## Coping with complexity in a wellbeing oriented, task-shared, community mental health setting, Kerala, India

Pallikkuth, Rekha

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# COPING WITH COMPLEXITY IN A WELLBEING ORIENTED, TASK-SHARED, COMMUNITY MENTAL HEALTH SETTING, KERALA, INDIA


Rekha Pallikkuth

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# COPING WITH COMPLEXITY IN A WELLBEING ORIENTED, TASK-SHARED, COMMUNITY MENTAL HEALTH SETTING, KERALA, INDIA

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**Rekha Pallikkuth**

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*Shared first authorship

## Chapter 1
# Introduction

Building on the often-cited statistic that one in four people will experience mental illness in their lifetime, global mental health has been characterized in recent years by a focus on the treatment gap and particular burden of mental illness in low- and middle-income countries (LMICs) (Federici et al., 2016; WHO, 2011; Eaton et al., 2011). Mental health providers and specialists are scarce in LMICs, and are especially low in number in impoverished, rural areas. Given the workforce shortages in these more isolated places, mental health services tend to rely on outdated, de facto care processes, as well as friends, family and spiritual leaders to help patients, often leading to insufficient health outcomes (Among the potential recourses for this dilemma, the application of task-sharing and employment of lay mental health workers (LMHWs) has been brought in as solution from the field of communicable health interventions (Matumba et al., 2013). Task sharing involves the notion that a limited number of specialists can team up with rural (lay) worker teams and community resources, to expand their reach and scale up mental health care provision (WHO,2008). Though the effectiveness of this approach has been shown (Glenton et al., 2021), concerns still exist on the significant variability in the quality of the training, supervision and role specification that LMHWs experience (Matumba et al., 2013). Considering the increasing complexity of tasks that are shared as part of psychosocial interventions, typical protocols and structures to guide lay health workers are proving insufficient to fully support their practice (Matumba et al., 2013; Musyimi et al., 2013). A review by Hoeft, Fortney & Patel, et al. (2017), on task sharing models, gives rise to a number of questions, including the need to clearly specify and understand the relevant tasks that are to be shared, how team members might participate and collaborate, and what task shifting modules are appropriate for various population groups? It also illuminates the importance of clarifying how care might be coordinated between various organizations.

Recognizing the emerging challenges LMHWs experience in combination with the growing need to support lay workers better in their increasingly complex functions and role, this thesis is based on a mixed-methods study of a task-shared organization in rural and semi-rural India over the course of the past 7 years. After relating the key aspects of this problem analysis in further depth, I proceed by introducing the main aim and primary question of this study, as well as an overview of the rest of the thesis.

**Global Mental Health**

Worldwide, mental disorders are a leading cause of debilitation and disability (Orozco et al., 2022; Singla et al., 2017). Approximately 7.4% - 13% of global disability-adjusted life years were attributed to mental disorders according to the Global Burden of Disease Study 2019 (Emadi et al., 2021). It is predicted that depression will become the third leading cause of disease burden in low-income countries by 2030, and the second leading cause in middle-income countries by 2030 (Lund et al., 2018; Eaton et al., 2011).As such, providing appropriate, accessible care by building up systems of psychosocial care to meet patient needs across the board is essential(Søvold et al., 2021). Human rights, including the right to dignity and care, are prioritized in the numerous calls to action on this topic, and these are particularly pertinent in low- and middle-income countries(LMICs) (Patel et al., 2018). The mental health movement in research that arose in response has taken several forms, including multiple targeted series from the Lancet and the WHO's 2013-2020 initiative for mental health(Saxena et al., 2020; Misra et al., 2019; Collins et al., 2011; Patel et al., 2008).Global mental health initiatives now focus not only on reducing the treatment gap for mental disorders, but also promoting mental health and wellbeing across the lifespan through integrated mental health systems (WHO, 2018, Colizzi et al., 2020). Furthermore, attention has been drawn to how mental health conceptualizations, presentations, and health-seeking behaviors across cultures must be considered in order to meet the psychosocial needs of persons with mental disorders(Üzar-Özçetin& Tee, 2020). Concerning this, as well as the extent of the problem, working on mental health in low and middle incomes is a high priority in global mental health.

Nonetheless, most countries experience persistent shortages of financial resources, workers, and infrastructure in the mental health sector (Docrat et al., 2020; Saxena et al., 2007). There is a 19.1% disability rate among individuals with depression disorders, schizophrenia, bipolar disorders, and alcohol use disorders in LMICs (Whiteford et al., 2016; Emadi et al., 2021). In essence, the poorest in our society are at the greatest risk of contracting chronic, debilitating illnesses while being denied income-generating employment opportunities, trapping them in cycle of poverty and holding back further development of the

poorer nations in the world (Mangalore et al., 2012; Krausz et al., 2019). The high burden of mental illness in many LMICs is moderated by social factors such as poverty, urbanization, migration, and lifestyle changes (Yozwiak et al., 2021; Rathod et al., 2017; Lund, 2015).

Mental health 'treatment gaps' define situations in which individuals with psychiatric disorders do not receive adequate treatment despite the existence of effective treatments(Naslund et al., 2019; Raviola et al., 2019; Musyimi et al., 2017).The percentage of people with mental illness who receive evidence-based treatment is very low (Martin et al., 2018).In India, there are between 0 to 3 psychiatrists per 1000,000 people, which is similar to the most populous countries in Asia and Africa (India, Pakistan, Nigeria, and Ethiopia) where the ratio of psychiatrists per 100 000 people is 0.301, 0.185, 0.06, and 0.04 respectively (Weinmann&Koesters, 2016). Poor access to mental health care is exacerbated by an inequitable geographic distribution of these limited resources. Most NGO's and mental health organisations, as well as mental health professionals that work in the country are located in areas that already have better resources, while other parts are left without any help (Patel et al., 2022). Many psychiatrists in LMICs live and practisein urban centers, making them inaccessible to rural populations due to transportation problems (Koly et al., 2022), or, especially well-educated, professionals leave the country all together (Patel et al., 2022). Access to mental health services and health outcomes are further complicated by cultural and religious attributes of illness and conviction systems that influence mental health seeking behavior (WHO, 2021; Renwick et al., 2022). In the absence of good quality care, human rights are regularly reported to be violated, with mentally ill people being chained, beaten, denied participation in the society or work, etc. (Anand, 2021).

