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Developing and modelling complex social interventions: introducing the Connecting People Intervention

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Keywords: intervention research; social capital; social networks; intervention modelling; mental health social work

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Abstract

Objectives: Modelling the processes involved in complex social interventions is important in social work practice as it facilitates their implementation and translation into different contexts. This paper reports the process of developing and modelling the Connecting People Intervention (CPI), a model of practice which supports people with mental health problems to enhance their social networks.

Method: The CPI model was developed through an iterative process of focus group discussions with practitioners and service users, and a two-stage Delphi Consultation with relevant experts.

Results: We discuss the intervention model and the processes it articulates to provide an example of the benefits of intervention modelling.

Conclusions: Intervention modelling provides a visual representation of the process and outcomes of an intervention which can assist practice development and lead to improved outcomes for service users.

The development and evaluation of complex social interventions in social work can be a lengthy process, particularly if conducted with a view to generating high-quality evidence of their effectiveness. The process is largely sequential, moving from one step to the next, though with feedback loops at each stage to permit iteration (Webber, 2014).

The process starts by identifying the need for the intervention from social epidemiology and practice-based research. In the case of the intervention being discussed in this paper, studies have identified that people with mental health problems have access to less social capital than the general population (Dutt & Webber, 2010; Song, 2011; Webber & Huxley, 2007). Social capital is a disputed notion which encompasses concepts such as trust, reciprocity, social networks and social norms, and has both cognitive and structural dimensions (see Halpern, 2005 for an overview). However, it is correlated with mental health (De Silva, McKenzie, Harpham, & Huttly, 2005; Nyqvist, Forsman, Giuntoli, & Cattan, 2013); lowers the risk of depression (Fujiwara & Kawachi, 2008); and is associated with changes in quality of life for people with depression (Webber, Huxley, & Harris, 2011) and fewer experiences of discrimination (Webber et al., 2014).

Enhancing informal support networks and engaging people with mental health problems with their communities is key to enhancing their access to social capital. This has been recognised in the UK as a key role of the mental health social worker (Allen 2014). However, as there is insufficient evidence of the effectiveness of interventions which support the social participation of people with mental health problems (Newlin, Morris, Howarth, & Webber, in press), we set out to develop the Connecting People Intervention (CPI) .

Modelling the processes involved in complex social interventions facilitates their implementation by helping to clarify what practitioners are expected to do; assisting them to clearly articulate their practice to others; identifying how an intervention can lead to improved outcomes; and providing a framework for the measurement of fidelity. This paper focuses on the modelling component of the intervention development by drawing upon the

practice wisdom of practitioners and the lived experience of service users (we acknowledge that this term is not universally used to describe people who social workers work with – 'consumers', 'clients' or 'customers' are preferred in many contexts – but it is the one most commonly used in mental health services in England where this study originated from). The processes we used to develop the intervention model will be described under 'methods' below, and the processes involved in the CPI itself will then be discussed under 'results'.

After modelling the intervention comes the pilot phase where the aim is to evaluate if it produces positive outcomes for service users (Webber, 2014). We piloted the CPI in a large quasi-experimental study in 14 agencies in England to help us to answer the question: "Does it work?" The findings of this study are currently being prepared for publication. If pilot data suggests that the intervention does not improve outcomes as hypothesised, studies could either be replicated to see if the findings were context-dependent; the intervention itself could be amended in view of the pilot data; or the intervention could be abandoned at this point as not being effective. However, if findings are positive, it is possible to progress to an evaluation of the intervention in routine practice settings, often using a randomised controlled trial. If there is evidence of its effectiveness at this point, it is possible to recommend its implementation in routine practice, though in reality implementation often happens earlier should an intervention appear promising (Webber, 2014).

Methods

We harvested practice wisdom about potentially effective ways of supporting the social participation of people recovering from a mental health problem using semi-structured interviews, unstructured interviews, non-participant observation, participant observation and informal discussions in six health and social care agencies. Data were analysed as an iterative process throughout data collection using the constant comparative method in grounded theory

(Glaser & Strauss, 1967) and the findings of this study have been reported elsewhere (Webber, Reidy, Ansari, Stevens, & Morris, 2015).

To develop the intervention model we held focus groups of workers (n=18) and service users (n=16) to discuss the themes which emerged at the end of each phase of data collection in the study. Seven of the workers who participated in focus groups had been involved in the original study, though none of the service users had. The socio-demographic profile of the participants (table 1) is broadly similar to those who participated in the original study.

