THE ROLE OF COLLECTIVE EFFICACY IN LONG-TERM CONDITION MANAGEMENT: A METASYNTHESIS

Short title:

COLLECTIVE EFFICACY AND LONG-TERM CONDITION MANAGEMENT

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**Acknowledgements**

This research was funded by the National Institute for Health Research Collaboration for Leadership in Applied Health Research and Care (NIHR CLAHRC) Wessex. This report is independent research by the NIHR CLAHRC Funding Scheme. The views expressed in this publication are those of the author(s) and not necessarily those of the NHS, the National Institute for Health Research, or the Department of Health and Social Care.

**Conflict of interest**

We declare no conflict of interest.

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**Abstract**

Social networks have been found to have a valuable role in supporting the management of long-term conditions. However, the focus on the quality and how well self-management interventions work focus on indivdualised behavioural outcomes such as self-efficacy and there is a need for understanding that focuses on the role of wider collective processes in self-management support. Collective efficacy presents a potentially useful candidate concept in the development and understanding of self-management support interventions. To date it has mainly been utilised in the context of organisations and neighbourhoods related to social phenomena such as community cohesion. Drawing on Bandura’s original theorisation this meta-synthesis explores how studies of collective efficacy might illuminate collective elements operating within the personal communities of people with long-term conditions.

A qualitative meta-synthesis was undertaken. Studies published between 1998 and 2018 that examined collective efficacy in relation to health and wellbeing using qualitative and mixed methods were eligible for inclusion. Timing of engagement with others, building trust in the group, and legitimising ongoing engagement with the group arised as central elements of collective efficacy. The two themes forming 3rd order constructs were related to the presence of *continuous interaction* and *on-going relational work* between members of the group. Collective efficacy can develop and be sustained over time in a range of situations where individuals may not have intense relationships with one another and have limited commitment and contact with one another. Extending this to the personal communities of people with long-term conditions it may be the case that collective efficacy enables a number of engagement opportunities which can be oriented towards assisting with support from networks over a sustained length of time. This may include negotiating acceptable connections to resources and activities which in turn may help change existing practice in ways that improve long-term condition management.

**Key words**

Collective efficacy, self efficacy, long-term conditions, meta-synthesis, self-management

**What is known about the topic**

* Social networks, reciprocity, and relationality play a key role in the management of long-term conditions in people’s everyday lives.
* There is need to better understand how people engage with social capital, support, and resources in a way that is acceptable and meaningful to them and members of their networks when managing and living with a long-term condition.
* Collective efficacy is closely linked conceptually to the notion of self-efficacy, but while self-efficacy is widely used to assess and develop interventions supporting people with long-term conditions collective efficacy is rarely used in such contexts.

**What this paper adds**

* Collective efficacy is a key concept illuminating the process of engaging and sustaining self-management support in everyday settings.
* The paper illuminates the potential that the notion of collective efficacy can play in improved understanding of the interdependencies between the social and psychological processes involved in the everyday management of long-term conditions.
* The findings might assist with identifying the ways in which people living with long term condition might engage network members in mobilising and sustaining support in domestic and community settings.

**Background**

Historically the literature on long-term condition management has emphasised the pivotal role played by individual knowledge, skills, motivation and capacity to self-manage. There is growing recognition that self-management is not an individual process, but one that depends on the support provided by members of one’s social network. The involvement of network members in illness management forms an aspect of a collective network process, effort and change placing emphasis on collective agency rather than individual *self-efficacy.*  Recent findings highlight how social involvement with a diverse range of people, activities and groups provides social and psychological opportunities and resources which contribute to self-management support (SMS) and physical and mental well-being (Reeves et al. 2014, Koetsenruijter et al. 2015). This more recent focus has highlighted a need to better understand how people engage with social capital, support, and resources in a way that is acceptable and meaningful to them and members of their networks when managing and living with a long-term condition. Here we consider networks as personal communities that extend beyond patient and carer dyads to include a larger group of a community of interconnected individuals (such as friends and colleagues) that are strongly or loosely connected with one another (referred to as a network of networks (Vassilev et al. 2011)).The dynamic of an individual operating within this type of networks may involve making decisions about when and who to contact, identifying and utilising resources that were previously underused, selecting some individuals over others, and providing a rationale that helps keep existing relationships content (Kennedy et al. 2015) This points to the need to explore the relationship between social capital and social support through paying greater attention to the process of engagement within social networks and the varying levels of collective efficacy of different networks, i.e. their individual and collective capacity for such engagement (Vassilev et al. 2014).

