2
The Netherlands	29, 34	2
Methodology		
Quantitative surveys	2, 8–11, 15–19, 21–22, 24–25, 30, 32–36, 38	21
Qualitative interviews, focus groups, content analysis, observations	3, 20, 26–27, 29, 31, 34	7
Quantitative randomised controlled trials	5–6, 17–18, 21, 28	6
Quantitative observational studies	7, 14–15, 23, 37	5
Quantitative retrospective studies	12–13	2
Quantitative meta-analysis (Cochrane)	1	1

Table 3 (Continued)

Stages		
PAD document definition	1, 4, 7–11, 16, 20–21, 25–26, 29–33, 36	18
PAD completion	1–4, 6–7, 14–24, 27–29, 34–35, 37–38	24
PAD access and honouring	12–13	2
PAD process evaluation	1, 5–6, 28	4
Topics		
Clinicians' views on and attitudes to PADs	8–11, 25, 27, 29–36	13
Competences needed for f-PAD use, and f-PAD effects	15–23, 37	11
Users' views on and attitudes to PADs	4, 7, 16, 26–27, 29–31, 33, 35	10
PAD clinical process evaluation (clinical trial)	1, 6, 28	3
PAD completion and understanding	2–3, 38	3
Carers' views on and attitudes to PADs	29, 33	2
PAD access and honouring	12–13	2
Economic evaluation of the use of PADs	5	1
Comparative actual PAD completion	24	1
Competences of users for PAD completion	14	1

The total number of references for each characteristic may be higher than 38 as many categories are not exclusive.

Most studies concentrated on the early stages of the PAD process. Indeed, 18 articles focused on PAD document definition, whereas 24 investigated the PAD completion stage. Only two studies considered the access and honouring stage of PADs: one looked at

PAD access in times of crisis and the other at the consistency of the actual care with PAD statements. Finally, four studies evaluated outcomes of PAD use: these include the Cochrane review mentioned above, the two available trials included in the review (Papageorgiou et al. 2002, Henderson et al. 2004, Campbell & Kisely 2009) and an economic assessment of Henderson's trial (Flood et al. 2006). The major topics investigated were the stakeholders' views on PADs (mainly clinicians and users) and the development and effects of features that facilitate the effective use of PADs.

Theoretical frameworks underlying PAD intervention

Across the literature, three main theoretical frameworks, or set of expectations were invoked to explain the many benefits expected from the use of PADs: (i) enhancement of the user's autonomy, (ii) improvement of the therapeutic alliance and (iii) integration of care through health providers working in partnership. These three frameworks may, moreover, affect the three levels of action of a complex intervention, as described by Pawson et al. (2005): the level of the user, or intrapersonal level; the level of the relations between the user, his/her friends and relatives, and the clinicians around him/her, or interpersonal level; and the level of the organisation of care. Cross-referencing the three frameworks identified and the three levels of action of the intervention made it possible to classify the main expected benefits of PAD intervention, as summarised in Table 4.

Table 4 Main expected benefits of a PAD intervention within its three levels of action and the three underlying theoretical frameworks identified

	Theoretical framework		
Level of action	User's autonomy	Therapeutic alliance	Integration of care – Partnership working
Intrapersonal	Involvement of the user	Compliance	Continuity of care
Interpersonal	Empowerment	Shared decision-making Early intervention	Sharing information Networking
Organisational	Recovery	Reduction of involuntary treatment	Reduction of hospitalisations

The first framework underlying the PAD intervention is the enhancement of the user's autonomy, which was its original goal (Srebnik et al. 2003, Elbogen et al. 2007b, Szmukler 2008). At an intrapersonal level, allowing the user to express his/her treatment preferences and to make statements about his/her life and illness should be a way to develop his/her involvement in the treatment (Amering et al. 1999, Papageorgiou et al. 2004, Elbogen et al. 2007b). Many clinical outcomes in psychiatry have been associated with an improvement in the user's insight, self-esteem, or accountability or with his / her satisfaction with treatment (Trivedi & Wykes 2002, McCabe et al. 2007). At the interpersonal level, the enhancement of the user's autonomy supposes the development of his / her feeling of empowerment (Backlar & McFarland 1996, Atkinson et al. 2004, O'Connell & Stein 2005, Kim et al. 2007), and hence should be a tool for recovery, reducing symptoms, reducing crisis relapses and improving the social

integration of the user at the organisational level (Sutherby et al. 1999, Backlar et al. 2001, Scheyett et al. 2007).

The second set of expectations is the improvement of the quality of the therapeutic alliance between the user and the clinicians and possibly of the global relationships involving the user, the user's family/friends and the clinicians (Summers & Barber 2003, Priebe & McCabe 2006). In this context, the PAD document is perceived as a tool for the exchange of information (Atkinson et al. 2003b). An improved information exchange between the clinicians and the user should have an effect on mutual understanding and sustain compliance with treatment at the intrapersonal level (Henderson et al. 2004, 2009), facilitate access to the information needed by all the stakeholders and the sharing of decision-making on treatment at the interpersonal level (Srebnik & La Fond 1999, Papageorgiou et al. 2004, Khazaal et al. 2009, Drake et al. 2010), and, hence, improve the overall quality of care (Adams et al. 2007). From an organisational point of view, it should help early intervention and have an impact on reducing compulsory admissions (Swanson et al. 2000, Papageorgiou et al. 2002, Henderson et al. 2004, Thomas & Cahill 2004).

The third framework, finally, concerns the integration of care through health providers working in partnership. As advance planning for what is to be done in times of crisis, the PAD document is here seen as a tool for coordinating tasks between several health and social providers and clinicians. Thereby, it makes it possible to plug gaps in the organisation of health and

social care delivery around the user (Swanson et al. 2000, Backlar et al. 2001, Swartz et al. 2006). At the intrapersonal level, this should improve the continuity of care for the user (Heslop et al. 2000). At an interpersonal level, the dissemination of information among health providers should contribute to networking between health providers (Fleury & Mercier 2002, Glasby & Dickinson 2008), and hence reduce the numbers and length of stay of hospitalisations (Papageorgiou et al. 2002, Atkinson et al. 2004, Henderson et al. 2004).

Stakeholders' expectations

There have been important discrepancies in stakeholders' views (those of mental health clinicians, especially psychiatrists, service users and families) in terms of their expectations as to the use and utility of PADs. Users generally asked for more equality in their relationship with health providers (Atkinson et al. 2004, Elbogen et al. 2006) and hence saw the PAD as a tool for persuading clinicians of their wishes and avoiding conflicts in treatment decisions (Amering et al. 2005). They usually preferred legally binding forms of PADs (Atkinson et al. 2003b). In users' views, the PAD has clearly been understood as a tool to support their autonomy.

As for clinicians, they endorsed conceptually the importance of a greater involvement of users in their treatment and the value of PADs as a tool to facilitate this (Atkinson et al. 2004, Elbogen et al. 2006). However, there were significant differences between

professions. Psychiatrists were generally far more reluctant to perceive PADs as beneficial (Swanson et al. 2003, Atkinson et al. 2004, Papageorgiou et al. 2004, Elbogen et al. 2006, Van Dorn et al. 2006). They were concerned with the reduction in their own autonomy and power in decision-making: they argued, for example, that legally binding, prescriptive directives would not offer anything useful, as statements would be consistent with actual practice, while legally binding proscriptive directives would be used to refuse all treatments (Atkinson et al. 2004). They were also concerned with their liability and possible decisional conflicts in case of legally binding PADs (Atkinson et al. 2003b), with the administrative burden of the intervention (Papageorgiou et al. 2002), and with the competences of users to make adequate statements, fill in the PAD document, and understand the intervention process (Backlar et al. 2001, Van Dorn et al. 2008). Most of them said that those users who most need a PAD would be the least inclined to make one, whereas relatively healthy and stable patients, competent to use it, would not really need it (Swanson et al. 2000). Although they doubted the capacity of the care system to correctly implement PADs (Van Dorn et al. 2006), some psychiatrists and other clinicians were interested in the document as a reminder of the care plan and process for the user (Swanson et al. 2000). This view is more oriented towards an improvement of the therapeutic alliance.

Finally, family members appeared to be in an intermediary position, supporting the idea of empowering users and involving them more in their treatment, but at the same time, concerned

about the liability of clinicians when the stated preferences are not followed (Swanson et al. 2003). Family members were even more supportive of compulsory treatment than clinicians (de Haan et al. 2001) and of the irrevocability of the PAD during a crisis and supported the function of surrogate decision-making, which would give them more input in the treatment (Swanson et al. 2003). This view is hence oriented towards an improvement of the therapeutic alliance that includes the carer as a decision-maker.