**Addressing the Treatment Gap: Lay Mental Health Workers**

In both poor and wealthy nations, lay mental health professionals/lay health workers (a phrase used long before Task sharing) have providedcertain health services (e.g., childbirth, neonatal care, and vaccination) with proven efficacy (Glenton et al., 2021; Kazdin, 2019). As these practices grew in popularity, mental health garnered more attention and spawned its own set of efforts, as early as 2007 (Glenton et al., 2021; Kazdin, 2018;Chowdhary et al., 2014). Task sharing as a particular way of employing LMHWs has been demonstrated in empirical studies to enhance access to services quickly, reach large numbers of people in need, and provide good health outcomes and high levels of patient and counsellor satisfaction (Anderson et al., 2021; Kazdin, 2019; Chorpita, 2019;Kazdin, 2018). It takes the form of allocating service delivery jobs to a diverse group of people with less training and credentials than typical or specialized healthcare employees (e.g., physicians and nurses) (Sayed et al., 2018; Hoeft et al., 2017; WHO, 2008). These efforts are significant because

they deal with essential issues of providing health-care requirements in a range of cultures and under a variety of circumstances (e.g., huge resource restrictions, geographical constraints) (Van Zyl et al., 2021).

Task sharing offers several other advantages, including thecapacity to be used in different nations and for different sorts of psychological needs (Hoeft et al., 2017). The adaptability of the approach allows for stakeholder consultation, attention to regulatory requirements and integration into existing health-systems (Troup et al., 2021). Task sharing is a delivery methodology that aims to give treatments on a big scale and reach people who would otherwise go unnoticed (Kazdin, 2019). This may make task sharing easier to adopt in LMICs, where infrastructure (e.g., from local and national government, accrediting bodies) may be more willing to change or at least tolerate change (Troup et al., 2021). The model's established ability to offer physical and mental health services, to exhibit favorable effects on a broad scale and in a variety of conditions are all factors in its popularity (FusarPoli et al., 2021). That being said, there are numerous concerns that arise in relation to this strategy as well, ranging from limited research on the long-term sustainability of task-shared psychosocial interventions to the great variability of applications and the associated challenges for LMHWs themselves (Kazdin, 2019;Hoeft et al. 2017;Matumba et al., 2013;).

**Challenges of Working with LMHWs**

Precisely because of the broad applicability of task-sharing and LMHWs, numerous challenges also arise. These relate primarily to role ambiguity, affiliated insecurity, inconsistent approaches to training and supervision and lack of integration in, or coordination with, the health system. Concerning the first issue, the great variability in the roles of LMHWs was noted by Matumba et al.(2013) in their literature review, which shows that a large body of literature identifies the lack of clarity of expectations and boundaries to the LMHW role which creates uncertainty and insecurity (Li et al., 2021; Musyimi et al., 2017; Matumba et al., 2013).This links directly to the fact that task sharing in mental health was inspired by the way in which this is done in communicable disease management, resulting in protocols created for LMHWs witha limited scope that do not capture the complexity of tasks and responsibilities LMHWs taken on (Goh et al., 2022; Chau et al., 2021;Musyimi et al., 2017). This lack of clear roles also leads to issues in the treatment of clients or patients as there is skepticism within communities regarding the shift from the more typical tasks of lay health workers, which in turn leads to insecurity on the part of the LMHWs (Musyimi et al., 2017). Though it is well established that structures of training and supervision can do much to address insecurities, the diversity of the field persists in this aspect as well, where for instance initial training periods vary anywhere between one week and six months

(Matumba et al., 2013). Indeed, numerous recent interventions are still developed without attention to ongoing guidance and support (Li et al., 2021; Musyimi et al., 2017). A recent review by Le, Eschliman&Grivel et al. (2022) identified barriers to task sharing in mental health at various levels of the health organization, reflecting again a range of difficulties related to client characteristics, organizational structure and materials, interventions (including clear ideas about time, frequency, etc.), family (including stigma), health providers (e.g. identity and role issues) etc.) and society (e.g. economic setting of interventions, as well as historical-political dynamics). Finally, the shifting roles and task complexity of LMHWs is also further complicated by a lack of integration with existing community structures and health systems resulting in problems in coordinating care(and e.g. long waiting lines), conflict with other healthcare practitioners and limited sustainability of interventions after the study period (Goh et al., 2022; Musyimi et al., 2017; Matumba et al., 2013).

**Problem Statement and Aim**

The problems that are described in the section above tie into the need to improve task sharing practices in order to deliver quality mental health care that is oriented towards the overall wellbeing of people. This is particularly relevant in contexts of poverty, isolation and adversity, as mental health care and wellbeing are independently related concepts (without psychological, social and mental emotional wellbeing, it is hard to be mentally healthy). Mental wellbeing reduces risks of future prevalence of mental illness and is thus an important aspect of sustainable recovery and personal development (Bohlmeijer&Westerhof, 2021). It makes wellbeing a vital outcome of mental health care, that is focused on holistic, balanced, strength-based care approaches. In view of the objective to support mental wellbeing, and in recognition of the need for effective strategies to address the mental health treatment gap in low resource settings, the well-established potential and efficacy of task-sharing through lay mental health workers, and the persistent challenges related to the complexity of community mental health practice, this thesis poses the following research question:

*How can we understand and address the complexity experienced by LMHWs conducting wellbeing-oriented community mental health interventions in low resource settings in India?*

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## Chapter 2

# Theoretical Concepts

*How can we understand and address the complexity experienced by LMHWs conducting wellbeing-oriented community mental health interventions in low resource settings in India?*

This chapter presents the relevant concepts and background literature for this thesis required to explore the topic of complex experiences related to wellbeing-oriented community mental health interventions. The conceptual framework arising from the theory will be used to develop the sub-questions, design and analysis structure of this thesis. This chapter begins by defining mental health and the nature of a wellbeing-based approach, beginning with the biopsychosocial and a social developmental model as starting point, and then continues to consider theoretical approaches and understand the complexity that comes with mental health practice and organization. It concludes with an exploration of theoretical approaches aimed at understanding the support and education of LMHWs.