Collective efficacy was first mooted by Bandura (1986) who defined it as "a group's shared belief in its conjoint capabilities to organize and execute the courses of action required to produce given levels of attainments". Referencing social cognitive theory, collective efficacy encompasses co-ordinated, interactive and shared effort, beliefs, influence, perseverance, and objectives in the pursuit of behavioural outcomes (Bandura and Kazdin 2000). Collective efficacy is an “emergent property” of the group, rather than the sum of the self- efficacy levels of individual group members, and is “the product of the interactive and coordinative dynamics of its members” (Bandura 1998). In Bandura’s original work CE is conceptualised as a group process that can operate on the micro, meso and macro levels, where it is of relevance for understanding the common concerns of families, social networks, institutions, and national communities (Bandura 1997). Collective efficacy has most frequently been examined on the meso level to study different communities of belonging (kin, ethnic, cultural, faith) and place (neighbourhoods), and organisations the boundaries of which are relatively well-defined (community care settings, schools, businesses) (Bazant and Boulay 2007, Lawrence and Schiegelone 2002, Goddard et al. 2004, Sampson et al. 1997). When applied to neighbourhood safety for example collective efficacy is proposed to operate with reference to group support, motivation, responsibility, and the capacity to achieve common goals and willingness to intervene for the ‘common good’ (Sampson et al. 1997). Social cohesion and informal social control are identified as two major elements of CE in neighbourhoods: the former implicates solidarity and mutual trust, whilst informal social control is needed to fulfil the group expectation to be able to take action together. The notion of CE has been developed little beyond such applications on the meso-level but the idea re-emerged within studies of LTCM, where it has different nuances.

In relation to living with a LTC strategies and practices for management operate on the micro level and are likely to incorporate multiple and changing objectives, and to spread across a wide set of relationships and groups that individuals belong to (e.g. place of work, locality) (Vassilev et al. 2014). Given the specific complexities of relations within the personal communities of people experiencing a range of conditions there is a need to explore more fully the possible feasibility, utility, and applicability of conceptualisations of CE to LTCM network support and design of complex interventions. This meta-synthesis was designed to explore the existing conceptualisations and empirical research on CE as a means of illuminating the collective processes operating within the personal communities of people with LTCs, and identifying some of the conditions required for building and sustaining CE in such contexts.

**Methods**

We used meta-synthesis in order to identify the processes associated with developing and sustaining collective efficacy across different groups and to illuminate the relevance of these processes for the everyday management of long-term conditions. We included a broad public health focus which included the more distal social elements and environment which are likely to impact on interactions in a local community which impact indirectly on health. Meta-synthesis is an inductive method for synthesising and re-interpreting in novel ways empirical data and conceptualisations across qualitative studies (Noblit and Hare 1988). The method allows for the in-depth understanding of the phenomena studied and its articulations across different contexts by exploring it on three levels. First order constructs are the narratives, experiences and interpretations of respondents. Second order constructs are the constructs and interpretations of the authors of the reviewed papers. Third order constructs are the interpretations, concepts and theories that illuminate the relationship between second order constructs and the research questions (Noblit and Hare 1988, Britten et al 2002, Campbell et al 2003).

***Search procedure***

The literature search was conducted in January 2018 using the following key words: ‘collective efficacy’; ‘qualitative’; ‘focus group\*’; ‘interview’; and ‘ethnograph\*. The following databases were searched: Web of Science; PubMed, Embase, Medline, and the Cochrane Library. Additional studies were sought through manually checking references recorded in relevant studies.

