Rethinking long-term condition management: An actor-level framework

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Abstract
To understand the complexities of managing long-term conditions and develop appropriate responses, micro, meso, and macro levels must be considered. However, these levels have not been combined in a single analytical framework of long-term condition management (LTCM). This article aims to describe a framework of LTCM practice and research that combines societal levels and key agents. The actor-level framework, based on the works of Abram De Swaan and Randall Collins, provides a broader understanding of LTCM as an interdisciplinary research field compared to previous contributions. The framework has three main advantages. First, it encourages knowledge production across levels and actors that address the complexity of long-term illness management. Second, it broadens the scope of LTCM as an interdisciplinary research field and practice field. Finally, it facilitates the integration of knowledge production from different disciplines and research traditions. The framework could stimulate interdisciplinary research collaboration to enhance knowledge of processes and interactions influencing the lives of individuals with long-term conditions.

Keywords: Chronic illness, long-term illness, Coping/coping strategies, Social structure

Introduction

The high prevalence of long-term conditions increases the interest in research on long-term condition management (LTCM) (De Velde et al., 2019). Some argue that developing appropriate responses to the complex issue of LTCM necessitates studies of social organisation at micro, meso and macro levels (Greenhalgh, 2009). In health care literature (Krawczyk et al., 2018, Sutherland and Till, 1993), the micro-level is often understood as the clinical encounter between a patient and a health professional. The meso-level, on the other hand, involves the organisational or institutional dimension of health care regulation, while the macro-level relates to policymaking and governmental decisions regarding the health of the population.

Others contend that key actors in the field need to strengthen their roles (Grady and Gough, 2014). Health care professionals on micro and meso levels are considered crucial as they implement new approaches to improve persons' illness management and quality of life. User representatives operating on the meso and macro level play a crucial role in developing high-quality health care services together with health care professionals (Sandvin Olsson et

al., 2020). There is also a growing recognition that LTCM involves public health issues as well as clinical issues (Grady and Gough, 2014).

Existing models of LTCM include several actors and levels of analysis. For example, the Expert Patient Programme, the Flinders Programme and the Stanford Model of chronic disease self-management (Lawn and Schoo, 2010, Grover and Joshi, 2015) are offered to patients on a micro-level. Others have developed models of coordinated care on the meso level (Nolte and McKee, 2008), such as the Chronic Care Model (CCM) (Wagner et al., 2001). A third example within the sociological literature is the chronic illness trajectory framework (Corbin and Strauss, 1992) where both macro and micro levels are considered essential parts. However, as Sanders and Rogers (2011) argue, further research on the linkages between individual experiences of illness and social, political and organisational contexts is warranted.

In this article, we describe an actor-level framework that relates to different societal levels and key agents in a systematic manner. The framework, we argue, could facilitate the integration of knowledge production from different disciplines and research traditions and strengthen our understanding of processes and interactions that influence the lives of people with long-term conditions. There seems to be a tendency in the current LTCM-literature to describe the characteristics, perspectives and findings from specific research traditions. For instance, Greenhalgh (2009) identifies four seminal research traditions on managing long-term conditions: self-management programmes; coping with chronic illness; social-ecological models; and critical public health perspectives. Although Greenhalgh (2009) describes the different levels of social organisation, she does not discuss how aligning knowledge generated from different fields and traditions could develop LTCM as a field of practice and research.

An actor-level framework

The actor-level framework emerges from the combination of two theoretical approaches. The first approach derives from Abram De Swaan. Inspired by welfare economics and historical sociology, Norbert Elias in particular, De Swaan (1988) describes how the welfare state manifests itself in the lives of the citizens. This manifestation takes place in an intersection between the sphere of the state, the lives of individual citizens and professionalised expert groups. The late modern state aims to provide the citizens with health, education and poor-relief, and a large group of expert professions are engaged.

De Swann (1988) describes how these groups are closely interrelated. For example, the professionals are characterised by their triple loyalties: to other professionals in order to increase employment security and expert power, to clients' needs of good health and security and the state assigning professionals jurisdictional power. At the same time, the state is reliant upon professionals carrying out state policies based on evidence-based practice. The state exerts power over the citizens by regulating rights to services, at the same time citizens exert power over the state in elections. De Swaans analysis lacks however an updated understanding of the individuals or clients as agents in the practice and development of welfare and health services. In recent decades, patients have gained a strong voice both in their personal relations to service providers, and as organised pressure groups, such as patients' associations and the disability movement (Tritter, 2009). Hence, patients act both as clients negotiating person-centred services adapted to their life worlds, and as organised groups acting on the meso-level of hospital organisations and the macro-level of national state policy development.