First stage: types of PADs

The literature describes different types of PADs with a variety of names: psychiatric will, advance directives, advance statements, advance agreements, advance instructions, crisis cards, among many others (Szasz 1982, Atkinson 2007). Henderson proposes a typology of PAD documents (Henderson et al. 2008). The range of stakeholders involved in their completion is one key variable among types of PADs. In its origins, the PAD was meant to be produced by the user on his/her own. This first type of PAD, which we refer to as the 'classic PAD', was the most common in the United States and was considered to be a legal document. However, because its take-up rate remained very low, several features were introduced to help users complete PADs: for example, information and training sessions (Srebnik & Brodoff 2003, Amering et al. 2005), structured booklets to fill in (Papageorgiou et al. 2002, Swanson et al. 2006b), the use of a hypothetical scenario (Van Citters et al. 2007), trained facilitators (Swanson et al. 2006b, Elbogen et al. 2007a, Khazaal et al. 2009),

and a computer-assisted directive (Sherman 1998). This second type of PAD is called a 'facilitated PAD' (f-PAD), as the user is helped to state his / her preferences, but still without the involvement of clinicians. The third type is the Joint Crisis Plan (JCP), which has been experimented with in the United Kingdom (Henderson et al. 2004, 2009). This type of PAD involves the user and mental health clinicians in a negotiated completion process, as well as third parties such as friends and relatives of the user or a case manager.

Of the 38 retrieved references, 17 used a 'classic PAD', 15 used an f-PAD and 4 used a JCP. Moreover, one randomised trial compared the effects of an f-PAD with those of a 'classic PAD' and concluded that f-PADs significantly increased the rate of PAD completion within 2 months of the baseline compared with the control group (Swanson et al. 2006b). The two randomised trials included in the Cochrane review compared a booklet to fill in (f-PAD) with usual care, and a JCP with usual care (Campbell & Kisely 2009). Letting the user produce a PAD alone (Classic PAD) or helped by facilitation without clinicians (f-PAD) is underlain by the users' autonomy framework, whereas the negotiation process of the JCP fits in more with the therapeutic alliance framework (Henderson et al. 2008).

Most studies point out that users actually report a feeling of self-determination and empowerment when completing a PAD; this was, however, the case with all three types: the 'classic PAD' (Backlar et al. 2001, Srebnik et al. 2003, Amering et al. 2005), the

f-PAD (Amering et al. 2005, Elbogen et al. 2007a, Kim et al. 2007) and the JCP (Henderson et al. 2009). In other respects, most users involved in the studies with a 'classic PAD' reported a lack of information and for the need for help in completing it (Backlar et al. 2001, Srebnik et al. 2003, Swanson et al. 2003). The various facilitation features examined were all found to be of interest to users and feasible. Some showed higher take-up rates of PAD completion with f-PADs than with 'classic PADs' (Swanson et al. 2006b, Elbogen et al. 2007a).

There is no evidence available that one type of PAD would be more effective than another for increasing user autonomy. However, f-PADs seem to significantly increase the working alliance as compared with the 'classic' PAD (Swanson et al. 2006b). There is no evidence available that makes it possible to compare the effect of the different types of PADs, as against the usual care, on therapeutic alliance. The two randomised trials measuring the effects of PADs on clinical and organisational outcomes did not actually directly assess these outcomes. However, Henderson's trial showed positive results in terms of the number of involuntary inpatient admissions (Henderson et al. 2004). That outcome is related to the therapeutic alliance framework at the organisational level. The type of PAD in use in this trial was a JCP. As for Papageorgiou's trial, it showed no significant result with an f-PAD (Papageorgiou et al. 2002).

First stage: functions of PADs

Preferences for treatment can be stated in the form of advance instructions or in the form of the designation of a proxy with surrogate decision-making capacities during the period of incompetence (Elbogen et al. 2006). According to Swartz et al. (2006), there are four basic functions of PADs: prescription (choice of options), proscription (rejection of options), surrogate decision-maker designation and irrevocability during a crisis. The latter, which gives advance consent to involuntary treatment, is also known as a self-binding or 'Ulysses' directive (Varekamp 2004). This function raises specific legal and ethical issues that will not be discussed here.

Prescription is one basic function of PADs and is supported within all the theoretical frameworks. However, proscription, which was the main purpose of Szasz's psychiatric will, is still one major contentious issue in the literature. In a study comparing several models of PADs, Atkinson showed that the option of refusing treatment is mainly supported by users and members of users' advocacy organisations, especially when the PAD is legally binding; psychiatrists are less keen on that option (Atkinson et al. 2004). Several other studies focused specifically on clinicians' opinions regarding proscriptive PADs. They reported that a majority of clinicians would not endorse PADs containing refusals of treatment; social workers were more supportive, and psychiatrists less supportive (Elbogen et al. 2006, Van Dorn et al. 2006,

Swanson et al. 2007, Kim et al. 2008). Hence, the function of proscription is mainly underlain by the users' autonomy framework.

However, clinicians were less likely to override treatment refusals when they are not legally binding, when they had more professional experience, when they were more aware of the legislation on PADs, or when a surrogate decision-maker was appointed. Psychiatrists were also more likely to follow opting-out instructions when these were endorsed by the family (Elbogen et al. 2006) or when mental health professionals were involved in producing the instructions, which is the case with some f-PADs and with JCPs (Srebnik et al. 2005).

Most clinicians underpin their reluctance to follow proscriptive PADs by pointing to the fear that they could be used to refuse all treatments. Such concerns are not confirmed by available evidence: users are generally interested in helping clinicians to make decisions; they give treatment indications to that end and are willing to argue their treatment refusals (Amering et al. 1999, 2005, Elbogen et al. 2007b). Moreover, these are generally consistent with clinical practice (Swartz et al. 2006, Van Dorn et al. 2006). A second concern of clinicians about proscriptive PADs is that users could not be sufficiently aware of the possible consequences of their refusals. Once again, this situation is less likely to happen when a facilitator or a clinician is involved in drawing up the PAD document (Atkinson et al. 2004, Van Citters et al. 2007). All these results indicate that the proscriptive PAD is

more likely to be taken into account within an improved therapeutic alliance framework.

The function of surrogate decision-making in times of incompetence also raises controversial issues. Although the option of a proxy designation is not available in the United Kingdom (Atkinson 2007), the appointment of a person with 'Durable Powers of Attorney' is the most used function of PADs in the USA and receives the highest rates of endorsement by clinicians (Elbogen et al. 2006, Swanson et al. 2006b, Kim et al. 2008). Having a surrogate decision-maker is a key predictor of having an instructional PAD accessed and of consistency of care (Srebnik & Russo 2008), but at the same time decreases the likelihood of having the instructions followed (Srebnik & Russo 2007). These results indicate that the surrogate decision-maker function is supported within the framework of the therapeutic alliance or the framework of the organisation of care.

Users are also very interested in designating a proxy (Amering et al. 2005, Swanson et al. 2006b, Swartz et al. 2006), particularly with a view to enforcing proscriptive preferences (Backlar et al. 2001, Kim et al. 2007). In such cases, the surrogate designation function is perceived from the point of view of user autonomy. However, some users report that they would like to appoint a surrogate decision-maker and cannot find one, as legislation in some US states forbids appointing their own physician (Backlar et al. 2001). This observation indicates that, even in users' views, the

designation of a surrogate decision-maker could also be considered within the therapeutic alliance framework.

Nonetheless, many clinicians expressed concerns about possible conflicts between the user and his / her proxy, especially with legally binding forms of PADs. First, this legal power could affect the relationship between the user and the family (Atkinson et al. 2004). Indeed, it appears that proxies are more likely to use a 'best interest' standard rather than a 'substitute judgement' standard of decision, that is, to decide according to the proxy's perception of the user's interest rather than according to the proxy's interpretation of the user's likely preference (Srebnik & La Fond 1999). Second, there could be legal conflicts between the proxy's decisions and the user's statements. This could lead to litigation against the health providers (Srebnik & Brodoff 2003). These arguments weaken the case for the possible benefits of the function of surrogate decision-maker designation within the therapeutic alliance framework.

Second stage: PAD completion and content

There is a great variety of forms and information contained in the PAD documents that were used in the studies reviewed. Some of these studies focused specifically on investigating the type and form of the information that should be included in a PAD document. In some US states, the content of the PAD document is determined by the law (Backlar et al. 2001, Swanson et al. 2006a). The basic information in all PAD documents covers the

user's preferences in relation to medication and hospitals, information on crisis and relapse symptoms, persons to be notified (generally the user's usual clinicians and his / her relatives or friends), and when the option applies, the designated surrogate decision-maker. The following additional clinical information can be included: protective factors and de-escalating methods, instructions for inpatient staff, supplementary information on allergies and the side effects of medication, specific choices regarding Electro Convulsive Therapy (Swanson et al. 2006b, Elbogen et al. 2007b), and recent medical history (Papageorgiou et al. 2004). There seems to be a consensus on the value of this type of information across the three main groups of stakeholders (de Haan et al. 2001, Atkinson et al. 2004).

In addition, some studies show that users are also interested in adding non-treatment directives to the PAD: care for dependents, persons prohibited from visiting, assistive devices, instructions regarding finances, pet care, dietary preferences or other people to contact (Sherman 1998, Srebnik & Russo 2007). In Henderson's trial, up to 20 percent of the completed JCPs contained such non-treatment directives. The value of non-treatment directives is described as particularly relevant to the enhancement of user autonomy.