Table 1 Socio-demographic characteristics of focus group participants

	Workers n=18 (%)	**Service users** n=16 (%)
Gender		
Male	6 (33.3)	9 (56.3)
Female	12 (66.6)	7 (43.8)
Age (in years)		
<29	6 (33.3)	8 (50.0)
30-49	6 (33.3)	6 (37.5)
>50	5 (27.8)	1 (6.3)
Not given	1 (5.6)	1 (6.3)
Ethnic group		
White British	9 (50.0)	10 (62.5)
Other white ethnicity	5 (27.8)	2 (12.5)
Asian / Asian British	0 (0)	1 (6.3)

Black / Black British	2 (11.1)	0 (0)
Other ethnicity	1 (5.6)	1 (6.3)
Not given	1 (5.6)	2 (12.5)
Worker role		
Manager / team leader	2 (11.1)	
Support worker	4 (22.2)	
Social worker	1 (5.6)	
Social work student	1 (5.6)	
Occupational therapist	3 (16.7)	
Clinical Psychologist	3 (16.7)	
Consultant Psychiatrist	1 (5.6)	
Other workers (e.g. health and wellbeing worker)	3 (16.7)	

Two focus groups of workers and two focus groups of service users were held at the end of the first phase of data collection. These helped us to ensure our data coding was accurate; discuss emerging findings; iteratively develop the intervention model; and check when data saturation was achieved. A fifth group discussion was held after the second phase of data collection to check the assumptions we made in the analysis process and to confirm the intervention model which emerged from previous group discussions and further data collection. Group discussions followed a semi-structured topic guide which was amended iteratively throughout the process as the intervention model developed. The groups typically lasted between 45 and 90 minutes, and alternated between groups with service users and

groups with workers. The focus groups also assisted us to develop the accompanying practice guidance.

On completion of the focus group process (when no further major modifications to the intervention model were suggested), we used the Delphi consultation method (Linstone & Turoff, 1975) to refine the intervention model; ensure that it was feasible in practice; and that it reflected processes implicit in Lin's (2001) social capital theory. Twelve people including those with mental health problems, practitioners and international social care and social capital experts were sent a draft of the intervention model and a structured self-complete questionnaire. This comprised standardised ratings on the fidelity of the intervention to social capital theory and the likely feasibility and acceptability of the intervention in practice. We additionally asked for brief qualitative responses to these items to inform the refinement of the intervention model. Mean ratings on the standardised measures were calculated and informed the revision of the intervention model, supported by the qualitative feedback where appropriate. A second round of consultation using the same method was conducted after the intervention model was amended. The iterative consultation provided an opportunity for members of the reference group to re-evaluate their opinions in the light of the average ratings of the group.