To better grasp how the three types of actors in health are related, we bring in Randall Collins' (Collins, 1988b) analytical framing of the relationship between individual and society, distinguishing between micro, meso and macro societal levels. Collins (1988b)

describes a framework for organising sociological theories on these three levels. According to Collins, the micro-level, and therefore micro theories, concerns social situations and how individuals think, act and interact with family, friends and peers. Other theories try to understand processes at the meso or organisational level, such as hospitals or schools. At last, theories direct their attention to the macro level where the key term, according to Collins, is social structures, i.e., governmental institutions, politics and societal trends. Different to Collins, our ambition is not to sort out sociological theories but identify the characteristics of agency on these levels.

Furthermore, Collins encourages scholars to examine how agents and social processes at one level impinge on processes on other levels (Collins, 1988b). Arguing from a micro-sociological standpoint, inspired by Durkheim, Goffman and Garfinkel amongst others, he contends that to develop a sound understanding of interactions and processes at the level in question (e.g., the micro-level), theories and research on processes, meanings and artefacts connected to the same phenomenon at another level (e.g., meso-level) is necessary. Indeed, the purpose of organising theories and research in a framework combining actors in health and societal levels is to pursue the interlinkages between sociological work on the different levels (Collins, 1988b).

In this article, we argue that using an actor-level framework, drawing on De Swan and Collins' theoretical approaches, will heighten the level of analytical reflection and expand how the scope of LTCM research is envisioned. While previous publications have emphasised the importance of a micro-meso-macro perspective to understand structures and processes, (e.g., Krawczyk et al. 2018), their theoretical base is insufficient to address the full complexity of clinical care. In contrast to previous studies and theoretical models, our study provides an analytical framework for exploring micro-meso-macro connections which

includes patient, professionals and governments as key or critical agents shaping the practice of long-term condition management.

Inspired by a similar work within rehabilitation (Solvang et al., 2017), we elaborate the framework in a structured table with nine cells (table 1). As the table demonstrates, the framework spans from the daily lifeworld of people with long-term conditions (micro-level), via professionals arranging treatment chains (meso-level), to the formulation of governmental policies relevant to LTCM (macro-level). The vertical axis depicts societal levels whilst the horizontal axis denotes three key agents and the actions that they direct towards the different levels of LTCM practice. In each cell, we describe a social structure of a core issue in LTCM practice, followed by a related key research question posed in the literature. To illustrate the scope of research knowledge relevant to the field of LTCM, we also provide examples of research studies.

Although not exhaustive, the nine-cell table accentuates issues considered necessary in the practice field. Furthermore, by formulating related research questions, we not only provide examples of core questions asked in research but pinpoint the wide variety of relevant research themes, when viewed from an actor-level framework. The research examples described were selected for a similar reason. Because we aim to illustrate the wide range of studies, disciplines and research traditions relevant for the LTCM field, we have limited ourselves to foundational contributions, along with a few empirical or conceptual studies published within the various sub-fields in the last 10-15 years. A large number of contributions within a particular scholarly tradition is therefore excluded. The rationale behind including these studies is not to give a systematic review of the research literature at large, but to provide a novel mapping of a broad interdisciplinary research field.

A common feature in the social theories of De Swaan and Collins is the positioning of the individual and the immediate lifeworld as the starting point for the analysis of society. In

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the matrix, this approach is taken care of by organising the levels in a manner that put the individuals' lifeworld in the upper left-hand cell. In Western language cultures, this is the typical starting point when people read a grid such as a matrix (Lakoff and Johnson, 2003).

In what follows, we begin by presenting the nine-cell table and its' content.

Table 1. A matrix of societal levels and key agents with examples of key practice issues and research questions relevant to LTCM

Agents Levels	Individuals with a long-term condition	Health professionals	Governmental authorities
Micro	1	2	3
Practice	Living with a long-term condition	Providing educational support for people with a long-term condition	Expecting illness self-management from citizens
Research question	What does it mean in everyday life to live with a long-term condition?	What effects and outcomes do self-management programmes have?	How do authorities formulate expectations of citizen behaviour?
Meso	4	5	6
Practice	Acting as service user representative	Organising and coordinating services	Promoting the quality of services
Research question	How does user involvement influence on service development?	How does service coordination affect delivery?	How do authorities try to influence services' quality and efficiency?
Macro	7	8	9
Practice	User representatives participating in policy decisions	Engaging in jurisdictional disputes	Securing equitable and responsive health services
Research questions	How do user organisations engage in policymaking?	How do health professions negotiate boundaries and jurisdictions?	How do authorities try to ensure equitable and responsive health services?