All this information is relevant within the three theoretical frameworks underlying the PAD intervention. However, the form in which the information is presented within the document is related to its use and hence points to the theoretical framework that

underlies it. In Papageorgiou's trial, the f-PAD document contained contact details of the user and of his / her usual clinicians: a general practitioner, a community psychiatric nurse, a keyworker, a psychiatrist and a social worker. It also contained seven sentences to be completed by the user, in the form of: 'I notice I am becoming ill again when I...', 'If I do seem to be becoming ill again I would like...' The sentences covered: (i) early signs of crisis, (ii) wishes for preventing the crisis, (iii) recent events, (iv) refusals, (v) persons to be contacted, (vi) instructions for hospital admission and (vii) instructions for inpatient staff (Papageorgiou et al. 2002). Although the information may be relevant irrespective of the theoretical framework, the two-first pieces of information are relevant to the prevention of a crisis to avoid inpatient admission, while the remainders are relevant to the management of the crisis when it has occurred and the user is admitted to hospital. Consequently, the information on crisis prevention is more concerned with the improvement of the therapeutic alliance, while the information on crisis management is more oriented towards the organisation of care among clinicians.

In Henderson's trial, the JCP contained the information chosen by the user under four suggested headings: contact details, current care and treatment plan, care in a crisis and practical help in a crisis. The most frequent options actually chosen by users were: (i) contact details of the user, the consultant, the general practitioner, the psychiatric nurse and the nominee (trusted person nominated by the user); (ii) mental health problem or diagnosis; (iii) current medication and dosage; (iv) early signs of crisis; and (v)

instructions to follow at the beginning of a crisis (Sutherby et al. 1999, Henderson et al. 2004). The JCP is thus more clearly designed for the crisis management, and is underlain by the framework of the organisation of care among clinicians.

Third stage: PAD access and honouring

Very little is known about the PAD access and honouring stage, as only two references, both in relation to the same study, focus on this stage (Srebnik & Russo 2007, 2008). In the study, 106 users in Washington State completed a computer-assisted PAD. This f-PAD was disseminated among stakeholders via multiple strategies: it was mailed to persons chosen by the user, copies were given to the designated surrogate decision-makers and placed in the user's medical records; a flag was added to the user's electronic registry, psychiatric crisis units in the county also received a copy of it, and it was stored at a 24-hour crisis clinic. Users were provided with a crisis card to carry with them and also with a bracelet. All these features were set up during an experimental period in which clinicians were informed and trained in the use of PADs. Over the following 2 years, 69 users had a total of 450 crisis events. In spite of the numerous strategies described above, the PAD document was accessed in just 90 events. Access to the document does not indicate that it was actually used or honoured (Srebnik & Russo 2008). In the second reference, results indicated that the average rate of consistency of care with the directives contents was 67% during the 90 crisis events. However, as this study was retrospective, there is no indication whether care was consistent

because the PAD was honoured or simply as the result of the usual care being given (Srebnik & Russo 2007).

The PAD access and honouring stage has not been specifically investigated elsewhere. No information has been collected on the actual access or use of the completed PADs in the two randomised trials identified. However, for each of the trials, results were published with feedback from the participants (Papageorgiou et al. 2004, Henderson et al. 2009). Two thirds of the JCP holders in Henderson's trial made no further use of it. Six of 13 audits following hospital admissions showed that at least some stated preferences were not followed (Henderson et al. 2009). And most of the users involved in Papageorgiou's trial had forgotten to use their f-PAD, while clinicians reported that they did not find it useful, did not refer to it and did not take it into account in subsequent care (Papageorgiou et al. 2004).

Several studies mention service users' worries about a 'backfire effect', i.e. their fear that PADs would be ignored, as being a barrier to their use (Backlar et al. 2001, Atkinson et al. 2004); clinicians also mention the lack of health providers' partnerships as an organisational barrier to their implementation (Van Dorn et al. 2008).

As a result, there is no sufficient evidence available to assess the different theoretical frameworks underlying PAD intervention at the access and honouring stage. However, the endorsement of the PAD by clinicians and organisational steps to honour the directives

in times of crisis appears to be decisive in terms of the actual use made of it.

Discussion

We considered the PAD as a complex and multistage intervention, and not just as a single document: this included the definition of the document, its completion, and the accessing and the honouring of its contents. By carrying out a systematic realist literature review, we identified the frameworks underlying the PAD and the stakeholders' views, and reviewed the evidence that confirmed or contradicted expectations. Three frameworks have been identified that underlie the PAD: the enhancement of the user's autonomy, the improvement of the therapeutic alliance, and the integration of care through health providers working in partnership. Although these expectations are mentioned throughout the scientific literature, none of these outcomes has been assessed within the available randomised trials. Instead, these trials have focused on outcomes at the organisational level and have not considered the intrapersonal and interpersonal levels of action of the intervention. Moreover, trials have not taken into account how the PAD was actually used, once completed.

Our main finding is that although the PAD was designed in the first place to enhance the user's autonomy, the many results collected strongly suggest that it produces its best results as a tool for improving the therapeutic alliance. First, as the authors of the

Cochrane systematic review stated, the best measured outcomes have been obtained with JCPs, where the document definition and content are negotiated among the user, clinicians, and third parties. Similarly, many studies show that f-PADs, where facilitation features are designed to assist users in completing the PAD, are feasible, respond to user's interest and needs, increase the rates of uptake and improve the working alliance.

Secondly, even if the PAD was designed in the first place to enhance user's autonomy, its endorsement by clinicians is decisive for its effectiveness. Studies indicate that the endorsement of the PAD is higher when mental health professionals are involved in producing the document, and that they are less likely to override the directives in such cases, especially in relation to treatment refusals. Indeed, clinicians are concerned with the possible consequences of refusals and this concern is lessened when other clinicians have been involved in completing the PAD document.

Thirdly, another decisive element in supporting the use of the PAD is the designation of a surrogate decision-maker. While this designation may produce conflicts in relationships and thus contradict the theoretical expectation of a therapeutic alliance improvement, it still indicates that the PAD is being used to facilitate relationships. Moreover, many users opted to designate their own physician as surrogate decision-maker, although that option is not allowed in many US States. All these elements indicate a PAD that aims to improve the therapeutic alliance.

The mixture of expectations makes the purpose of PADs unclear and may explain the low take-up rate. This has been mentioned as an operational barrier to their use (Van Dorn et al. 2008). The shape of the intervention at each stage relies on the clarification of these expectations. In terms of the definition of the PAD document, while evidence indicates that those types of PAD conceived in terms of therapeutic alliance are more feasible than the 'classic PAD', concerns have been raised about proscriptive PADs, as users may refuse treatments and the consequences of such refusal, as well as about possible conflicts arising from surrogate decision-making. However, these concerns can be addressed when a PAD is completed in consultation with health professionals within a therapeutic alliance framework. In terms of the completion of the PAD, a consensus may be reached among groups of stakeholders as to the information to include. However, the indiscriminate accumulation of information that could possibly be relevant for the three different frameworks can make the PAD document unusable, e.g. for preventing a crisis relapse, for managing the crisis in outpatient or inpatient settings, for planning in advance the organisation of care among clinicians during an emergency or for avoiding the resort to coercion. Finally, in terms of the access to the document and the honouring of its contents, very little has been investigated. The few available results are quite disappointing. More research is needed to determine how these later stages of the intervention could be implemented. For example, the actual role of a carer as a surrogate decision-maker at the honouring stage remains unclear. This may also depend on the adjudication between frameworks.

The realist systematic review is designed to examine what works, for whom, and how in a complex intervention, to test the integrity of the underlying theories, and finally to adjudicate between them (Pawson et al. 2005). However, our review indicates that there is no sufficient evidence available to allow us to understand the whole intervention, and therefore, that the evidence on how PADs should be implemented is still incomplete, as suggested elsewhere (Henderson et al. 2010). Further comparative studies will have to address the contextual issues of the intervention, for example, the care setting, or the whole care and legal system, in more detail. The shift from the framework of the user's autonomy to the framework of the therapeutic alliance might in fact be correlated with national characteristics of the mental health systems. Indeed, one limitation of our review is that the legal contexts underlying the whole intervention were not examined. Moreover, as a narrative method relating to a complex intervention, another major limitation is the lack of access to more informal and contextualised information about practical and relational elements of the intervention that are not reported in the formal scientific literature.

Therefore, we suggest that more research is needed among stakeholders to determine their theoretical expectations and preferences as to the implementation of a multistage intervention process. A stakeholders' analysis (Brugha & Varvasovszky 2000, Varvasovszky & Brugha 2000) would help examine the choices and possible differences between groups of stakeholders and determine a consensual scenario of PAD intervention. This type of analysis has already been carried out to determine models of PAD

documents (Atkinson et al. 2004), and should be extended to the whole intervention process, for example, the moment when and the care setting within which it should be proposed to the user, the process for its completion, and above all, the ways in which PAD documents are registered and disseminated, the conditions of access to their contents and steps to be taken to honour them. The feasibility of such a complete multistage scenario should then be tested by its actual implementation, and only at that point should a randomised trial be considered.