### Mental Health and Well-being

For scholars studying mental health care, the concept of complexity is a familiar one. The intersection of various disciplines in mental health, including political, social, economic and historical dimensions, as well as health systems' bureaucratic, regulatory and structural complexities make the organization of mental health incredibly diverse, complex and challenging(Sangiorgi et al., 2022; Sangiorgi et al., 2019).These challenges are exacerbated by the resource constraints and infrastructural issues of low- and middle-income countries. For this reason, and to improve geographic accessibility and acceptability of quality care, the WHO has recommended the development of comprehensive community-based mental health and social care services (Matsea et al., 2021; Matsea et al., 2018).

They further argue the need for a multisectoral approach to support individuals at different stages of their life-course and development stages, whilst also being mindful of and addressing human rights such as employment, housing and education. Greater collaboration with "informal" mental health care providers, including families, as well as religious leaders, faith healers, traditional healers, schoolteachers, police officers and local nongovernmental organizations, is also needed. Another essential requirement is for services to be responsive to the needs of vulnerable and marginalized groups in society, including socioeconomically disadvantaged families, people living with HIV/AIDS, women and children living with domestic violence, survivors of violence, lesbian, gay, bisexual and transgendered people, indigenous peoples, immigrants, asylum seekers, persons deprived of liberty, and minority groups among others within the national context (Singh, 2021). Not only does service integration require the acquisition of new knowledge and skills to identify manage and refer people with mental disorders as appropriate, but also the re-definition of health workers' roles and changes to the existing service culture and attitudes of general health workers, social workers, occupational therapists and other professional groups. Furthermore, in this context, the role of specialized mental health professionals needs to be expanded to encompass supervision and support of general health workers in providing mental health interventions (Rosen et al., 2020).

The above challenges are reasons why theoretical debates on the essence and objective of mental health remain ongoing. The most recent revision on the definition of mental health, where for instance the WHO conceptualizes it as *"a state of wellbeing in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community"* (WHO,2001),represents a move away from more bio-medical visions of mental health. It is a consequence of increasing recognition of mental wellbeing as broader and more encompassing notion of what to work towards.

Indeed, definitions of the field have been expanding to consider the implications of the broader range of human factors related to various social determinants of health in which the role of education, neighborhood, access to nature and meaningful work among other things, is brought into the picture (Fisher, 2022). Where pathology-focused definitions of (mental) health as the absence of illness direct the field to focus on access to treatment, there is a growing call for complementary research and practice on *wellbeing* beyond the reduction of symptoms (Thieme et al., 2015). Empirical research has shown that reduced symptoms and a positive mental state are not directly linked (ibid), whereas mental wellbeing can contribute to better mental health outcomes and function as preventive care (Benoit &Gabola, 2021). There are numerous studies showing the positive impact of e.g.

people's flexibility to cope with adverse events as part of wellbeing, which can help to prevent severe psychiatric illnesses (Dawson & Golijani-Moghaddam, 2020; Klanker et al., 2013), people's participation and role in social networks (Heinz & Kluge, 2011)or of a good body-mind-environment harmony which can help to prevent problems such as eating disorders, self-mutilation (De Oliveira Gonzalez et al., 2020; Fuchs & Schlimme, 2009), etc. Developing precise definitions of the dynamic and multi-faceted concept of wellbeing have presented a significant challenge, especially given the socially complex and cultural-specific defining of wellbeing more generally. Nonetheless, the broader scope entailed by the concept of wellbeing has been established in the literature, and numerous models exist to grapple with the diversity of factors that encompass mental wellbeing, of which I will discuss two: the Biopsychosocial model and the Complex Adaptive System (CAS) concept.

**The Biopsychosocial Model**

The Biopsychosocial Model of mental health was first proposed by George L. Engel in 1977, asa more comprehensive model to explain psychiatric disorders (Engel, 2017). The hope was that this model would move mental health professionals away from more reductionistic and static notions commonly held in mainstream medicine (Double, 2021). He proposed that, although genetic factors, for instance, should be considered seriously, psychosocial factors have a significant impact on the condition humane. Since Engel, the model has gained wide acceptability across the globe in the field of mental health. It systematically explains the complex interplay of three major dimensions (biological, psychological, and social) in the development of psychiatric disorders, where its primary innovation was in arguing to consider how in terms of mental health, people do not suffer the way isolated organs do, but rather must be seen as a complex whole. This provided a more holistic, empathetic approach to psychiatric illness, which accommodated the way that one's emotional state, personality, environment and social parameters influence the manifestation of illness in an individual (Engel, 2012; Bolton & Gillett, 2019). It also embraced the notion that the relationship between patient and physician was an important point of understand someone's experiences and especially their healing, and put more focus on the patient as subjective being (Guidi&Traversa, 2021). However, as a result of the pace of changes in the field of mental health over the past few decades, institutional resistance to such a systematic reconfiguration of treatment paradigms has been considerable (Ghaemi, 2020; Roache, 2020). For one, the biopsychosocial model assumes more deterministic, causal and linear relationships between the various dimensions of a person than can be attained in practice. Indeed, the model gave rise to a  dirt of studies that contribute to our understanding of the causes and course of certain illnesses, rather than understanding its complex, and more chronic nature. Interventions, then, can only

stimulate, yet not determine certain outcomes, which are not fully acknowledged by the model (Knapp & Wong, 2020).