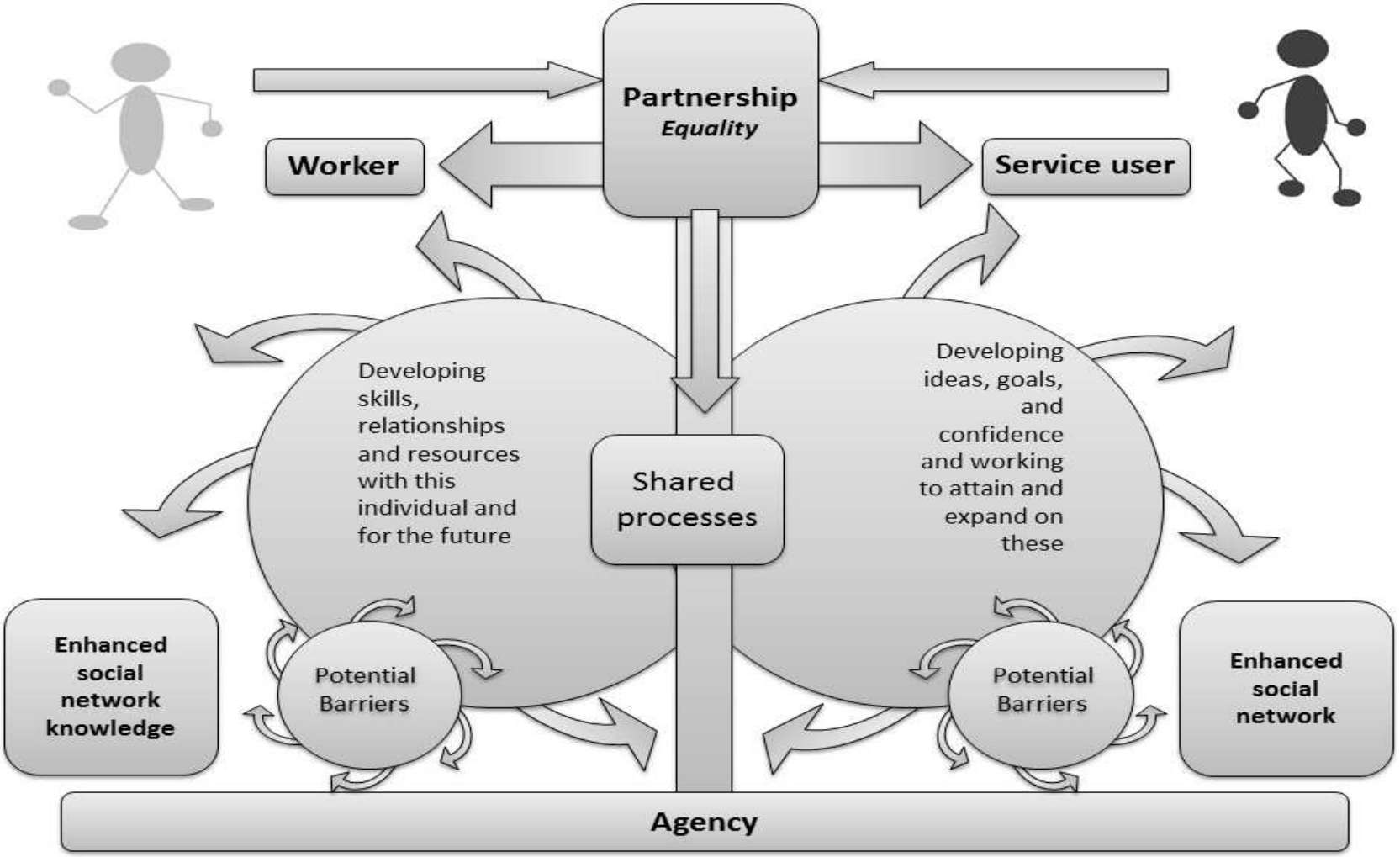
Ethical approval for the study was provided by the NW London NHS Research Ethics Committee 2 (ref. 10/H0720/48).

Results

Connecting People Intervention model

The final model which emerged from the focus groups and refined in the Delphi consultation was dynamic and featured four intertwined domains – 'agency', 'individual', 'practice' and 'worker' (figure 1). The relationship of the worker and the service user is central to the model, though it is an evolving, mutual relationship which is not typical of traditional

Figure 1 Connecting People Intervention Model



'clinician-patient' roles. Conceived as spinning circles, the process requires a partnership where both circles revolve at a pace to suit both the worker and the service user. The circular motion also indicates that the intervention process is not a linear one where an outcome emerges predictably as a direct consequence of intervention. Instead, social networks are developed as a bi-product of this model, which is arguably sympathetic to Lin's (2001) propositions. New relationships could form, mutuality be developed and the potential for reciprocity be created at any point in the intervention process. The circles are represented as Catherine wheels, with sparks flying off in all directions representing the unpredictability of when, or if, social networks are enhanced. However, barriers to social network development were prominent in the data collected and were represented on the model as two counter-rotating circles which frustrate the motion of the two main circles.

The model is centred around the partnership of a worker and a service user within an agency. It is based upon the principles of co-production. Rather than a worker 'doing' and an service user 'receiving', workers and service users co-create the objectives and actions within the model together. This means that the model represents a shared journey of discovery with inputs being invested and outcomes being produced for both the worker and the service user.

Social work agency

The agency in which the intervention occurs – whether this is a statutory service, a voluntary or private sector organisation, a social enterprise, or something else – is really crucial. It is depicted on the model as underpinning and running up through the middle of the intervention. This demonstrates the responsibility of the agency to support the rest of the process; without a supportive agency, it is much harder for the rest of the intervention to run smoothly.

There are a number of features that are typical of an agency where the intervention works well. These include a modelling of good practice; skill sharing; community engagement and good local knowledge. This means that the agency will have a strong knowledge of local assets and the social networks available in the community it serves, outside of the health, social care and wellbeing services.

The agency can provide a physical environment which facilitates social connections but, more importantly, can provide useful links with local geographical and interest communities which workers may not have independently. The agency is depicted in this model as running up through the centre of the intervention. This demonstrates how the shared knowledge of the local community and the intervention model held by the agency can prevent interventions failing when workers leave. Agencies can help to reduce reliance on individual workers, who may be the only ones to hold connections within the local community, by taking collective responsibility for these connections. The agency is key to holding the structure of the intervention together.