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II. Users' and health professionals' values in relation to a psychiatric intervention: the case of Psychiatric Advance Directives

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Abstract

Background: *Psychiatric Advance Directives (PADs) are documents containing plans for action to be taken during a crisis, based on patient's preferences. Their take-up rate remains low and their purpose unclear. Moreover, the use of PADs should be included in a comprehensive intervention process including three stages: the design, the completion, and the honouring of a PAD document. Much has been investigated about the content of PAD documents, but little is known about how to honour PAD statements when a crisis occurs. The endorsement of PADs by users and health professionals is decisive for their actual use; hence, understanding their preferred criteria is crucial.*

Objective: *The aim of this survey was to establish which value criteria determine the preferred options when employing PADs at each stage of the intervention.*

Methods: *A Multinomial Discrete Choice analysis was carried out on policy makers, health professionals, caregivers, and users' preferences for designing, completing, and honouring PADs, in terms of user autonomy, therapeutic alliance, care coordination, and feasibility.*

Results: *Although autonomy underlies the whole process, the criteria for choosing options varied according to the stage: alliance was more important at the completion stage, while coordination and feasibility gained importance at the honouring stage. There were no significant differences between groups of stakeholders.*

Conclusions: PADs are more likely to be employed if different value criteria are applied at each stage of the intervention. This approach could also be investigated for other psychiatric interventions.

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Disclosures

None for any author

Introduction

The use of Psychiatric Advance Directives (PADs) is an intervention for severe and chronic users, aimed at planning in advance action to be taken during a crisis relapse. It is centred on a document in which the user notifies his/her preferences for treatment and may appoint a surrogate decision-maker for the period of incompetence [1-3]. Despite equivocal results in their clinical evaluation [4;5], PADs should contribute to reducing the number of voluntary and involuntary hospitalisations and also improve compliance with treatment [6-8]. A literature review noted that several types of PADs had been implemented, with their effectiveness depending on the theoretical expectations underlying the intervention [9]. Although designed in the first place with a view to enhancing user autonomy, e.g. via facilitated PADs [10], the improvement of the therapeutic alliance and of the coordination of care were more likely to enhance the effectiveness of other variants, e.g. Joint Crisis Plans [4;11]. Another main finding of this literature review was that much has been investigated about the definition and content of the PAD document and how to draw it up, but very little is known about the honouring of PAD statements when the crisis occurs [9]. Their actual implementation is still an issue [12;13]. This could explain why rates of uptake of PADs have remained low regardless of their type.

The endorsement of PADs by users and health professionals is decisive for their actual use [1;14;15]; hence, understanding their

preferred criteria is crucial. Consequently, we carried out a Multinomial Discrete Choice analysis on stakeholders' preferences in order to elicit stakeholders' criteria for the implementation of PADs.

Method

Design

The study followed a literature review [9] and had two phases, which were carried out in Belgium between 2010 and 2011. Following the conclusions of the literature review, we considered that a PAD intervention includes, at a minimum, three stages: 1) the PAD intervention design, 2) the process of drawing up a PAD (completion), and 3) PAD access and honouring when a crisis occurs [16]. The first phase allowed us to identify the most important criteria for assessing the options for the implementation of variants of PADs and to validate the stages of the intervention. Focus groups were organised to explore the strengths and weaknesses of these variants of PADs. Six groups were organised, with a total of 51 participants: 4 groups with a total of 40 patients and 2 groups with a total of 11 health professionals.

On the basis of the literature review and the focus groups, four criteria were selected: 1) User autonomy, which was defined as the user's power and control over his/her choices for treatment,

medication, and the management of his/her health issues; 2) The therapeutic alliance, which was defined as the quality of the relationships between the user and the health professionals involved in his/her care; 3) The coordination of care, which was defined as the organisation of care continuity within or between crisis episodes; and finally, 4) feasibility, which was defined as the availability of the human, logistic, and funding resources required for the implementation of the intervention. Twenty possible options for PADs were eventually identified across the three stages (See Table 1).

Table 1 Options for the implementation of Psychiatric Advance Directives at the three stages of the intervention and stakeholders' preferences

Options for the implementation of PADs	Number of times chosen as best option per stage among stakeholders (n=102)
Stage A: PAD intervention design	
A1. The PAD is requested by the user	38
A2. The PAD is suggested to the user by a health professional	30
A3. The PAD is suggested to the user by a non-health professional (mediator, lawyer, sickness fund…)	3
A4. The PAD is suggested to the user by a user's advocacy association	1
A5. The PAD is drawn up by the user whenever he/she wishes it	11
A6. The PAD is drawn up at the hospital with the help of a health professional	10
A7. The PAD is drawn up in a community health service with the help of a health professional	9

Table 1 (Continued)

Stage B: PAD completion process	
B1. The PAD should include a brief chronological account of medical events	7
B2. The PAD allows the user to designate a reference person, a professional coordinating the honouring of the PAD statements in times of a crisis	26
B3. The PAD allows the user to designate a trusted nominee, professional or non-professional, who could support the user in times of crisis	27
B4. The PAD allows the user to explain his/her treatment preferences (medication, treatment locations, and health professionals)	18
B5. The PAD allows the user to refuse specific medication, treatment locations, or health professionals	4
B6. The PAD should include de-escalating or crisis prevention methods	20
B7. The PAD should include non-medical statements	0
Stage C: PAD access and honouring	
C1. The PAD document should be registered with health professionals, in addition to those who signed it	33
C2. The PAD document should be registered in a central database with secure access, in addition to those who signed it	19
C3. The honouring of PAD statements requires a coordination role (case-manager, reference person…)	29
C4. The honouring of PAD statements requires an evaluation of the patient's competence at the time of the completion of the document	1
C5. The honouring of PAD statements requires specific training for health professionals	19
C6. The honouring of PAD statements requires a financial incentive	1

During the second phase, a Multinomial Discrete Choice analysis (MDC) was carried out with 102 stakeholders involved in psychiatric care for severe and chronic illnesses (schizophrenia, major depression, and bipolar disorders). MDC analysis aims to score different options by several criteria, and to measure the influence of these criteria on the overall choices made. This approach has been used for manpower planning priorities [17], obesity prevention programmes [18], and health technologies [19].

Participants

For the survey, we considered four groups of stakeholders: 1) patients and representatives of users' associations; 2) health professionals, mainly psychiatrists, psychologists, and social workers in mental health; 3) caregivers, and representatives of family associations; and 4) policymakers and experts in the organisation of psychiatric care [1;16;20;21]. Stakeholders were selected according to their experience of psychiatry, involuntary commitment and PADs. The list was drawn up in three steps [22]: an initial set of names was identified by using national and official directories, including publications available on the web; this list was validated and complemented by a panel of experts; finally, snowball sampling was used to increase the sample size and diversity by asking interviewees to nominate influential or knowledgeable people involved in advance directives, patient participation, or involuntary commitment in psychiatry. Particularly, additional patients were recruited through snowball sampling from the representatives of user's and family associations contacted

initially. One hundred and thirty-eight stakeholders were eventually identified and contacted, of whom 102 agreed to participate (see Table 2): 25 stated that they did not have time, 5 did not feel they had sufficient expertise, 2 were unreachable, and 4 respondents did not completely fill in the questionnaire and were rejected.

Table 2 Characteristics of stakeholders interviewed

Groups	N (total=102)
Policymakers	23
Health professionals	32
Family and caregivers	20
Patients	27
Language	
Dutch	49
French	53

Survey format and measures

Trained interviewers conducted the survey. Each interviewee was presented with a set of twenty PAD options and was asked to score each option on a scale ranging from 0 (performs very poorly) to 10 (performs very well), for each of the four criteria (user autonomy, therapeutic alliance, coordination of care, and feasibility). In addition, interviewees were asked to choose one most favoured option within each stage of the intervention (design, completion process, access and honouring). Information on socio-demographic

status and experience with psychiatry was also collected. Data were collected between March and July 2010.

Statistical analysis

The decision-making process of stakeholders, i.e. their identification of the best option at each stage, was modelled with the help of conditional logit. This method is appropriate for determining the effect of both the criteria and individuals' characteristics on decision-making [23]. It also captures the non-independence of the 20 observations related to the same respondent. We built three models: the first model includes the four criteria at the three stages of the intervention; the second model is stratified by stage; the third model, finally, investigates interactions between criteria and individual characteristics that were more likely to predict preferences (stakeholder group and experience with psychiatry and involuntary commitment, either as a professional or as a patient). Statistical analysis was carried out with SAS 9.2.