As suggested, there are three key agents in the field of long-term condition management. The first is the individual with long-term conditions. On the micro-level, a core practice issue is how individuals, given the challenges represented by their condition, manage to live their everyday lives (cell 1). As Corbin and Strauss (1992) describe it, in line with Collins' understanding of the term, the micro-level in this context refers to people's everyday social

life, their life quality and efforts to cope with illness in the local environment at home, community, work-life and leisure activities. The health professional constitutes the second key agent (cell 2). A fundamental micro-level issue is health professionals' provision of educational support to promote patients' self-management and quality of life. The third agent influencing the lives of people with long-term conditions is governmental authorities (cell 3). A central issue here is policy expectations of self-management and healthy living through health promotion policies and programmes.

The three key agents also act on the meso level. Individuals living with a long-term condition may act as service user representatives (cell 4). Based on their experiential knowledge of living with illness, they are involved in co-management, service development and evaluation of services (Coulter, 2011). The target groups of service development could be health professionals, managers or policymakers who are involved in service provision. Users may partake as advisors, consultants, teachers or partners on behalf of user groups and organisations, for instance as members of hospital patient councils involved in planning processes or improvement of service quality (Andreassen, 2018). Health professionals also operate on a meso level (cell 5). In addition to providing self-management support and counselling, they organise and coordinate their services with other professionals and user representatives in different health settings, such as hospitals or municipal health centres. Governmental institutions also direct their attention to the organisational (meso) level (cell 6). A crucial issue concerns the efforts of policymakers promoting methods and tools for quality improvement, patient safety and cost-effectiveness.

Furthermore, user organisations sometimes take an advocacy role on the macro levels of national politics, representing the collective interest of members in advisory bodies and pressure groups. A central concern for health professionals operating on a macro level (cell 8) is jurisdiction and legitimate control over a particular type of work. In cell 9, we focus on the

operation of government authorities on the macro level. A vital issue involves governmental measures to ensure equitable and just health services for their citizens.

Key research examples and current studies

Cell 1: What does it mean in everyday life to live with a long-term condition?

Cell 1 concerns the everyday lives of people with a long-term condition at a micro-level. A central research question is what it means to live with a long-term illness in daily life. A foundational work is Anselm Strauss and Juliet Glasers book *"Chronic Illness and the Quality of Life"* (1975). Strauss and Corbin subsequently developed the chronic illness trajectory framework (Corbin and Strauss, 1992), describing typical stages that people with chronic conditions go through. For instance, the onset of chronic illness often represents a personal crisis or a biographical disruption (Bury, 1982). Several have described how people with illness reconstruct their biographical narratives to make sense of illness experiences and to reconcile the past with the present (Ambrosio et al., 2015, Kleinman, 1988, Frank, 2013). Pivotal studies have illustrated how ones self-identity and the social environment are closely interrelated by exploring culturally and medically contested diagnoses (Jutel, 2011) (e.g., fibromyalgia and chronic fatigue syndrome) and how people manage illness stigmas in social interactions (Armentor, 2017).

Another contribution is the shifting perspectives model of chronic illness (Paterson, 2001). Barbara Paterson argued that living with chronic illness involves a continuous shift between different perspectives of oneself and one's illness, between a focus on suffering and loss on the one hand, to a focus on one's good health and life opportunities on the other. The model has been used as a basis for research and practice interventions directed at patients with a variety of long-term conditions (Giovannetti et al., 2017). A third strand is phenomenological oriented studies of embodied illness experiences. Inspired by Maurice

Merleau-Ponty and his work *Phenomenology of Perceptions* (Merleau-Ponty, 1945/2004), studies from different disciplines and fields, such as nursing, sociology and disability studies, investigate the significance of embodied experiences for understanding what living with long-term conditions entails (Arntzen et al., 2015, Berg, 2020, Wendell, 1996)

Cell 2: What effects and outcomes do self-management programmes have?