***Study selection***

Inclusion criteria required that studies were: written in English; published 1998 – 2018; found to include the term ‘collective efficacy’; predominately qualitative or mixed methods; socio-environmental factors that contribute to health and community and locality relevance. Exclusion criteria eliminated studies that were: predominately quantitative; non-health related (e.g. education-based, activism-based, elite sports related). Studies were first identified against by a researcher (EJ): the initial search found 1,692 articles that contained ‘collective efficacy’ in the abstract, which was reduced to 128 articles using qualitative methods of analysis. These 128 articles were screened jointly by three reviewers (EJ, AK, IV) to assess eligibility. Papers were initially screened by title and abstract but if insufficient we also looked at the whole paper. We used the Blaxter (1996) guidance for evaluating qualitative papers. This included evaluation of the process of data sampling and generating themes, systematic presentation of findings that are credible and appropriate, discussion plausibly linking data interpretation and theory. Any discrepancies at this stage were discussed by the full team (including AR, RB). Feedback was collated in order to reach consensus, with 25 articles agreed for inclusion. The search and selection process is illustrated in Figure 1. Most commonly, studies examined collective efficacy in neighbourhood environments (n=12) and public housing (n=2). Other contexts included community organisations or groups (n=4), within personal communities such as families and dyads, (n=5) and in occupational settings (n=2).

[Figure 1 about here]

***Data extraction and synthesis***

Given the limited use of the notion of collective efficacy in relation to personal communities and the management of long-term conditions we started the review process by identifying conceptualisations of collective efficacy and the contexts within which they were discussed. Applied realist approaches informed the early stages of the review in conceptualising the potentially relevant mechanisms (Table 1 and Figure 2), and framing the key questions (Porter 1993, Pawson and Tilly 1997, Decoteau 2017). Data from each of the twenty-five papers included in the final synthesis were each extracted by two team members. Using dedicated forms for standardising extraction, key findings and themes identified in the study were extracted. The data extraction form included details of the study setting and locality, sampling data collection and analysis. The key findings and themes identified as first order constructs. Author references to the notion of CE in terms of implications and policy recommendations were identified as second order constructs (e.g. ‘Social cohesion among neighbours combined with their willingness to intervene on behalf of the common good’ Sampson et al 1998). The evidence was synthesised by a reviewer (RB) and findings were discussed within the team. A synthesis table was generated which included the social and environmental contexts, what were the conditions, circumstances, perceived barriers and facilitators associated with CE. A summary of the data is provided in Table 1. Visual representations of the relationships between constructs were developed (Figure 2); this process went through several iterations which were discussed by the team at each stage. Critical interpretations by reviewers of the necessary conditions for the development and sustainability over time of CE were developed as third order constructs.

[Table 1 about here]

[Figure 2 about here]

**Results**

The themes developed in the analysed papers, 2nd order synthesis, were summarised within three overarching themes: the fragile nature and changing salience of collective efficacy over time, relationships and trust between group members, legitimising ongoing engagement with the group (see Table 2).

[Table 2 about here]

**The fragile nature and changing salience of collective efficacy over time**

In circumstances leading up to a critical event, such as disaster or immediate threat to the group, collective efficacy may emerge quickly, presenting as a “momentary upsurge in collective unity” (Moore et al. 2004). It appears that, under critical circumstances, individuals within the group are prepared to give more effort and time to the collective generated by the sense of a common purpose than under more mundane circumstances. However, the presence of a threat alone is insufficient to bring about collective efficacy, with the evidence suggesting that interactions that occur between the environment and timing of action are pertinent (Petrosino and Pace 2015). Several studies highlighted the fragility of collective efficacy and how it could be undermined by environmental influences. This included the exposure to the effects of crime or other negative experiences such as domestic violence that undermined personal self-esteem and feelings of personal safety and identity (Wickes 2010, Jarret et al. 2011, Turney et al. 2012, McNamara et al. 2013, Kleinhans and Bolt 2014, Pegram et al. 2016). Perceived threats and experiences can outweigh the potential positive effects of collective efficacy (Bazant and Boulay 2007). Compared to locations of affluence the generation of collective efficacy is seemingly more difficult in deprived neighbourhoods which lack the necessary resources and capacity to organise action or mobilise available resources (Altschuler et al. 2004, Moore et al. 2004, Rogers et al. 2008, Bess et al. 2009, Jarret et al. 2011). This can lead to people feeling “stuck” in the situation (Freedman et al. 2012) and powerless due to fear and burden (Bess et al. 2009), which have particular meaning to the social situations of marginalised groups or individuals with stigmatised identities (Moore et al. 2004, McNamara et al. 2013). Coping strategies to deal with the latter can bring about further social isolation and avoidance (Rogers et al. 2008). A lack of clear visible leadership around a matter of group or locality concern can also suppress collective efficacy (Petrosino and Pace 2015, Pegram et al. 2016), as do lack of skills with engaging with, and mistrust of formal organisations (Rogers et al. 2008, Sargeant et al. 2013). Cultural barriers, such as expectations from others for reciprocity, may also contribute to a lack or diminution of collective efficacy (Mok and Martinson 2000).