Results

At the first stage of the intervention, PAD design, two options stand out: "the PAD is requested by the user" and "the PAD is suggested to the user by a health professional" (Table 1). Conversely, there was very little support for "the PAD is suggested to the user by a

non-health professional" or "by a users' advocacy association". At the second stage, PAD completion, the two preferred options involved the designation of a third party, either a reference person to coordinate the action to be taken or a trusted nominee to support the user during the crisis. The least supported options were the inclusion of non-medical statements and the right to refuse treatment. At the third stage, PAD access and honouring, the most supported options were the registration of the document with health professionals and the requirement for a coordination role to implement the statements. Assessment of the user's competence when the PAD document is being drawn up and financial incentives were the least supported options.

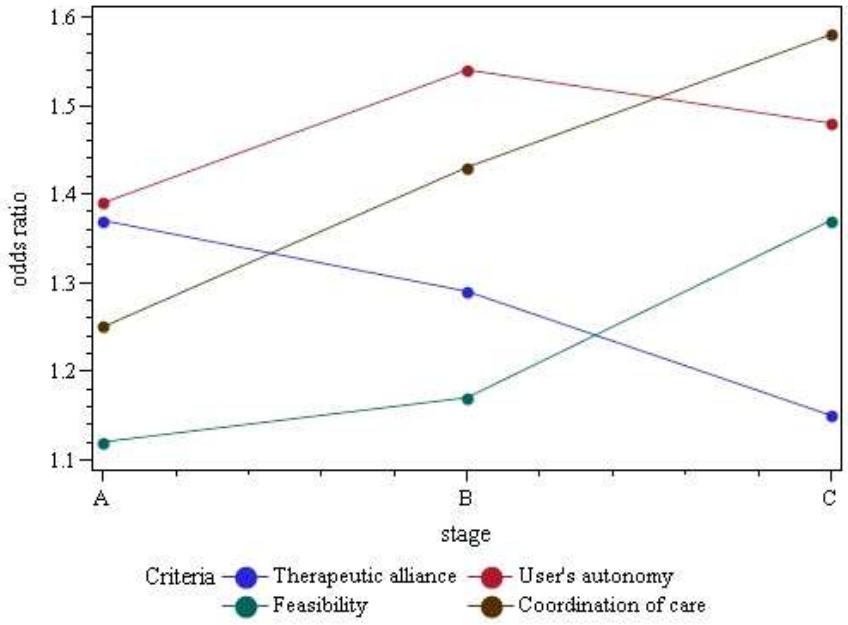
All attributes had significant and positive values for their effect on the choice of PAD options; the criteria of user autonomy and the coordination of care had more effect on choices than the criteria of therapeutic alliance and feasibility (OR>=1.38 vs. OR<=1.27, see table 3). User autonomy was an important criterion across the three stages. However, the other three criteria had different effects according to the stage. Coordination of care turned out to be an equally important criterion at the PAD completion and PAD access and honouring stages. Feasibility, which had a low effect on choices in the first two stages, turned out to be more important at the last stage. Conversely, therapeutic alliance appeared to be less important in the third stage as compared to the first two stages.

Table 3 Effect of criteria on the choice of PAD options: conditional logit models, odd ratios per stage of the intervention

Criteria	OR		Log Likelihood	R-square pseudo	N
Overall intervention					
User autonomy	1,46	(1,31-1,63)***	-582,80	0,19	2040
Therapeutic alliance	1,27	(1,13-1,44)***			
Coordination of care	1,38	(1,22-1,57)***			
Feasibility	1,19	(1,07-1,32)***			
Stage A: PAD design					
User autonomy	1,39	(1,16-1,65)***	-153,91	0,22	714
Therapeutic alliance	1,37	(1,12-1,68)***			
Coordination of care	1,25	(1,03-1,51)**			
Feasibility	1,12	(0,95-1,31)ns			
Stage B: PAD completion					
User autonomy	1,54	(1,25-1,90)***	-157,86	0,20	714
Therapeutic alliance	1,29	(1,04-1,61)**			
Coordination of care	1,43	(1,12-1,82)***			
Feasibility	1,17	(0,99-1,39)*			
Stage C: PAD access and honouring					
User autonomy	1,48	(1,20-1,82)***	-115,02	0,37	612
Therapeutic alliance	1,15	(0,93-1,42)ns			
Coordination of care	1,58	(1,23-2,02)***			
Feasibility	1,37	(1,10-1,70)***			

Figure 1 illustrates the changing importance of the four criteria across the three stages.

Figure 1 Variation of odd ratios of criteria per stage of the intervention



Odd ratios estimated from conditional logit model including robust errors.

Chow Test = 89.78 p<0.0001 – This test was calculated based on model 2. It allows us to split the sample by stage.

Finally, we tested whether criteria had different effects on choices according to stakeholder group (patient vs. non-patient), and according to experience with psychiatry and involuntary commitment, either as a professional or as a patient. Although patients tended to attribute less importance to feasibility (OR =

1.06 vs. OR= 1.25; p=0.16) and to autonomy (OR=1.36 vs OR =1.50, p=0.50) than non-patients, these differences were not statistically significant.

Discussion

Main findings

We found that options for employing Psychiatric Advance Directives were chosen according to a complex blend of criteria that varied according to the stage of the intervention. At the design stage, options for PADs should perform well both in terms of the criterion of user autonomy and that of the therapeutic alliance. At the completion stage as well as at the access and honouring stage, coordination of care becomes is one of the two most important criteria with user autonomy. Feasibility also appears to be an important criterion at the access and honouring stage. Interestingly, the two preferred options at the completion stage concerned the designation of a third party to help drawing up the PAD, and a coordinator (such as a case-manager) is the second most frequent option at the access/honouring stage. This result could be related to the function of surrogate decision-maker, which is the function most used in PADs in the USA [9;14;24]. Coordination of care appears to be decisive for the implementation of PADs.

The value criteria highlighted in our study are quite consistent with previous studies [12]. Henderson carried out a Delphi study with 55 experts (users and non-users) of several options and procedures for implementing PADs. Stakeholders in two different organisational and study contexts may differ in their views about some practical options. However, in Henderson's study, experts strongly agreed that users' choices should drive the way the overall intervention is implemented. Moreover, they underlined the importance of the therapeutic alliance when drawing up a PAD document. For example, they stressed the need for users to be assisted in drawing it up properly and stated that all persons involved in the care of a user should take part in the discussion of its content. Finally, it was more difficult to reach a consensus among experts when it came to accessing PADs; lack of communication and lack of coordination of care, however, were mentioned as major barriers to accessing and honouring PAD statements and training was requested in relation to this stage.

Limitations

The validity of a Multinomial Discrete Choice survey (MDC) depends on the participants' understanding of the choices they have to make, as well as on their understanding of the criteria suggested. Internal consistency was assessed by checking whether participants had chosen the options for PAD implementation with the highest overall scoring (by adding up the scores for all four criteria). Overall we found a Spearman correlation of -0.76 ($p<0.01$) between the score for PAD options and its ranking (the

lower the better), suggesting that choices were related to the overall perception of option performance. We also assessed the external validity by comparing the expected values for answers across the stakeholder groups. We expected that policymakers would be keener on the criterion of feasibility, health professionals on therapeutic alliance, families and caregivers on coordination of care, and patients on their autonomy. It turned out that no difference was found between patients and non-patients on autonomy, contrary to expectations. Two factors may explain this unexpected result. First, the non-patient group was somewhat heterogeneous, as it included health professionals, caregivers, and policy-makers. Second, within-stakeholder group variance was shown to be as important as between stakeholder groups variance [25;26]. This could be due to socio-demographic characteristics [27], or to stakeholders supporting a more pluralistic blend of values in priority setting [28].

Conclusions

Our findings could help to facilitate the implementation of complete PAD interventions and make them more attractive. Indeed, the results indicate the consensual value criteria that should drive the choice of option for implementation at each stage of the process. Although user autonomy remains the primary value of the intervention, PADs are more likely to correspond to the needs of users and to be endorsed by health professionals, families, and policy-makers if the therapeutic alliance is taken into

account at the stage of PAD design, whereas the importance of coordination of care and feasibility in driving choices grows at the completion stage and at the honouring stage. This value process is also illuminating for psychiatric health services managers. Indeed, although shared decision-making in treatment and user accountability for and involvement in treatment are widely acknowledged as elements of good practice in all fields of health care, these elements are difficult to include in mental health care. By separating the moment of negotiation, the moment of decision, and the moment of implementation of a psychiatric intervention, the case of Psychiatric Advance Directives reveals a model of interaction between stakeholders that could be validated for other interventions in psychiatry: negotiation should rely on therapeutic alliance principles and implementation should take into account feasibility and the improvement of coordination of care.