Cell 2 concerns health professionals' interactions with patients while providing educational support to individuals with long-term conditions. A core research question posed here is what patients gain from participating in self-management education programmes. Researchers have conducted numerous randomised trials of self-management interventions for people with different diagnoses and conditions worldwide. The Expert Patient Programme, the Chronic Disease Self-Management Programme (CDSMP) and the Flinders model are examples of programmes often studied. Self-management programmes aiming to support employees with a long-term condition in coping with challenges at work have also been examined (Hutting et al., 2015, Detaille et al., 2013). Much research is inspired by socio-cognitive learning theory where the patient's self-efficacy is considered a particularly important mediator for changes in health outcomes (Sanders and Rogers, 2011). Other common psychological concepts used to evaluate the effectiveness of patient education and support have drawn from the health belief model traditions (Rosenstock, 1974), the transtheoretical model of behaviour change (Prochaska et al., 1994) and the self-regulation model (Diefenbach and Leventhal, 1996).

Clinical trials have investigated the effect of self-management interventions on a variety of clinical, behavioural, psychological and health economic outcomes (Stenberg et al., 2016). A recent meta-analysis (Allegrante et al., 2019) covered ten systematic reviews of research on the effectiveness of chronic disease self-management interventions. It concludes that while the majority demonstrate small or moderate effects on a range of outcomes, the

literature still suffers from publication bias, methodological limitations, inadequate descriptions of the intervention and a lack of standardised outcome measures.

Cell 3: How do authorities formulate expectations of citizen behaviour?

In cell 3, an important issue is the expectations and social norms communicated by authorities to individuals on the micro-level. A typical research question asked is how governmental authorities formulate expectations of behavioural change from their citizens. Studies has typically explored governmental and public health discourses about people with chronic conditions or disabilities (Walton and Lazzaro-Salazar, 2016, Veinot, 2010, Tremain, 2005). Using critical social theory within social and political science, they analyse how chronic care policy documents present people diagnosed as chronically ill and construct expectations of self-management behaviour and identity. Several apply the concept of "governmentality" developed by the French philosopher Michel Foucault. "Governmentality" refers to rationality or style of government geared towards making individuals responsible for behaving, following specific norms and towards specific ends (Foucault, 1991).

In LTCM research, scholars have investigated how health political discourses frame non-communicable or chronic diseases as a product of poor lifestyles and risk behaviour, such as smoking, lack of exercise and unhealthy eating habits. Glasgow (2012) argue that the discourses reflect an underlying neoliberal political ideology which aims to shape individuals' health behaviour by emphasising the individual responsibility for maintaining good health. One example is a study by Ravn et al. (2016) of how people diagnosed as chronically ill are presented in Danish chronic care policies. Policy discourses consider chronically ill patients'

active role, lifestyle and health behaviour to be the main factors influencing susceptibility to chronic diseases, attributing an individual responsibility for their health.

Cell 4: How does user involvement influence on service development?

In cell 4, people acting as service user representatives taking part in developing and improving health care services on the organisational level is at the forefront. How user involvement may influence service development is a research question often explored. Scholars have developed conceptual frameworks that identify different forms, levels and dimensions of a user or patient involvement in different health care contexts (Vrangbæk, 2015, Thompson, 2007). They also highlight the implications of various models or measures for ensuring involvement. For instance, Andreassen (2018) outlines an analytical framework of how user involvement at different levels has implications not only for users but also for health professionals' roles and positions. A central finding is that health professionals, depending on the roles of users, are not always positioned as experts or therapists, but sometimes as facilitators, partners, learners or recipients of knowledge and skills.

Empirical research have investigated facilitators and barriers against user involvement, such as degree of scepticism towards involvement, professionals' and users' understanding of user involvement and amount of experience (Coulter, 2011). They have also examined the impact of user involvement on service delivery, e.g., accessibility, utilisation, responsiveness and information (Peikes et al., 2016) as well as providers' and user representatives' knowledge, identity, attitudes and satisfaction (Jones and Pietilä, 2020, Rise and Steinsbekk, 2016). A scoping review-study (Sandvin Olsson et al., 2020) has synthesised research and updated the seminal study by Crawford et al. (2002). The review documents a large variety of impacts, purposes and approaches to user involvement in the literature.

Cell 5: How does service coordination affect delivery?