**Relationships and trust between group members**

In many cases, collective efficacy is generated over time as a result of trustworthiness, and the on-going relationship amongst group members (Vassilev et al. 2014), is an outcome of repeated interactions between neighbours in a shared environment (Kleinhans and Bolt 2014, Gerrel 2015, Howarth et al. 2012) and often the result of dedicated attempts at building personal relationships between group members (Fisher and Gosselink 2008, Ingram et al. 2009). The process of negotiating a set of common goals (such as starting walking or joining a walking group) between group members is a key component in the development of collective efficacy (Beverly and Wray 2008, Ingram et al. 2009, Vassilev et al. 2014). Familiarity is another- through getting to know others helps people to work together, through building a sense of safety (Pegram et al. 2016), opportunity understanding, communicating and sharing mutual or exchangeable skills and capabilities (Bess et al. 2009, Howarth et al. 2012) or in helping others to ‘bridge the gap’, when their own personal capabilities and resources are lacking (Shin 2014). Collective efficacy has been associated with the sharing of personal information, developing a sense of belonging and establishing feelings of trust and trustworthiness between network members (Mok and Martinson 2000, Ingram et al. 2009). As relationships develop, social support and norms are strengthened, building confidence and credibility of the group (Teig et al. 2009, Howarth et al. 2012). Converse to this some studies highlight deviant cases, where trust and strong relationships between certain group members lead to informal social control with negative outcomes (DeKeseredy and Schwartz 2004). In the example of domestic violence strong relationships and high levels of mutual trust between men led to a high degree of collective efficacy for reinforcing established social norms (of male dominance and violence in rural communities), making it difficult for women victims to resist or tackle the problem (DeKeseredy and Schwartz 2004).

**Legitimising ongoing engagement with the group**

Following the emergence of collective efficacy, whether triggered by a critical incident, or nurtured through the development of relationships over time, the evidence reviewed suggests that further work must be undertaken to sustain the process. This involves the deployment of authoritative support in the form of visible leaders or a set of group members responding to individual concerns, and driving collective goals and actions (Teig et al. 2009, Shin 2014, Petrosino and Pace 2015, Pegram et al. 2016, Carter et al. 2017). Constancy of effort and ongoing review of common goals are relevant to this (Ingram et al. 2009) as is feedback on the performance and achievements of the collective which promotes and reinforces action over time through increased self- and collective-efficacy (Fisher and Gosselink 2008, Beverly and Wray 2008). Such a process is enhanced through the presence of trusted individuals who are engaged on a day-to-day basis with different members of the group, make themselves available and are able to formulate, respond to, and negotiate individual and group concerns as they arise (Pegram et al. 2016, Carter 2017). The ability to access and build in new resources are also required to sustain collective effort, the extent to which this is possible is influenced by social disadvantage and inequalities (Moore et al. 2004, Rogers et al. 2008, Pegram et al. 2016) meaning that collective efficacy decreases even when there is a clear ongoing need and perceived advantage for collective action (Moore et al. 2004).