Thus, while the model considers social factors in the development of an individual's ill health, it does not cover the complete spectrum of human subjective experience, as well as the organization around the treatment and recovery process. For instance, the role of more systematic factors such as education, housing and income insecurity, which are strongly associated with mental illness (Lund et al., 2018) tend to be ignored. Furthermore, the consideration of diverse factors as significant only in the case of those experiencing mental illness neglects the broader spectrum of mental health within the framing of well-being, such that community-wide challenges, including poverty, do not feature in analysis.

**Community-based Mental Health**

While the Biopsychosocial model is still used to understand mental functioning and interventions, community-based mental health (CBMH) was developed to consider community-level factors that predict, moderate, prevent and help to heal mental disorders (Cassidy & Cassidy, 2018). The approach has been widely used, especially in LMICs, as a way to address problems around mental health issues that occur at a community-level, and also promote accessibility, acceptability, affordability and scalability of mental health care responses. The approach ties in factors of discrimination and stigma that occur at a community and societal level, which can impact mental health and treatment outcomes and hinder sustainable recovery (Carrara et al., 2022). Finally, CBMH is commonly applied as a mental health service perspective, involving community-members, family members, and other care providers in a larger system of decentralized care (James et al., 2020). According to the World Psychiatric Association (WPA), guidance on CBMH should be oriented towards having a population focus (rather than adopting a solely individual treatment perspective), peer support for service users, treatment initiation in primary care facilities and communities, supervision of professionals, collaboration between partner groups, and networks across various public services, as well as traditional or religious healers (Thornicroft, Deb & Henderson, 2016).

CBMH, although adopted widely, is also fraught with challenges that occur at different levels of organization. A review study (PRIME) conducted by Hanlon et al. (2014) on CBMH in five different LMICs, including India, brought up various obstacles for mental health coverage, of which some included the lack of proper supervision of mental health care specialists, lack of mental health literacy among workers, lack of, or inappropriate models for, multi-sectoral cooperation and coordination, and insufficient collaboration

with various local partners, just to name a few. A variety of studies, similarly, point to the complexity involved in introducing, integrating and maintain CBMH care in various geographical contexts, due to the many partners that are involved, the high level of uncertainty of outcomes and deliverables, the resistance to change in larger organizational systems, potentially low staff morale, inadequate training possibilities, lack of structure, and the high level of coordination and cooperation that is required to have care services run smoothly (e.g. Thornicroft, Tansella& Law, 2008; Maulik, 2018; Dos S. Ribeiro et al., 2019; Anyebeet al., 2021).

### Community Social Development

Beyond the narrower emphasis on mental health covered in most individual focused models, this thesis further considers the field of social development with particular reference to the social determinants of (mental) health. The social determinants of health are defined as "the conditions in which people are born, grow, live, work, and age" (Lund et al., 2018). In relation to health inequities, these determinants refer for instance to adverse childhood experiences, limited educational opportunities, low income, social exclusion, poor nutrition and poor housing, among others. Such factors are further frequently associated with lack of access to mental health care and social support (Wang et al., 2018). Being social, all these factors are interlinked so that for many people there will be multiple adverse influences, not just one (Ahmed et al., 2022). The area of work and research that addresses these factors within communities, though not necessarily with the explicit goal of improving mental health, is referred to as 'community social development' (Mullen et al., 2021).Social development can also be conceptualized as "an educational process which stimulates consciousness among people in order to be aware of their capabilities to address prevailing situations or realities in participating communities in the society"(Ndem et al., 2020).Keys to this are public awareness, participation and agreeing on development goals to be achieved and sustained. Given the interlinkages between different social determinants and the unpredictability of community behavior, social development is equally a field of significant complexity as CBMH, such that both require a theoretical perspective that can help translate such variety of factors dynamically and flexibly to a complex adaptive the system functioning.

### Complex Adaptive Systems

On the subject of the organizational complexity that accompanies the above theoretical shifts, some scholars have been turning to system thinking and complexity approaches such as the Complex Adaptive Systems (CAS) approach (Uhl-Bien, 2021), partly also to consider

the incredibly complicated organization that is required to deliver mental health care to people who suffer (Ellis et al., 2017). The approach is defined primarily by its rejection of reductionist approaches to complex problems (including e.g. how to manage high quality mental health care), which treat individual parts of a system as distinct, rather than understanding it as including interdependent, variable and random relationships and actions in a bigger whole. Thus, while the biopsychosocial model, as described before, presents a move away from reductionist perspectives on the functioning of mental health in the individual, and the CBMH approach helps to tie in community-level factors and response strategies, the CAS model helps to understand the more complex dynamics of people that work together in a mental health system. An often-discussed problem within systems of care is the tendency for fragmentation, and for professional actors and groups to work alongside each other, rather than collaborate, functioning inside their own 'silos' and working with their own models of care (Pomare et al., 2018). It is in such systems of care that patients are often confronted with long waiting lines, frustrating processes in which they need to retell their story multiple times, and in which overall communication and collaboration is lacking. Patients in such systems would often get lost. The CAS approach was applied into health systems research to help understand the interactions, rather than components, as the salient aspects of any health system(James-Scotter et al., 2021), and thus improve the mental wellbeing of patients, by focusing on service partnerships and coordination.