Cooperation between different health professionals and the integration of care across health sectors at the meso level (cell 5) is a matter of concern in several practice fields. During the 1990s, several organisational models in chronic care were developed. By employing community or system perspectives, the models aimed to guide the delivery of effective healthcare to people with chronic conditions. Also, by drawing mainly on organisational theory and system theory, conceptual literature has developed and distinguished different dimensions of integration in terms of type, breadth, degree and process (Nolte and McKee, 2008).

The Chronic Care Model (CCM) (Wagner et al., 2001) has been applied to a broad spectrum of chronic conditions and is frequently studied (Kadu and Stolee, 2015, Grover and Joshi, 2015). CCM comprises interacting system components such as delivery system designs, decision support and clinical information systems. It has guided the design and redesign of healthcare services in several settings and countries such as Australia, Canada, the UK and Germany.

Systematic reviews have summarised findings from literature on the effects and outcomes of CCM-based interventions on continuity of care and the use of healthcare resources, as well as a range of physical and mental health outcomes (Davy et al., 2015, Yeoh et al., 2017). While these reviews suggest beneficial effects, they also find that few analyse the effects of all components of CCM. In addition, as Sendall et al. (2016) demonstrates, several studies find benefits of the components for some outcomes, but not others (Sendall et al., 2016).

Cell 6: How do authorities try to influence services' quality and efficiency?

In cell 6, a central research inquiry is how policymakers use quality improvement instruments on a meso-level to influence health service quality and efficiency. Quality improvement is central to the health policy agenda internationally. Increasingly, authorities promulgate quality measurement, the ranking of health system performance and the development and use of performance indicators. The efforts are spurred by several issues, such as low quality of services, threats to patient safety, high costs, an ageing population, market failures and a lack of accountability (El-Jardali and Fadlallah, 2017).

Publications have provided overviews of quality improvement policies in different countries (Gauld et al., 2014). A study by Spencer and Walshe (2009) investigated policies and strategies developed in EU member states, demonstrating significant variability in terms of the legal frameworks and policy implementation. However, research related to chronic illness is sparse, and the general literature on health care quality development is primarily related to medical treatment and care. For instance, a systematic literature review of quality indicators for diabetes (Sidorenkov et al., 2011) summarised studies of risk-factors testing and drug treatment (process indicators) and changes in patients' clinical health status (outcome indicators). As argued by Glasgow et al. (2008), although most countries consider self-management and psychosocial factors as essential parts of diabetes care, they are seldom included as quality indicators. Approaches to quality improvement tools, e.g. Total Quality Management, or the Plan-Do-Study-Act cycle developed by Langley et al. (2009), are mostly based on industrial models, general system theory, improvement science and related health disciplines (Harteloh, 2003).

Cell 7: How do user organisations engage in policymaking?
User organisations are vital stakeholders in health care policy decisions, representing the interests and needs of patient groups (Fredriksson and Tritter, 2017) (cell 7). Typically, user

representatives provide official bodies, advisory groups and expert panels with experiential knowledge of what living with a disease or a condition entail. In doing so, they promote their interests and advise on health and care policy decisions on a macro-level.

Research studies, often influenced by Sherry Arnstein's (1969) classical paper on decision-making processes within urban development, examine how patient organisations, health advocacy organisations or health social movements engage in decision-making processes at a societal or political macro-level (Tritter, 2009, Wallerstein and Bernstein, 1988, Baggott and Jones, 2014). Some have explored the origin, development and political strategies of different patient organisations (Mold, 2013, Brown et al., 2010). The activities of organisations focused on a single disease, across diseases or umbrella organisations at national and European levels, have also been examined. For instance, a study by Baggot and Forster (2008) indicates an increase in health consumer and patients' organisations (HCPOs) across European countries, an increased engagement with policymakers and political institutions, and the creation of alliance organisations, bringing together HCPOs across the sector. Research on health activism and health social movements has contributed to knowledge production on the influence of movements on the health care system (Baggott and Jones, 2014). Publications draw on perspectives from a range of disciplines and fields, such as medical sociology, social movement theory, political science and economics, community medicine and community psychology (Landzelius, 2006)

Cell 8: How do health professions negotiate boundaries and jurisdictions?
Health professional groups also operate on a societal and political level. Role flexibility amongst health professions and other health personnel is targeted as a way to counter demands on healthcare provision due to demographic changes, ageing and an increased prevalence of chronic illness (King et al., 2015). A central research question within cell 8 is

how health professions engage in jurisdictional conflicts with one another and claim state-sanctioned control of education, training and professional practice, with implications for long-term condition management. According to Andrew Abbot (1988), an influential scholar within the sociology of professions, many professions demand jurisdiction by claiming a monopoly of recruitment, training, certification and licensing.