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"Can a blind man lead a blind man?
Will they not both fall into a pit?"
Luke 6:39

Chapter V
Conclusions and Discussion

1. General conclusions

Networks of mental health services have often been suggested as a tool for the organisation of integrated care delivery in the community [1-6], i.e. the provision of continuity of care, meeting users' complex needs within a care supply that maintains them in their social environment. However, such networks are complex and remain very challenging to describe and assess. There are several approaches to networks (as a structure of inter-organisational contacts and exchanges, as a series of processes of collective action, or as an outcome resulting from collective action) and they have multiple domains of action (users and their social environment, services, whole network and mental health care

system). The approach we chose to take stresses that the structure of relations between health providers within a network of care delivery determines their processes of collective action and, therefore, the potential outcomes resulting from those interactions.

In Chapter 2, we assessed the structure of relations between services in two socially deprived areas of Brussels and London. Social Network Analysis (SNA) metrics were applied to routine team meetings and referrals to describe and assess inter-organisational collaboration and the integration of the care provided by mental health and social care services. Both networks showed weak levels of integration, particularly for direct contacts between mental health services on the one hand and social care services on the other. These results could explain why fragmentation between mental health and social care services remains an important issue in both countries, regardless of the major differences in their mental health care policies. Moreover, the results indicated that the network studied in Brussels was more centralised than the network studied in London, whereas the network in London was denser than the network in Brussels. These results are consistent with previous research, which reported a conflict between density and centralisation within mental health services networks [3;7;8].

It has not been possible within this study to relate those different network structures to users, services, or system characteristics and explain the phenomena depicted. However, these networks of relations, which result from the interaction of health providers, are very different from what might have been expected of care delivery

policies in both countries. Indeed, the English care system is characterised by a territorial organisation of primary care delivery. The primary care system plays a gatekeeping role in deciding access to specialised care, e.g. mental health care, which requires a referral from a GP. Health care and social care are separated, although local joint working arrangements may exist [9]. On this basis, we would have expected to find a centralised pattern of relations between the mental health and social care clusters of services. By contrast, the Belgian care system is characterised by the principle of therapeutic freedom, which in practise means the freedom of users to choose their health providers, regardless of regional or referral criteria. Moreover, most community mental health services were funded and organised by the same authorities as many of the social care services included [10]. On this basis, we would have expected less centrality and more density of contacts. This could suggest that without a formal organisation of the referrals between services, the agencies offering a complementary service are not well identified, and hence, a small number of services concentrate the circulation of users. Anyway, these results confirm that there exist different patterns of network structure, which may differ from policy plans, and that networks of services do not automatically result in more integrated care.

In Chapter 3, we investigated the expected outcomes that should result from a mental health care delivery reform that relies on networks of services. The reform aims to simultaneously strengthen community care and improve integration of care. The theory underlying the programme of the reform attempts to strike a

balance between hospitals and community services. It suggests up to seventeen different aims and intermediate goals at different levels of action: users, service, and system.

However, based on previous research into inter-organisational networks, it is unclear whether it is possible to address those multiple aims simultaneously or at least within a single network structure. Indeed, some of those aims oriented towards more deinstitutionalisation would require a network structure with a high density of connections between services, low centralisation, and a shared governance model. By contrast, other aims oriented towards more integration of care would require a much more centralised network structure, with a low density of connections and a strong leadership. Previous research indicated that these two types of network structure cannot be maximised at the same time [3;7;8].

Furthermore, the programme theory of the reform suggests several mechanisms and tools with a view to achieving those aims and objectives, such as introducing network coordinators, care functions, and mobile care teams and reallocating hospital funds to networking. These mechanisms fall under the responsibility of the hospitals. Hence, although the programme for care delivery would restrict the role of hospitals to the most acute care, the programme for network organisation is very likely to strengthen their centrality and leadership. There is thus a potential clash between the structure of clinical relations, such as referrals and the exchange of information about users between services, and

the structure of organisational relations, such as involvement in network management or the exchange of resources.

These elements, along with local characteristics at the level of users and services, could lead to a diversity of network structures and types of governance. These differences mean that it is likely that some networks will give priority to care in the community while others will give priority to care integration. It was suggested that these different types of networks correspond to the needs of different types of users, depending on the severity and complexity of their disorders [11]. Consequently, all types of needs might not be addressed within one single network structure. Such differences could weaken the effectiveness of the reform in overcoming the tension between community care and integrated care.

Finally, in **Chapter 4,** we explored the process of integrating care at the level of users and investigated a tool for advance care planning: Psychiatric Advance Directives (PADs). Despite many expected benefits, the take-up rate of PADs has remained low. Results indicate that a PAD intervention is more efficient when sustained by a good therapeutic alliance, particularly in the early stages of the intervention. A therapeutic alliance affects the quality of the relation between users and clinicians and the relational dimensions of continuity of care: individualised care, flexibility, communication, and experienced continuity [12;13]. Moreover, care coordination appears to be a major criterion for the actual use of PAD instructions when a crisis occurs. Thus, although designed

in the first place with a view to sustaining the user's autonomy, PADs could serve more effectively as a tool to, firstly, improve the quality of the clinical relationship between users and clinicians and, secondly, organise the coordination of care centred on the user's needs. This would be consistent with the significant positive results obtained with Joint Crisis Plans. Indeed, this type of PAD is drawn up in a negotiated process between the user and the health professionals.

As far as the delivery of care within networks of services is concerned, these results highlight three important considerations. Firstly, there may be a difference between the network structure needed to ensure continuity of care within the user-clinician relation and the network structure needed to achieve cross-sectional and longitudinal continuity of care within health professionals' relations. The former structure should produce adapted, flexible, and individualised care. Decisions on treatment should be shared between clinicians and users within processes of negotiation. To some extent, the user should determine him/herself the structure of contacts with the health professionals around him/her. Conversely, the latter structure should be sufficiently planned in advance and responsive to the needs of the user when he/she is unable to manage treatment decisions on his/her own. It should be formalised and internalised by health professionals, according to the dimensions for collaboration identified by D'amour [14]. Secondly, the structure of relations between health professionals may also differ according to the stage of a treatment intervention: although the user should be able

to determine the structure of contacts with health professionals around him/her at the time of care planning, these health professionals should then be able to organise their contacts and communication about the user when the care plan is being implemented. Finally, the results of the study indicate that a patient-centred intervention that aims to ensure overall continuity of care and sustain the patient's autonomy requires both a good level of therapeutic alliance at the level of the user and a good level of coordination of care at the level of health professionals.

2. Discussion

2.1. Network structure and levels of care integration

Across those different studies, numerous factors were therefore identified that may affect the global shape of networks of mental health services and could consequently affect their capacity to address their multiple aims. Firstly, there can be **multiple patterns of ties** within networks; at least, a model favouring linkage between services and relying on a high density of connections, and a model favouring the coordination of services and relying on a high degree of centrality of some services. These different patterns had previously been identified and were considered to be in conflict [3;8;11;15]. According to Leutz, these models would correspond to the needs of different types of users and would also correspond to different policy operations at the system level. Moreover, according to Provan and Milward, these two models would also be better

adapted to different modes of governance (shared governance or lead governance), levels of trust between network partners, numbers of participants, levels of consensus on goals, and needs for network-level competencies [15]. Consequently, the combination of care integration with care in the community would require different patterns of relations within networks, corresponding to differences at the user, network, and system levels. In other words, it does not seem possible to provide care integration for all types of users or to carry out all types of policy operations (e.g. supporting early detection and prevention programmes, screening pathways of care for patients, or centralising funding) within a single pattern of relations between services [11]. This raises an important issue about the adaptability of a care delivery system to the individual situations of its users, particularly in mental health. On the one hand, users' needs are endlessly variable: mental disorders engender specific clinical pictures for each individual patient; users simultaneously face multiple needs that are different in nature (i.e. psychiatric, physical, social, relational); and these needs may change dramatically over time. On the other hand, the care system needs stability and standardisation of delivery practices, pathways of care, and possibly funding mechanisms. Despite the expectations of many policymakers that the network type of organisation would provide enough flexibility for users' needs and simultaneously enough stability for system requirements, our results suggest that these issues cannot be solved with a single network model. Consequently, a network of health services does not, in itself, seem to solve either the policy challenge of giving priority to the

therapeutic aims of a care system, i.e. the highest quality of care for users, or its public policy aims, i.e. the greatest degree of equity and the broadest coverage of the needs of the whole population.

2.2. Clinical versus organisational relationships

Secondly, differences in patterns of ties may be observed in **different types of relations** between services, mainly in regard to **clinical relationships** (such as referrals and the exchange of information about users) **as opposed to organisational relationships** (such as involvement in network management and the exchange of resources). Provan, Milward, and their colleagues emphasised the importance of *multiplexity* for the stability of networks, i.e. the involvement of services in several sets of ties at the same time [16]. They also stated that network effectiveness measured at the level of users was positively related to the integration of small *clique*s of services that have overlapping links through referrals and case coordination [17]. However, they did not consider the effects of major differences in simultaneous patterns of ties in clinical and organisational relations. In their studies, these two types of relations had consistent patterns [18]. By contrast, we might expect such a conflict in the networks of mental health services planned within the Belgian reform, particularly in relation to the role of hospitals. This could affect the effectiveness of those networks in achieving care integration in community-based settings. We suggest that there should be some consistency between the structures of clinical and organisational relationships within networks in order to effectively deliver integrated care in

community-based systems of care. How this consistency could be achieved remains to be studied.