CAS explains systems, in this case healthcare organizations and the communities they serve, as having a number of specific characteristics (Covvey, 2018). Firstly, systems are made up of active agents that are understood both as actors and information processors. In mental health care systems, agents include individuals (e.g. mental health professionals, community mental health workers, clients) and services or organizations (e.g., hospitals, community clinics, mental health branches of health departments, NGOs, e-mental health services). Secondly, it considers the interactions and hence interconnections between actors, which occur across and within multiple levels of the system. For instance, policymakers can interact amongst themselves, but also with health professionals within different sub-systems which will have different cultures, networks and hierarchies).Agents influence each other, directly or indirectly through these connections, and their behaviors as a result co-evolve. Thirdly, their behaviors are understood as non-linear and dynamic, as they are context dependent, and in part because agents self-organize around a core driver. Self-organization is understood as the ostensible 'managing' of individual roles based on internalized principles, rather than the top-down carrying out of implemented policies. Finally, the resulting behavior of the system is emergent, arising as a result of these characteristics and complex social patterns in the local context (e.g. Ellis et al., 2017).

CAS has become particularly relevant in the context of Indian mental health, as care is increasingly decentralized and, in general, relatively underdeveloped. Alderwick et al. (2021)rightfully explain that larger LMICs such as India and Nigeria, tend to be at a stage where good health outcomes are not easily generated (due to lack of guidance and resources), but can even do more harm than good when being guided by health systems that are rigid and insensitive to contextual factors. The idea to consider health systems as CAS is that it allows for LMICs to slowly evolve towards a desirable and workable way of working as part of a longer journey, by deliberately incorporating effective feedback loops that counteract and corrects malfunctioning parts of the system.

**Managing complexity in a mental health system; leadership, task sharing, and technology**

In relation to complexity theory, the operationalization of theoretical trends with regards to community clinics requires explicit definition. As such, this section covers a few dimensions through which LMHWs can be understood in relation to complexity theory, starting by consideration of complexity leadership, followed by the concepts of empowerment and self-efficacy and concluding with reflection on task-sharing and technology as they relate to these.

**Complexity leadership, empowerment, and self-efficacy**

Regarding individual agents (e.g. LMHWs) and their role in sustainable change within a system, one approach that arises is that of complexity leadership, which focuses on emergent processes within complex systems and suggests that leadership needs to operate at all levels in a process-oriented, contextual, and interactive fashion (Uhl-Bien, 2021).The model emphasizes the importance of social interactions within organizations yet also illustrates the key role of leaders in enabling change. It has been applied in organizational settings to comprehend how effective organizations can gain a competitive advantage through leadership strategy and direction. Complexity leadership recognizes the dynamic interactions that take place within organizations as they change, create innovation, and evolve with a focus on complex relationships and network interaction. Several scholars agree that complexity leadership theory is a form of shared leadership in which the leadership position is not concentrated in one person, but shared among many. Moreover, in complexity leadership, any agent involved in collective action can manifest and influence those dynamics, which enables innovation. Leadership in this complex adaptive system is regarded as a behaviour, or set of behaviours, that emerges from the interaction among individuals and groups throughout the whole organization, and not a role or function formally assigned to an individual (Bunders et al., 2019; Benazir &Suryandari, 2019;Belrhiti

et al., 2018). Leadership in complex situations or organizations requires adopting a complexity lens (Ellis et al., 2017), which implies a transformational, collaborative, reflective and relationship-based leadership style. In that sense, complexity leadership also considers the idea of horizontal leadership, which contrasts to traditional hierarchies in emphasizing the agency of individual actors.

Closely intertwined with the concept of complexity leadership is that of empowerment, where individuals experiencing psychological empowerment are better equipped as leaders to deal with dynamic situations. Psychological empowerment correlates closely with work engagement and leadership (Shi et al., 2022; Fawehinmi et al., 2022). Studies have shown that positive impact of psychological empowerment on work engagement is mainly realized through four dimensions: meaning, competence, self-determination and work impact (Monica &Krishnaveni, 2019). Creating an environment that fosters meaningful work experiences encourages a person's sense of competence, self-determination (autonomy) and an awareness of the impact of their work, which in turn promotes organizational benefits (Macsinga et al., 2014). However, though these four dimensions provide a framework for what is needed to achieve complexity leadership, it does not provide guidelines for its realisation. For this, Bandura's concept of self-efficacy provides more clarity. The concept of self-efficacy as defined by Albert Bandura (1999), relates to people's beliefs in their capabilities to exercise control over their own functioning and over events that affect their lives. One's sense of self-efficacy can provide the foundation for motivation, well-being, and personal accomplishment. People's beliefs in their efficacy are developed by four main sources of influence, including (i) mastery experiences, (ii) vicarious experiences, (iii) social persuasion, and (iv) emotional states. High self-efficacy has been linked with numerous benefits to daily life, such as resilience to adversity and stress, healthy lifestyle habits, improved employees' performance, and educational achievement.

Self-efficacy beliefs influence the choices individuals make, degree of challenge of their goals and their level of commitment to personal goals. Employees with low levels of self-efficacy will chose less challenging goals for themselves and vice versa (Ma et al., 2021). People learn, perform and exert effort at levels consistent with their self-efficacy beliefs. Persons with high self-efficacy will work hard to learn how to perform new tasks, because they are confident they will be successful. Self-efficacy beliefs influence how long persons will persist when engaging with challenging tasks. Persons with high-self-efficacy will persist longer in the face of difficult tasks because they are more confident that they will learn and successfully execute the task (Kundu, 2020). Self-efficacy beliefs influence how a person will respond to disappointment. Individuals who have higher self-efficacy will recover faster from setbacks than those who don't. Self-efficacious beliefs influence the physio-

logical experience of stress( Ma et al., 2021; Kundu, 2020). Individuals with lower levels of self-efficacy may experience a more intense physiological stress reaction in the face of challenges than those who have higher levels of self-efficacy. This in turn can affect their performance on the task and the degree to which they persevere in the face of the challenges. Thus, it can be seen how self-efficacy and empowerment shape the potential for complexity leadership. It follows that it is necessary to consider how the ways of learning self-efficacy might be shaped in terms of the working circumstances, training and supervision of LMHWs.