By drawing on insights from philosophy, history, political science and various branches of sociology, interprofessional boundary disputes, e.g. between medicine and physiotherapy (Thornquist and Kalman, 2017) or medicine and nursing (Kroezen et al., 2013, Allen, 1997), have been investigated. Some explore how knowledge claims made by professionals are used as a means to gain jurisdictional control. For instance, Kroezen et al. (2013) investigated claims made by medical and nursing professional associations concerning medical prescription. Disagreeing with medical associations, the nursing associations (e.g. the diabetes association) claimed task jurisdiction because of better access to knowledge about patients' general situation.

Cell 9: How do authorities try to ensure equitable and responsive health services?
Finally, attention is drawn towards how government authorities act on a macro level. In cell 9, a crucial question is how authorities, through policies and legislation, try to ensure equitable and responsive services to their citizens. The literature has examined several sub-questions. A central line of studies explores relationships between welfare state characteristics, the health status of the population and health inequalities. A foundational study is Gøsta Esping-Andersens *Three worlds of welfare capitalism* (Esping-Andersen, 1990). To classify and describe modern welfare states, he developed a typology of state models, (i.e., social democratic, conservative, and liberal welfare state) with different characteristics, such as labour market regimes, public expenditures or ways of dealing with social problems and ill

health. LTCM-relevant research has used the typology to explore a range of issues, for instance, relationships between state characteristics and distribution of comorbidities in different countries (Srakar and Rupel, 2019), employment opportunities (Holland et al., 2011) and social capital amongst chronically ill citizens (Vis et al., 2019).

Another line of studies explores welfare policy discourses on user involvement. In different national contexts, scholars have identified dominant policy discourses or justifications for user involvement (Fredriksson and Tritter, 2017, Tritter, 2009). An example is a historical discourse analysis of white papers, reports and action plans regarding user participation in health and social care services in Norway (Askheim et al., 2017). The study identifies several arguments for why user involvement is important: a democracy discourse, a consumer discourse and a co-production/co-partnering discourse. According to the authors, exactly how discourses influence the translation of health and social care policy into practice need further examination.

Discussion

The studies described in the cells contribute to the production of knowledge on the actions of key agents operating on different societal levels. The actor-level framework proposes an appropriate and more extensive contribution to understanding LTCM compared to previous sociological studies and related fields, we argue. To take an example, a well-known model developed to improve the care of patients with a chronic illness is the Chronic Care Model (CCM) (Wagner et al., 2001). It combines a meso-level (i.e., organisational strategies to accommodate patient needs) with a micro-level (providing patient self-management support and community resources). However, it focuses mainly on health professionals as the key agent. A critical omission in the CCM is the identification of user representatives on the meso-level. An important aspect of our framework is the analytical distinction between

individuals living with a long-term condition on the micro-level and individuals acting as service user representatives on the meso-level, engaged in the development of health care services in collaboration with health care professionals. In order to establish a more comprehensive picture, our framework also depicts individuals living with LTCM as forming patient organisations that act on the macro-level of national policy development.

The framework offers a more theoretical take on micro-meso-macro connections compared to previous contributions. Employing insights from historical sociology and welfare economics, De Swann (1988) draws our attention to how patients or clients, professionals and the state are closely connected through relations of influence and power. Influenced by micro-sociological perspectives, Collins' analytical framing encourages scholars to explore further the interlinkages between different actors and multiple societal levels, connecting areas of sociological work.

Given its relational structure, a first advantage of the framework compared to current ones is that it encourages systematic knowledge production across levels and actors in order to address the complexity of LTCM. It improves the ability of LTCM researchers to reflect on the complexity of the field by identifying how study designs overlap between cells. An example is studies cutting across cell 1 and 2 (Foss et al., 2015, Ong et al., 2014). They show how knowledge of the lifeworld and the social networks of patients could improve chronic illness management and partly explain why self-management education does not always have the intended effect. Drawing on concepts from the sociology of chronic illness, Gately et al. (2007) interviewed individuals about their service utilisation before and after participating in a randomised controlled trial of the Expert Patient Programme (EPP) in England. The narrative interview analysis suggests that service utilisation is closely related to everyday habits and routines and needs to be seen as part of patients' lifeworld and biographical trajectories. Other examples are research studies crossing cells 2, 4 and 5. Studies have found

positive outcomes of meso level CCM-interventions (cell 5) on clinical and patient-reported outcomes and costs (cell 2) (Martínez-González et al., 2014, Sendall et al., 2016). Publications have also investigated interrelations between user involvement initiatives on a meso level (cell 4) and patient outcomes on the micro-level (cell 2) (Bitsch et al., 2018, Lynggaard et al., 2017).