2.3. Network governance and balance of power

Thirdly, the previous statement on differences in patterns of ties according to the type of relations involved indicates that the shape of mental health service networks may be affected by the **balance of power** within the various relationships existing between services [8]. This issue has been under-explored in the study of mental health service networks.

Power is one of the intangible means that circulate within networks [19] and is, according to Provan & Milward, a critical issue for network governance, legitimacy, and stability [15]. They identified three basic tensions that were inherent to network governance, in which management is critical for network effectiveness and sustainability. The first tension is between **efficiency and inclusiveness.** Efficiency refers to the capacity of the network's governing body to set clear directions for goals and activity. Inclusiveness refers here to the capacity of the network's governing body to retain its members. The need for administrative efficiency in network governance, which is consistent with the key dimensions for collaboration identified by D'Amour [14], may cause conflicts with members who disagree with decisions. Those members may threaten to quit the network and hence disrupt its stability. The second tension concerns the source of legitimacy of power: **internal legitimacy versus external legitimacy**. Most

networks in the human sector are purposely mandated by public authorities. Thus, although a part of the legitimacy of a network's leaders relies on the trust of its members, another part of their legitimacy relies on the mandate and resources coming from the public authorities. Hence, the balance between network members' aims and policy aims is also a source of instability. Finally, the third tension is between **a network's need for flexibility and its need for stability**. Indeed, the organisational form of the network was specifically chosen for its flexible characteristics. However, the instability of a network over time is one of its greatest weaknesses. This tension between flexibility and stability is, accordingly, detectable in the user and system outcomes expected from mental health service networks as well as in their governance characteristics. These three tensions in network governance may have a major effect on the capacity of mental health service networks to combine their multiple aims.

Particularly in Chapter 3, we saw that most arguments used in the blueprint for the current Belgian reform refer to several power balances: between the influence of hospitals and the influence of community services on the one hand; between users (demand for care) and health providers (supply of care) on the other. Behind these balances of power at the user and service levels stands a third power struggle between the federated entities, which are mainly responsible for community services, and the federal state, which is responsible for hospitals and intermediate structures. Beyond the three major threats to the effectiveness of the reform identified in Chapter 3, a fourth threat may, accordingly, be

identified: that network development and governance may be driven by struggles for power between different interests rather than by considerations of the quality of care and concern for the users. It is known that the field of mental health care delivery is one with numerous ideological cleavages and private interests [20-22]. The Belgian mental health care system is characterised by the high level of fragmentation of the whole society into linguistic and cultural communities and by neo-corporatist mechanisms for decision-making. In this specific context, the ideological divisions of the psychiatric field are compounded by linguistic divisions and to some extent, by the divisions between the traditional "pillars" of Belgian society [23]. Although there is no formal evidence, it is very likely that the policy blueprint for Belgium's reform of mental health care delivery is based on compromises between some of the major interest groups of that share decision-making powers in the field. For example, the funding mechanism at the core of the reform, based on the reallocation of funds for long-term beds to networks, is particularly well adapted to the situation in Flanders, where many huge psychiatric hospitals with such long-term beds remain. The goal of strengthening community care and simultaneously improving care integration may be the result of negotiations as a result of which the power of those psychiatric hospitals would be reduced in return for giving them more influence over community-based services by intensifying their role in network governance.

In further developments of this reform, we may expect that either the influence of psychiatric hospitals over community services will grow within centralised patterns of relations and a lead model of

network governance, or that mental health service networks will be at risk of dissolving while trying to maintain horizontal relationships and a shared model of governance. One way of overcoming this pitfall might be to implement "Network Administrative Organisations" for network governance that include representatives of the main types of services, in order to achieve more stability. Another factor that could play an important role in network development is that most of the mental health services that currently fall under the responsibility of the federal authority are due to be regionalised within three years. This is likely to affect the shape of mental health service networks, as all types of services will fall under the responsibility of the same level of authority. On the one hand, it is highly probable that networks will evolve differently in each region. On the other hand, this could produce more coherence in local mental health policies and in the guidelines laid down by the authorities.

While these political circumstances may greatly affect the shape of mental health service networks, they are not focused on users' needs, and cannot help to decide how such networks should provide more integration of care in community-based settings. Moreover, the results presented in Chapter 2 indicate that there may be a **difference between the structure of a network of services as formally defined in policy plans and the structure of the actual flow of collaboration** between services. The description of the comparative study of networks in Brussels and London showed that a network of regulated referrals based on a gatekeeping role may lead to a higher level of linkage between services, whereas an

informal network may lead to a more centralised pattern of relations.

2.4. Clinical relationships with users and third parties

Finally, our results indicate that there can be a **conflict between the structure of user-clinician relationships and the structure of relationships between clinicians** in relation to the different dimensions of care integration, i.e. the cross-sectional, longitudinal, and relational dimensions [12;13]. As we have already mentioned, user-clinician relationships have to be continuously adapted to the evolving situation of the user, including his/her capacity for self-direction, his/her multiple disorders and needs, and the stage of the intervention he/she is involved in, while relationships between clinicians may require a higher level of formalisation and internalisation, regardless of the characteristics of the individual user [14].

It is noticeable that most stakeholders in psychiatry (i.e. clinicians, users, carers, and policymakers) point to the need for a third party to balance relations and eventually solve this conflict. In Chapter 2, our results indicated the importance of brokerage in organising network structures. In Chapter 3, the implementation of a case-management role was suggested as a tool to facilitate care integration in community settings. And in Chapter 4 particularly, most stakeholders interviewed chose the designation of a trusted nominee or reference person as their preferred option for the implementation of PADs and emphasised the need for a

coordination role to effectively honour PAD statements. These results have to be related to the observation of D'Amour and colleagues, who stated that collaboration involved dividing responsibilities differently between health professionals and entailed changes in clinical practice [14]. The statement could obviously be extended to the user him/herself and his/her carers.

Thus, a network approach to mental health care delivery is likely to alter professional identities and rearrange the relationships between clinicians and between clinicians and users. Overall, the role of psychiatrists is expected to change. Traditionally, the psychiatrist had to diagnose disorders and subsequently deliver appropriate medication. However, the numerous changes in mental health care delivery over recent decades, embodied in the simultaneous quest for community care and care integration, have dramatically extended the range of society's expectations of psychiatric professionals [24]. On the one hand, many medication interventions, particularly routine medication delivery for chronic patients, have been devolved to psychiatric nurses in many care systems [25-27]. This shift was even at the origins of the community approach to mental health care [28]. On the other hand, there have been two other major demands made of psychiatrists: a greater commitment to the personal development and demands of users, and more coordination and managerial expertise within large provider organisations such as mental health service networks [24]. In community-based mental health care delivery systems where care is delivered by a range of specialised services, e.g. early intervention, home treatment, and crisis teams,

the psychiatrist may in future be increasingly called on to carry out specific case-management tasks, i.e. care organisation and adaptation to the expressed needs of the patient. The therapeutic alliance between the psychiatrist in this upgraded role, the user, and his/her carers, thus appears to be critical to the articulation of community care and care integration. Indeed, the involvement of the user and his/her carers in treatment decisions and a thorough knowledge of the availability of care resources may be a decisive element for this articulation. Reluctances on the part of health professionals, and psychiatrists in particular, to make this shift may also affect the capacity of network-based care delivery to effectively provide integration of care in the community.

3. Limitations and perspectives

3.1. Epistemological approach

To address our research topic, we opted for a structural functionalist approach, which tends to examine its objects of study from a global perspective and macro-level point of view. It is also based on the postulate that society and organisations are complex systems whose interacting parts, which may face tensions and conflicts at the micro level, eventually produce stability at the macro level. Structural functionalism has often been criticised for favouring formalism and a certain level of abstraction instead of looking at concrete phenomena. In our case, however, taking this option may be justified by reference to a number of factors.

First, beyond local and contextual elements, similar issues arise in very different mental health care delivery and welfare systems. Hence, these issues cannot be explained only by contextual characteristics and require a more formalistic approach. For example, the "Robert Wood Johnson Foundation Program on Chronic Mental Illness" in the USA [3] aimed to introduce networks of services to improve the coordination of care, ensure continuity of care, create a flexible financing system where funds could be moved to meet user needs, develop new services for chronically mentally ill users, and enhance psychosocial and vocational rehabilitation programmes. These objectives were adopted in order to deal with problems that resulted from the earlier "Community Mental Health Centers" programme, which had led to care fragmentation and also to conflicts of authority between states and the federal authority. These elements are remarkably similar to the contextual factors that motivated the Belgian reform presented in Chapter 3, despite tremendous differences between both the political and welfare contexts. We needed to figure out a way to compare those mental health care delivery systems despite their different contextual characteristics.