**Task Sharing, Training, and Supervision**

Given the importance of community approaches to mental health, and the dominant development that task sharing has played in CBMH, it stands to reason this practice and its associated training for LMHWs must be discussed. As established in the introduction, task sharing is a method by which to make use of limited resources by redirecting the time of mental health specialists from direct service provision to training, supervision and consultation of lay mental health workers (LMHW) (Kazdin, 2018; Kazdin, Alan & Rabbitt, 2013). Famously quoted by Vikram Patel (2015, p. 23), who pushed the agenda for including lay workers in mental health work, 'mental health is too important to be left over to professionals alone'. The idea of involving non-professional staff in the delivery of mental health care has recently been labeled as 'task sharing'. Though the efficacy of task-shifting has been strongly supported in the literature, most approaches are limited to standardized and simplified treatment protocols, and it is well established that good training is essential to this efficacy (Chibanda et al., 2016a; Chibanda et al., 2016b). Additionally, numerous studies have identified supervision and the quality thereof as significant for job retention and motivation of LMHWs (Muthuri, et al., 2020; Kok et al., 2018; Källander et al., 2015; Greenspan et al., 2013). Yet the high variation in quality and intensity of supervision experienced by LMHWs, ranging from ad-hoc check ins to structured bi-weekly meetings indicates a need to consider the meaning of 'good supervision'(Musoke et al., 2019; Van Ginneken et al. 2014; Van Ginneken et al. 2013; Patel et al. 2010). For instance, shifts towards so called supportive supervision emphasize best practices of observation, performance monitoring and constructive feedback (Kok et al., 2018), and better fits with the ideas of empowering leadership as outlined above. Indeed, underuse of existing research in training and supervision of LMHWs is apparent as for instance no programs have thus far incorporated adult learning principles in their development (Alhassan, 2012; Mayfield-Johnson, 2011). As such, it can be seen that more comprehensive approaches to training and supervision are required for successful task sharing.

## Technology and Mental Health

In the interest of effective use of limited resources, and in acknowledgement of the resource intensive nature of good supervision this thesis also takes consideration of the potential of digital solutions in community healthcare. A number of studies have found the potential of digital solutions in a range of community health actions from health promotion and stigma reduction to AI guided medical interventions (Naslund & Deng, 2021; Xue et al., 2020;Ramanadhan et al., 2013). These interventions occur within the wider context of the convergence of digital technology with health, living and society, such that expansions in other areas of health can be repurposed and developed for a variety of care needs (Kaonga& Morgan, 2019). Furthermore, even more 'low tech' solutions such as phone calls can provide a means for treatment, education and building trust in communities (ibid). However, while the potential and range of solutions has been well established, it has been noted that on its own technology is not a solution or cure-all for an ailing health system by introducing technologies as agents in the CAS may evoke different responses from communities and organizations. As such it is important to guard against reductive or techno-optimistic approaches that are not sensitive to context and needs (Shuvo et al., 2015).Nonetheless, approaches that place contextual needs at their heart are possible, for instance in relation to psychotherapy training and supervision formats being moved online to allow for greater interaction with supervisees (Thippaiah et al., 2020; Shuvo et al., 2015; Rousmaniere et a., 2014).

## Research Questions

Having established the need to consider both mental health and mental health care from a more holistic and thus complex perspective, this thesis poses as its first sub-question:

*What challenges and opportunities arise from the use of complexity theory approaches for the organisation and practice of community clinics and LMHWs?*

To navigate complexity, it has been established that complexity leadership is required, which emphasizes interactions over individuals and thus requires a baseline of empowerment of LMHWs. As such the second question is established as:

*How can LMHWs be empowered to productively self-organize and interact with other actors in the complex adaptive system of mental health care in mutually beneficial ways?*

Finally, in recognition of the dynamic nature of any complex system, as well as the importance of training, supervision, research and technology in establishing sustainable community interventions, the third sub-question is:

*How can training, supervision and practices of LMHW be continuously adapted through best practices and technology, without compromising the richness of complexity and community engagement?*

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Chapter 3

# Research design and methodology

The previous chapters present the current knowledge gap regarding task-sharing in a complex adaptive system (CAS) of a low-resource community setting, in this case in India. Chapter 1 outlined the global prevalence and burden of mental illness, the Mental Health Treatment Gap and both the potential and challenges of deploying task-sharing as a solution. Chapter 2 considered the theoretical concepts that guide the thesis and presented the research sub-questions. This thesis employs a theoretical framework that conceptualizes the task-sharing in Complex Adaptive System (CAS), including both challenges and solutions, and takes account of support to caregivers in a framework that considers the social and economic background of patients' families, their problems and strengths in a community setting. This chapter describes the research methodologies used, first reiterating the main research question and sub-questions, followed by the study environment and the study population. The research strategy and methodology are then discussed. Finally, the authenticity of the data is set out, as well as some ethical issues.

## 3.1 Research Questions

As stated in Chapter 1, the main aim of this thesis is to understand and address the complexity experienced by LMHWs conducting wellbeing-oriented community mental health interventions in low-resource, rural community setting in the Indian state of Kerala.

In doing so, we hope to contribute to complement the knowledge related to mental health to serve wider communities, by analysing the practices of lay mental health workers (LMHWs) in a 'real-life' task-shared community setting in different parts of Kerala. Based on the aim to explore challenges, and using the complex adaptive system (CAS) con-

ceptual framework to do so, the main research question was formulated, along with three sub-questions, to guide all subsequent work – especially at the study level:

Sub-question 1: What challenges and opportunities arise from the use of complexity theory approaches (like CAS) for the organisation and practice of community clinics and LMHWs?

Sub-question 2: How can LMHWs be empowered to productively self-organize and interact with other actors in the complex adaptive system of mental health in mutually beneficial ways?