Partnership of worker and individual

At the top of the model are some pre-requisites which need to be in place before the intervention cycle can start moving forward. The worker needs to have empathy, a 'can do' attitude and be a skilled networker, while the person they are working with needs to have some enthusiasm for engaging in this process and taking ownership over it. Together, the worker and service user work in partnership which ideally needs to be as equal a relationship as possible. Both need to see what they can gain from the other, and what they can give back in order to ensure that the intervention process is a success. Qualities within this partnership also include the shared attributes of confidence; flexibility; lived experience or a comprehensive understanding of the client group in which they are working; openness; hope; and trust.

The importance of this partnership is clear throughout the model. The circle on the left of figure 1, which represents the worker's journey during the intervention, and the circle on the right, which represents the journey of the service user, overlap to symbolise that they are constantly intertwined and interdependent. We have used these two interlocking circles to represent the fluidity of the process and the uncertainty about when, or if, social network development will occur.

The goal of the intervention is to get these two circles moving in tandem, working with each other to move the service user forward. It is down to a strong partnership to ensure that the worker can maintain a good relationship with the service user, and support them to continue moving forward into roles, relationships and networks beyond the service. The partnership is evident in the shared processes that occur during the intervention. This is represented by the square in the middle which is the true heart of the model because it represents the co-produced activities. When the worker and service user meet for the first time in the context of this model, they explore the life goals of the service user and they develop a realistic strategy together to help him or her to achieve these.

The activities which the worker and the service user agree to undertake together may be in the context of what the agency provides or it may be additional to that. Some underpinning elements of these activities may include network and asset assessment; objective development; and inspiration (where the worker talks about new ideas or helps the individual to develop their existing ones). When the plan for engaging in new activities and networks is made, the worker's role is to facilitate the service user's engagement with it. The worker needs to know, or find out, what resources or facilities are available to assist the service user to achieve their goal, so they can sign-post or support them to engage with them as appropriate. However, the intervention process relies on both the service user and the worker fulfilling their side of the partnership to keep the circles spinning. This might involve activities for the worker to engage in to develop their knowledge of the networks available

for the service user. Finally, the shared processes of skill recognition and feedback provide individuals with the encouragement to build upon and share their strengths and assets.

The service user's process

The circle on the right of figure 1 represents the process a service user undertakes which can lead to social network development. We expect every instance to be different, but in general the process involves catalysing ideas and experiences. This is where the person is exposed to new ideas and activities, or has their existing ones encouraged and developed. This process may introduce them to new people and activities, further develop their skills and interests and enhance their social confidence. An ultimate goal of this process is to develop networks with new people and organisations which enhances that person's access to social capital. As the service user gains ownership over this process, it could be referred to as them 'building currency'. We have deliberately omitted any details about what the service user and worker might do within this process as it is up to them to co-produce the activities. However, our research findings (Webber et al., 2015) suggest that social network development may occur at any point in this process.

A key point to note is that the service user is free to leave and re-enter the intervention process as they want and need to. They may go away and come back at a different stage in their process of recovery, or as they develop more confidence in their ability to form relationships and links beyond services. They may even choose to re-engage with a different organisation. The agency and worker need to be supportive of this in order to make sure that when the person is moving through the intervention they want to be there.

The worker's process

The process the worker follows, represented by the circle on the left of the model, is equally as important in the intervention process as the service user's. This assumes that the worker

will need to develop their own social network knowledge in order to support the service user on their journey. Workers will need to build relationships with the person and often their family, friends and local community, as well as with other local organisations. They will need to foster trust through their reliability and interpersonal skills; identify opportunities; engage with the individual's local community; develop their own networks and resources and remember these for future use; adapt to new ideas; and utilise their contacts in the process of supporting the person they are working with. It is important that the worker can think creatively and use their resources effectively in order for them to keep their part of the intervention process moving. At any point, they may need to provide extra support or reassess their involvement, while the person they are working with may also need to seek advice from them and develop their own self-awareness of their journey.

Barriers

A prominent finding from the study was that even if the worker does everything that they could, and the service user completes their part of the process successfully, there could still be things that frustrate social network development. The possible barriers are represented as smaller circles that turn against the journeys of the individual and the worker. They are not necessarily internal to the service user or the worker themselves, but all have the common factor of working in the opposite direction to the intervention cycle, and so potentially posing considerable challenges.