**Collective efficacy in the context of long-term condition management: third order synthesis**

The summary of themes and observations by authors of the original papers were reinterpreted in relation to two key questions we posed at the beginning of the review: what are the conditions required for building and sustaining CE?, and how can this knowledge inform our understanding of the collective processes operating, on the micro level, within the personal communities of people with LTCs?. The third order synthesis indicates that *continuous interaction* and *on-going relational work* are the necessary conditions for the development and sustainability of CE (see Figure 3). Specifically, the presence of *continuous interaction* between (not necessarily all) members of groups is associated with the development of familiarity, a sense of association, and weak forms of trust and trustworthiness. The reviewed studies indicate that the presence of shared activities (cultural, sporting, recreational, professional, religious, artistic, educational), the use of collective spaces (gardens, stairwells, and communal areas) as part of routine daily activities, and opportunities for minimal daily interaction, expressions of friendliness, indications of concern for members of the group or the group as a whole, which may be sufficient to generate the required collective efficacy needed to promote well-being or leverage social involvement and inter-personal support. Collective efficacy also requires a degree of *on-going relational work* where individuals have the opportunity and capability to negotiate acceptable ways of identifying and working towards achieving objectives of individual or mutual value. These may include things such as improving access to food stores, green spaces, recreational activities, or housing, removing visual effects of crime, addressing concerns about social exclusion, safety, or organisational performance, negotiating perceived or real cultural differences. These findings are consistent with Bandura’s original theorisation where CE is understood as an emergent property of relationships between members of groups (Bandura 1986, Sampson 1997) orientated towards addressing individual and collective concerns. Indeed, the structural characteristics of groups such as a sense of common identity and belonging to the group; homogeneity of background and experiences of group members; presence of well-defined and shared beliefs and expectations (Wickes 2010, Sargeant 2013); capacity of the group to act as a single unit (Beverly and Wray 2008, Fisher and Gosselink 2008, Teig et al. 2009, Kleinhans and Bolt 2014, Petrosino and Pace 2015), while relevant, were seemingly neither necessary nor sufficient conditions for developing and sustaining CE (see Table 3). Our findings show that CE can operate in small and large-scale groups, where there might be multiple and conflicting articulations of the common good, and where a single common goal, that is well-defined and widely shared across the whole group, might be absent. Identifying continuous interaction and relational work as the necessary conditions for CE suggests that relationality in CE needs to be understood broadly in terms of both process and outcome, i.e. as the group capacity to mobilise towards identifying, negotiating, and doing the right thing at the right time while adapting to changing contexts (rather the narrower definition of achieving a fairly well defined common goal).

This metasynthesis extends earlier applications of the notion of CE to neighbourhoods and organisations (Sampson et al. 1997, Goddard et al. 2004) by indicating that that the notion can be applied at a micro level with reference to the personal communities of people with LTCs. In contrast to organisationally based groups of people, where group membership, boundaries, and objectives are framed by institutional logics (e.g. school or student performance, competitiveness, innovativeness, etc.) and thus relatively closed for group deliberation, personal communities operate in the open systems of people’s everyday life where objectives, concerns, and social roles are more likely to vary and fluid. Personal communities are constituted of relationships which include a range of expectations, responsibilities, and forms of reciprocity (e.g. towards and between close and distant family members, friends, neighbours, acquaintances, colleagues, healthcare professionals, etc.). Additionally, the objectives and priorities of people with LTCs are multiple, competing, and change over time. These may include managing the experience of symptoms in different everyday situations, concern for the well-being of other network members, ability to reciprocate and feel valued by others, capabilities to adopting changes orientated to ameliorate or lessen the impact of living life with a particular LTC, building individual and network connections over time, and negotiating and achieving a range of activities that are valued as part of everyday life. Thus, the individual and collective capacity of network members to do relational work in negotiating and navigating relationships across the multiple contexts of LTCM is a key aspect of collective efficacy when mobilising and sustaining self-management support. Specifically, the everyday LTCM necessitates making judgments as to which existing relationships are required or need adjustment and which new ones need to be developed in undertaking self-management support (Pilgrim et al. 2009, Vassilev et al. 2013, Cramm and Nieboer 2014). Approaching network members for help involves considerations as to how one might fulfil the expectations of reciprocity and acceptability of receiving support from others and how to resolve inherent tensions. For example, the desire for independence and autonomy may take precedence over the need for physical assistance, and act as a reason for not activating, or navigating support even when it is available. The preserving of a pre-existing identity and roles in relation to specific close family ties (such as a son or daughter) or distrust and untrustworthiness of formal institutions may also preclude or promote the seeking and harnessing of support (Moore and McArthur 2007, Kennedy et al. 2015).