Sub-question 3: How can training, supervision and practices of LMHWs be continuously adapted through best practices and technology, without compromising the richness of complexity and community engagement?

Table 3.1 summarizes how each chapter and its findings are related to our research questions.

This chapter presents the overall research approach and design that steered the thesis, and the specific research methodologies used to answer the main research objectives and questions.

*Table 3.1. Sub-questions, Research Questions, and Methods*

| Thesis Chapter | Sub-question (thesis) | Research question (article) | Methods |
|---|---|---|---|
| 4. **Implementation of a volunteer-based community mental health programme – evaluation using a Complex Adaptive System (CAS)framework** | RQ 1: What challenges and opportunities arise from the use of complexity theory approaches to the organization and practice of community clinics and LMHWs? | What are the factors strongly influencing the outcome of the impl Submitted). ementation of a community mental health program in different settings using a CAS framework? | Qualitative |

| | | | |
|---|---|---|---|
| **5. Community-based 5. Psychosocial Intervention for Persons with Severe Mental Illness in Rural Kerala: Evaluation of training programme of Lay Mental Health Workers** | RQ 2: How can LMHWs be empowered to productively self-organize and interact with other actors in the CAS of mental health in mutually beneficial ways?<br>RQ3: How can LMHWs' training, supervision and practices be continuously adapted through best practices and technology, without compromising the richness of complexity and community engagement? | How can we develop and evaluate the training program of LMHWs in Community-based Psychosocial Intervention for Persons with Severe Mental Illness in Rural Kerala | Qualitative |
| **6. Design and evaluation of peer supervision for community mental health workers: a task-sharing strategy in low-resource settings** | 1. How can LMHWs be empowered to productively self-organize and interact with other actors in the CAS of mental health in mutually beneficial ways?<br>2. How can LHMWs' training, supervision and practices be continuously adapted through best practices and technology, without compromising the richness of complexity and community engagement? | How the peer supervisees acquire self-efficacy and performance outcomes through the process of peer supervision, when working in a task-shared community mental health setting? | Qualitative |

| | | | |
|---|---|---|---|
| 7. **Empowerment of lay mental health workers and junior psychologiststhrough online in a task-shared, rural setting in Kerala, India** | 1. How can LMHWs be empowered to productively self-organize and interact with other actors in the CAS of mental health in mutually beneficial ways?<br>2. How can LMHWs' training, supervision and practices be continuously adapted through best practices and technology, without compromising the richness of complexity and community engagement? | How was the process of empowering supervision through online in the context of junior psychologists and lay mental health workers in rural India, and how can we explore challenges, learning from challenges, and being empowered | Qualitative |
| 8. **Towards integrated mental health care; A case study on an evolving organization in Kerala, India.** | What challenges and opportunities arise from the use of complexity theory approaches to the organization and practice of community clinics and LMHWs? | How individual bio-psychosocial factors and community-level social determinants need not be treated as distinct when operating from a place of social embeddedness, complexity and wellbeing | Qualitative |

### 3.2 Study context

The research was carried out in the context of the Mental Health Action Trust (MHAT), a non-government organization (NGO) based in Kozhikode in the Indian state of Kerala. For the past 13 years, MHAT has offered free mental health services to economically disadvantaged people in 11 districts of Kerala. Local groups under the direction of the MHAT team have offered comprehensive multidisciplinary care with the assistance of LMHWs. The services provided by LMHWs, who serve as the backbone of community-based work, is one of most important components of the organization. Their responsibilities include everything from routine domiciliary supervision to psychological treatments and rehabilitation. Though it is established in terms of socioeconomic parameters, and although Kerala was the first to draw up a mental health policy (Sagar, Dandona&Guruaj, et al., 2020), Kerala presents a particular challenge for mental health service provision. As a general overview

of the region, Kerala has population of 33,4000,000 with a male:female ratio of 1,000 to 1,091. Kerala has fairly highliteracy (96.11% for men and 92.07% for women) and a significant trend towards urbanization. Kerala has been among the top five states in India on various measures, including, for instance, top achievement towards reaching the United Nations Sustainable Development Goals (SDGs) for three years running. According to the Multidimensional Poverty Index, the headcount ratio for Kerala was 0.71%, the lowest of all states in India. Furthermore, the India Skills Report 2022 ranks Kerala third in terms of the employability of young adults. However, compared to the national average, Kerala had approximately three times as many people with mental illness per 100,000 head of population. Furthermore, according to the latest available data from 2015 to 2016, there were fewer than 0.001 hospitals offering mental health care per 10,000 people in the state. Only seven of the 22 medical colleges in Kerala provided psychiatric care; a mere 0.023 sub-district hospitals per 10,000 people offered outpatient and inpatient mental health services, and no primary medical care facilities did so formally. Nonetheless, the data on human resources dedicated to mental health has been compared with the national average and estimated need, which indicates that the state has 400 psychiatrists, corresponding to a coverage of 0.12 per 10,000 people. This is overall better than the national average (0.067), but still falls dramatically short of the recommended coverage for mental health in India. It is consistent with data on other mental health professionals, such as clinical psychologists, but the availability of psychiatric social workers in Kerala was lower than the national average and considerably below the estimated requirement. Compared to other countries, Kerala is also falling far behind regarding the accessibility, coverage, and quality of mental health care organizations (Joseph et al., 2021). A study conducted by Joseph,Sankar& Nambiar (2021) showed that Kerala experienced a rapid rise in mental health morbidity between 2002 and 2018, probably due to a combination of shifting social patterns (e.g. more nuclear families, more loneliness, higher divorce rates), as well as unemployment, gender inequalities, economic migration, pressure on students, addiction, etc. Although improvements in relation to human resources and infrastructure appear to be on the way, to date they are still deemed inadequate (Joseph et al., 2021).