For the service user, these barriers may include self-stigma or discrimination from their families or wider communities. Some minority groups may face barriers due to a lack of culturally appropriate services or networks, or may find it difficult to engage with mainstream services which may not be suitable for their needs. Some people may experience physical health problems, complicated external lives or unhelpful attitudes within themselves or the organisation providing the context for the intervention. Others may be connected to people

who are not conducive to their recovery, have insufficient information about services available, or experience poor access to services, for example. These barriers will present the worker with a number of challenges, and are likely to be the most time-consuming element of their work. They need to be tackled and overcome in order for the intervention cycle to progress.

The worker may also face barriers. These may include a lack of local knowledge, and insufficient time or resources to engage with existing networks or agencies, which prevents them from making new connections. Inefficient or bureaucratic procedures can compromise their ability to develop relationships with a service user and their wider communities. However, the attitudes of the agency, the worker and the local community can be one of the largest barriers faced. The 'can-do' mentality mentioned above is crucial in order for workers to be able to overcome this.

Outcomes

Our findings suggest that when these systems and processes occur, and the intervention process moves in the dynamic way that is seen in the model, the outcomes will include an enhancement in the individual's social network, thereby increasing their access to social capital. In addition, the service user may experience an increased social confidence and participate in more social activities, which may also improve their wellbeing. These activities are ideally activities based on shared interests within the local community rather than being confined to health or social care services. The person may also deepen their existing relationships, more closely align their activities to their talents, and increase their own contribution to the lives of others. Additionally, the worker may develop their community knowledge and improve the ways that they network and interact with others.

The intervention model is not a prescriptive and linear process. The nature of social network development means that it can be quite spontaneous and occur at any time during the

intervention. The CPI model brings together the factors which our findings suggest are necessary to help make it happen.

Discussion

The CPI model articulates the processes involved in working with someone to enhance their social networks. Although informed by social capital theory (Lin, 2001), the CPI model has synergies with other models and theories which social workers draw upon in their practice. For example, the asset-based approach of the CPI model is not dissimilar from Rapp's (1998) Strengths Model. It starts with what the service can do and builds upon that whilst focusing on what they can bring to the process. Additionally, systems theory, whose social work origins can be attributed to Forder (1976), reminds practitioners of the networked nature of our lives and the importance of engaging with systems and networks to support an individual or family.

Beyond social work, asset-based community development (Kretzmann & McKnight, 1993), which involves a community identifying and mobilising its own assets to solve problems without the intervention of external agencies, uses some similar techniques. Also, the RSA Connected Communities programme (Rowson, Broome, & Jones, 2010) uses network mapping techniques to map a community's connections which can be mobilised for specific purposes.

The CPI model can also work in peer support services. People could move from the circle on the right to the one on the left (see figure 1) as they become peer support workers, for example. Sometimes the two circles could be inter-changeable, as in the case of a user-run social enterprise which was supported to develop by one of the agencies participating in this study. This small social enterprise provides peer support and mobilises community assets to provide opportunities for people to develop their skills, knowledge and access to social capital via new and emerging social networks. Additionally, it is conceivable that the service

user's circle on the right could spin off the page to join other circles beyond the model. This represents someone moving on from the service and developing their own networks which support them so that they no longer require social work involvement.

The model is complex, which can lead some practitioners to misunderstand how it works. Although the accompanying practice guidance illustrates the components of the models using case studies, its complexity can deter some from using it. Also, it is not prescriptive about what the practitioner should do at each stage of the process as it relies upon their professional judgement. Many standardised interventions clearly state what has to be undertaken on a session by session basis whereas the CPI starts and builds upon a service user's strengths to help to enhance their social connections. The co-production and shared decision-making in this model may be difficult for some practitioners to work with. However, the training accompanying the CPI model enables practitioners to understand their existing practice within the context of the model, therefore acting as a professional development tool.

The modelling and articulation of the processes involved in connecting people permits replication and measuring fidelity to the intervention. Additionally, the CPI features generic processes which can apply in social work with other isolated people, although further research is required to evaluate this. Should pilot findings show positive results, further experimental evaluation may help the model to provide an evidence-based framework for mental health social work, which occasionally struggles to define its unique contribution to mental health services in England (Nathan & Webber, 2010). Finally, making the processes involved in connecting people explicit may help the CPI model to be sensitively translated into different socio-economic and cultural contexts.

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