Furthermore, we observed that community care and integrated care were properties that emerged from a whole care delivery system. Indeed, the complexity, severity, and chronicity of the cases considered require multiple interventions by several health providers, simultaneously and successively. Consequently, those two outcomes depend on several agent interactions and could not be inferred only from individual agent behaviours, attitudes, and

actions. We thus needed an approach that considered outcomes at the macro level and prioritised elements of cohesion over elements of internal conflict.

Finally, issues of care integration and continuity of care in community settings are not specific to the mental health care context. Many long-term, chronic, and complex diseases require keeping patients in their living environment to maximise their quality of life, but also require assistance from different health and social care providers. This is, for example, the case for many disabled people, for several pathologies that require primary and secondary care at the same time, and in general for the elderly. Here again, we needed an approach that went beyond each problem's specific characteristics.

Nevertheless, the approach is subject to other limitations and criticisms. On the one hand, a substantial part of the literature on psychiatric and mental health care organisation has focused on its socio-historical and political backgrounds to explain its internal dynamics. Indeed, most policy reforms of health care delivery and welfare systems, particularly in psychiatry, have been ideologically and politically motivated. Psychiatry is a traditional field for ideological struggles, from Foucault to Scientology and psychoanalysis, anti-psychiatry, and mind oppression in totalitarian regimes. Within the narrower scope of this thesis, the development of community care in mental health [28;29], the "Robert Wood Johnson Foundation Program" on care integration [3;30], Thomas Szasz's "Psychiatric Will" proposal [31], the political background to

the Belgian mental health care delivery reform [20;32;33], and many other works that advocate service networks are clearly oriented by important political motivations. The importance of a broader sociological, economic, or political context for the organisation of mental health care delivery should not be neglected. The structural functionalist approach is not sufficiently able to take into account either those broader contexts or local factors and internal dynamics related to specific contexts, such as those mentioned in the discussion of the Belgian mental health care delivery reform. However, a complex topic such as mental health service networks, which includes so many different levels of action, cannot be studied from a holistic perspective that would explain all these levels at the same time. From a public health perspective, we gave priority to understanding how effective organisation of care could meet the various needs of users, services, and care systems, instead of emphasising broader sociological and political motivations.

On the other hand, structural functionalism has also been criticised for favouring conservatism, i.e. normative considerations on system stability and equilibrium, and neglecting processes of change. It is beyond the scope of this dissertation to open a debate on the philosophy of science. However, it is our ambition to produce scientific knowledge and thus to contribute to the discussion in this field of public policy and to the effectiveness of mental health care delivery. The researcher is him/herself one of the stakeholders interacting with users, carers, health providers, and policymakers. We hope that this research will have an

influence on future developments in mental health care delivery policies and practices, at least through criticism by other stakeholders. Accordingly, our approach cannot be regarded as excluding processes of change, nor can it be considered as favouring stability and conservatism.

3.2. Methodological issues

We used diverse methods according to each research question addressed. Probably the most innovative method in the field of Mental Health Services Research was Social Network Analysis (SNA). This seemed to be a useful tool for the assessment of network structures, particularly at a whole-network level of analysis. As a structural and formal approach, this method made it possible to compare the structures of networks regardless of contextual factors, e.g. policy and welfare systems, and of normative considerations on how a network ought to be structured. It also revealed network structure to be a property that emerges from agency interaction. This global structure could not be inferred from measurements at the level of individual attributes. Moreover, SNA appeared to be a tool that could help network managers and policymakers to monitor the evolution of network structures and establish priorities for the development of care integration.

However, in addition to the classic limitations of SNA presented in Chapter 2 (network boundaries, node and relation definition, sampling, nominative data, period of reference, and interrelated measurements), we have to mention that reliable data collection is

a complex task to carry out. Particularly as regards interagency connections: most service contacts are not registered and rely on information conveyed during interviews. Provan & Milward faced similar issues while collecting their data [7;16]. Our results should make clinicians, service and network managers, and policymakers aware of the value of registering such contacts and referrals in continuous data collection systems in order to gather reliable data on network development, which could easily be correlated with user and service information.

3.3. Unaddressed issues

The findings presented in this thesis have numerous limitations. Obviously, as mental health service networks are multidimensional, many fields of research have not been addressed. Referring to the typology of dimensions presented in Chapter 1, which considered three domains of action of networks (user, service, and whole network), and three approaches to networks (taken as structures, processes, or outcomes of collaboration), we defined nine fields of interest for their study. However, we have only addressed three of those nine possible fields. The remaining six fields also raise important questions. For example, the vast scientific literature that has looked at the structure and processes of inter-organisational networks [8;19;34-36] has focused on several topics, such as the stability and evolution of network structure over time, the optimal size for communication efficiency, learning, the diffusion of innovative practices, and so forth. These questions are surely also of interest

in the field of mental health care delivery, e.g. as regards the registration of information in collaborative contexts, the exchange of health practices, training, and inter-professional collaboration. However, we did not address them.

Another dimension that was not addressed in this thesis is the structure of health provider networks at the user level. Although the study of Psychiatric Advance Directives emphasised the importance of the user-clinician relationship and of care coordination centred on the user's needs, we did not further examine the structure of the user's social support network or the ways in which patients use services and themselves produce continuity/discontinuity of care. That dimension would probably fruitfully complement our study as regards user autonomy, users' involvement in their own treatment, and experienced continuity of care.

The internal processes within networks of services were not examined either. We have mentioned the ten dimensions identified by D'Amour that facilitate collaboration in health care [14]. Although our findings contribute to a better understanding of some of those dimensions (mainly centrality, connectivity, goals and, to some extent, formalisation tools), the remaining dimensions were not addressed, e.g. support for innovation, shared vision, mutual acquaintanceship, or trust. As we relied on a structural approach, we were not able to investigate the content of relationships between health providers and the conditions for their development.

Finally, the effects of mental health care delivery networks on their major expected outcomes still remain beyond reach of assessment. This is the case of outcomes at the user and service levels, such as effective continuity of care, quality of care, effective recovery, social integration, treatment accessibility, and care adaptation. However, our findings suggest several new explanations for the failure of previous research to measure a robust correlation between system integration processes and outcomes at the level of the user, particularly in terms of the structural conditions required to effectively articulate community care and care integration.

3.4. Perspectives

Despite their many limitations, the findings of this thesis have opened up new perspectives for further research. Among these, the use of in-depth SNA metrics should be correlated in the future with measures of outcomes at the user, service, and system levels. The Belgian mental health care delivery reform (Chapter 3) is currently being implemented and a large scale evaluation of the reform is being carried out. As part of this evaluation, data are being collected on ten experimental networks of mental health services that include from 15 to 148 services, as well as on their users. On the one hand, contacts declared between services in terms of two clinical relations (referrals sent/received and information exchanged on users) and one organisational relationship (joint participation in network management meetings) are to be analysed with the help of SNA metrics. On the other hand,

the data on users include: socio-demographic data, symptoms, social integration, use of services, and continuity of care. This large-scale research setting will make possible measures that correlate network structure with data on users and individual service organisation. Furthermore, the setting will make possible longitudinal and cross-sectional comparative analysis within and between networks. We indicated in the ex ante evaluation of the reform several threats to its effectiveness, and anticipated possible outcomes as regards differences in the structure of networks, network governance, and the ability of networks to provide integrated care appropriate to the characteristics of different target groups of users or different local contexts. This large-scale study is, thus, an opportunity to assess those multiple hypotheses.

Another research project is being planned for the near future, which will look at the implementation and evaluation of Psychiatric Advance Directives based on the results presented in Chapter 4. During a randomised trial, data on user autonomy, therapeutic alliances, and continuity of care will be collected, in order to correlate the expected effectiveness of the PAD intervention (in terms of reduction of hospital admissions and stays) with its potential explicative mechanisms. If PADs prove to be effective within one of these dimensions, they could contribute to significantly improving the capacity of care systems to provide more care integration in community settings.

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Mental Health Service Networks

Mental health care delivery systems are attempting to strengthen the care supply within users' social environment (community care) and simultaneously to reduce the fragmentation of care delivery (care integration). Fragmentation particularly affects severely and chronically mentally ill patients with multiple and complex needs. These two aims may, however, appear to be in conflict, as fragmentation has been shown to be greater in community-based models of care.

Mental health service networks have often been identified as an effective way of overcoming the issue of care fragmentation in community-based care systems. However, it remains unclear how networks should be designed and governed to address this specific issue.

Our approach assumes that the structure of relations within service networks influences processes of collective action and outcomes at the user, service, and whole network levels. In three studies, we examined patterns of clinical and organisational relations between services, a tool for integrating care at the user level, and policy expectations in relation to care delivery networks. The research indicates that community care and integrated care require different patterns of relations between services, and in particular a model that favours density of ties or a model that favours the centrality of a specific agent. Moreover, there may be a conflict between clinical and organisational relationships, as well as between the needs of users and of the health system

Understanding these key factors may help to improve the organisation of mental health care delivery. They also suggest new perspectives in mental health service research and suggest tools that managers and policy-makers could use to monitor the implementation of service networks.

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