A second advantage of the actor-level framework over existing ones is that it broadens the scope of LTCM as an interdisciplinary research field. In particular, policies and societal discourse espoused by governmental authorities as a critical agent (cell 3, 6, 9) are rarely addressed in the journals where LTCM research is typically published, especially studies addressing possible relations between policy initiatives and the actions and positions of other agents. One exception that demonstrates the potential of analysis, including governmental policies, is a study by Bovenkamp and Trappenburg (2011). They investigated the degree of influence of the Dutch government (cell 9) on patient organisations (cell 7), seen from both agents´ point of view. The authors explored official government documents concerning patient organisations as well as empirical research on patient organisations, including studies of how organisations reacted to government policy plans. Findings suggest that despite strong policy support of patient organisations as an important way of strengthening the patient voice in decision-making processes, the government exerted a substantial influence on the structure, activities and ideology of the organisations. Based on the findings, the authors provide a principal discussion of the relationship between government and civil society.

Future studies should also investigate further the relationships between policy development on the macro level and implementation on a meso and micro level. In organising such studies, the actor-level framework will improve clarity in design and help design studies overlapping between cells. A range of research designs, models and methodological tools could be applied to illuminate actor-level interlinkages, such as statistical multilevel research,

multisite ethnography, mixed-method research or document studies. Single case studies of the views and experiences of several key actors, such as patients, health professionals and policy stakeholders, are also highly relevant. One example of the latter is Green et al. (2020) who interviewed key disability policy stakeholders, applying the matrix as formulated by Solvang et al. (2017) as a theoretical framework for a disability policy analysis.

Besides illustrating the breadth of studies relevant to the field of LTCM, we suggest that integrating research knowledge from several scholarly traditions in a common framework can facilitate a multitude of studies of LTCM-relevant processes. The matrix could be used to structure and frame the production of new research knowledge, exploring micro-meso-macro connections in different directions. In doing so, it might establish grounds for increased cooperation between researchers from a wide range of disciplines and research fields, using the framework as a point of departure for understanding and investigating the complexity of LTCM. As Collins (1988a) put it: "The point of making the micro-macro connection is to see how things operate, using the full resources of sociological theory" (Collins 1988a: 244). Our goal has not been to organise sociological theory and research, but to facilitate investigations of how and to what extent processes involving key actors on different societal levels impact on the everyday lives of individuals with long-term conditions. The identification of actors has been based on De Swaan's understanding of the core of the welfare state as the "intersections between the sphere of the state and the lives of individual citizens [where] expert groups have come to occupy monopolistic mediating positions" (De Swaan 1988: 237).

The added value of the actor-level framework for other fields of research should also be stressed. An example is research on chronic disease inequalities and intersectionality (Holman et al., 2020), i.e., how the interaction of social categories such as gender and ethnicity reproduce systems of power and create poor health. While intersectionality scholars have emphasised the politics of health on the macro and micro level, an emphasis on the

interactions and effects of institutional processes on the meso level has not received sufficient attention (Gkiouleka et al., 2018). Applying our framework within this field could expand the understanding of how institutional processes impact on structures of inequality and individuals´ illness experiences and how to facilitate more equitable interventions to different people in different social circumstances.

At last, the matrix broadens the understanding of the practice field. LTCM and related fields, such as rehabilitation, are commonly understood as practice areas covered by cells 2 and 5, i.e., involving the coordination, care and support given by health professionals to promote self-management amongst people impacted by a chronic health condition (Solvang et al., 2017). The broad conception of LTCM conveyed by the matrix suggests that processes involving key actors on different societal levels also shape the management of long-term conditions. It identifies a broader spectrum of knowledge production that health professionals need to consider in their professional practice, ranging from the everyday lives of people on a micro-level, cooperation with user representatives on the meso level, to health policy decisions on a macro level.

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