Understanding collective efficacy as a process and of relationships helps to illuminate the roles and make –up of groups (e.g. size, homogeneity, density, fragmentation) and types of ties (e.g. relationships perceived to be strong (bonding or weak bridging) might have for mobilising and sustaining support. Thus, while homogeneity has been identified as relevant to mobilisation of support in neighbourhoods and organisations, heterogeneity and diversity of personal communities are related with capacity for LTCM. Specifically, people whose personal communities include a range and diversity of relationships such as friends, pets, neighbours and activity groups, (including where many network members do not know each other) report better self-management support and well-being than people whose personal communities primarily consisting of family members (Litwin 1998, Reeves et al. 2014, Vassilev et al. 2016). This may in part be due to opportunities for improve access to information and personal experiences available within a wider network which also may account for a reduction of burden on intimate relationships and potential to access support that is easier to reciprocate and less consequential if it fails to materialise (than is the case with intimate others) and enable access to activities that allow people to feel valued for their skill and competence outside their roles within families (Rogers et al. 2014).

[Figure 3 about here]

[Table 3 about here]

**Conclusions**

Interest in collective efficacy has traditionally been through policy concerns about local risks to safety and deprivation of neighbourhoods and communities, and institutional underperformance. This focus tends to predefine collectives of interest as tight-knit communities and to associate collective efficacy with the structure and properties of these. A narrow definition of CE is less applicable when CE is viewed in the context of LTCM, located in personal communities that are likely to resemble more loosely inter-connected networks than tight-knit communities. Despite the close link between notions of self-efficacy and collective efficacy in Bandura’s work it is only self-efficacy that has achieved wide use and recognition, which may in part be reflection of the narrow interpretation of the notion of collective efficacy and the poor fit of such an interpretation with the openness of the social networks and everyday settings within which LTCM is located.

This meta-synthesis found that the necessary and sufficient conditions for building CE were continuous interaction and on-going relational work within groups where group members can be linked through weak ties of acquaintanceship and familiarity (Pilgrim et al. 2009, Pegram et al. 2016). These findings are consistent with the original theorisation of CE and enable its application on the micro level in relation to personal communities. Specifically, on-going relational work within groups where group members negotiate how to achieve a common objective, what the objective is, and how to make it acceptable to different group members is likely to be relevant for all groups, but is of central importance on the micro level in negotiating the tensions inherent in utilising existing resources and mobilising social support (Ray and Street 2005, Waverijn et al. 2016).

Bandura’s concept has stood the test of time but elaborating it in relation to personal communities makes it relevant to LTCM. The notion of CE offers a link between individual level self-management processes, such as self-efficacy, and access to and capacity to mobilise social capital and environmental resources when living with a LTC (Foss et al. 2016). Specifically, improvements in CE for people with LTCs can be sought where there is low intensity but wide-ranging support for developing meaningful engagement opportunities dispersed within personal communities (e.g. in engagements with health professionals, in neighbourhoods, places of work, leisure, worship, education). This may include opportunities to improving individual and collective understanding of illness experiences; but also the ability to situate this understanding in relation to concrete concerns, valued activities and identities within personal communities, and the capacity of individuals and members of their personal communities to change existing practice in ways that improves LTCM while enhancing individual and collective well-being (Entwistle and Watt 2013).

Further exploration and theorisation of such processes is promising to contribute to developing a social network approach to SMS and lead to an improved understanding of the interdependencies between the social and psychological processes involved in the everyday management of a LTC. This is particularly relevant as many linked policy interventions designed to support LTCM, such as social prescribing for example, show deficits in understanding of the environments and interactions involved and resources needed. Further research might also aim to identify the mechanisms and structural characteristics associated with collective efficacy within and across the neighbourhoods, workplaces, and personal communities of people with LTCs, and explore the development of tools with which to measure collective efficacy across different contexts.

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