The concrete study context of this study lies in the geographical location of Palakkad, Kozhikkode, Malappuram, Kasargode, Alappuzha, Ernakulam, Thrissur, Thiruvananthapuram, Idukki, Kottayam and Vayanad districts of Kerala. There are two types of clinics: samagram clinics (5) and other clinics in which MHAT provide services with the help of local community partners (52 clinics; governmental or non-governmental) and all the services are offered on a weekly basis with the help of professional and non-professional teams.  In samagram, MHATworks alongside the social development team, focus-

ing on wellbeing of overall community and in others, the focus is on wellbeing of individual patients and family. Samagram is a relatively recent model in MHAT.

### 3.3 Study participants

Four different groups were considered in the data collection, each of which is addressed in turn. Of note is that four particular community clinics were studied in their entirety in Chapter 4, on using a complex adaptive systems perspective.

*Volunteer Lay Mental Health Workers*

Volunteers whoparticipated in this research were all identified through the community-based psychosocial intervention training run by MHAT in 2016. A total of 17 volunteers from the four northern districts of Kerala (Wayanad, Kohikkode, Malappuram and Palakkad) participated, having met the criteria of at least 10 years of formal schooling and at least one year as a volunteer in a MHAT community clinic. Although four participants dropped out during the process, 13 completed the training and participated in the data collection.

*MHAT Lay Mental Health Worker staff members*

A total of 12 trained LMHWs were recruited in later stages as part of research on clinical supervision. Within this group two senior LMHWs took on the role of peer supervisor during one aspect of the research, and all participated in the 12 sessions of online supervision over the course of six months.

*Mental Health Professionals*

The mental health professionals who participated in the interviews, training and supervision are employed at MHAT and included psychiatric social workers and psychologists. The supervisors were all clinical psychologists, with over 12 years'experience in task-shared, recovery-oriented community mental health services.

*Local community partners, patients, and family members*

Given the embeddedness of MHAT within local communities, some aspect of consultation with local partners and relevant community members took place during the various phases of the research, for instance, as part of a (co-designed) training programme. This also encompasses theAccredited Social Health Activist (ASHA) workers, community nurses and community volunteer leaders who participated in various parts of the research.

### 3.4 Research approach

This research was conducted with an emphasis on two core methodological considerations, including a case-study approach, with a focus on a bottom-up methodology for data collection. The method supporting was mainly qualitative. After detailing the research approaches, this section briefly covers the methods of the chapters focused on three broad categories: organizational, training and supervision.

*Case-study approach*

As mentioned earlier, this research is rooted in the real-life setting of several MHAT clinics in the state of Kerala, and draws its data from several years of exploring the practices in this particular setting. The research conducted in this context can be described as a case-study approach as it 'generates in-depth, multi-faceted understanding of a complex issue in its real-life (naturally occurring) context' (Crowe, Cresswell& Robertson et al., 2011; Rashid, et al., 2019). Case studies are excellent pools for empirical data collection that aims to investigate certain phenomena or aspects in direct association with the surrounding context, the existing relations between, for instance, patients and lay mental health workers, and the way these actors function in a particular environment. It then draws lessons from these interactions that might also be relevant to other settings. Case studies can be used in public health to understand certain causal relations, or to elicit ideas on how certain interventions (such as, for example, psychosocial interventions, training or supervision programmes) might be well conducted, by evaluating how they are received (Yin, 2012). The current research includes several single and multiple case studies that focus on distinct contexts, for instance on training and supervision, as well as the functioning within MHAT organizations(as a whole) (Chapter 4). Case studies are used particularly in the social sciences and in public health, as they offer in-depth explorations of complex phenomena such as, for instance, 'behaviour', which is difficult to plot and evaluate in isolation from a specific context. Some studies in the current thesis have been conducted longitudinally, observing, and comparing data for several years, which offered the opportunity to study certain practices over a longer period of time.

*'Bottom-up' research approach: qualitative*

Though there are various case-study designs, the current thesis includes studies that could be referred to as 'interpretive case studies' as we aimed to interpret the data elicited from the field work in a way that led to the development of conceptual categories and theory, rather than evaluating the reality deductively, led by a predetermined structure. Most of the studies were thus supported by an explorative methodology (e.g. observations,

field notes, informal and more structured talks and interviews) to complement and build on certain theories, rather than structuring the research based on preconceived notions (Zainal, 2007). This was largely because of the assumed complex nature of what mental health services in rural areas, in terms of lay mental health workers practices, etc., would entail. We aimed to use the case studies to come to a larger knowledge base on what this complexity really meant in the current MHAT context.

We refer to this type of knowledge as inductive, grassroots-driven, or 'bottom-up' (Achenbach, 2000). I use the term bottom-up to describe the approach of information gathering and knowledge development in this research, as the studies were used to describe more individual (or collective) cases to create new 'general' knowledge; 'it progresses from individual elements to build a view of the whole, piecing data together until a larger picture is formed' (Achenbach et al., 2003). This approach was considered valuable and important, as it derives knowledge from the grassroots level upwards (focusing on – and giving serious consideration to – the participants' lived, subjective experiences), while refining and improving existing ideas or theories (such as theories on how people learn or what people need to feel motivated in their work). In its approach, therefore, it differs from those that select and develop methodological tools to evaluate phenomena on the basis of predetermined criteria (such as the Diagnostic Statistical Manual (DSM) for mental disorders) (Achenbach et al., 2003). In the way that the studies are conducted in this research, complex systems further up the ladder can be understood in terms of the interaction of their sub-systems. The thesis achieved this for instance by focusing on individual examples of training and supervision in order to establish the nature of LMHWs' challenges and needs.

At the same time, the research is not entirely inductive or 'grounded theory'-oriented, as it also includes, in some studies, quantitative methods (such as a scale for knowledge testing) to complement the in-depth data from individual observations. Thus, a mixed-methods approach can strengthen the ideas that come from the case-study approach, by employing tools that are numerical ('how much or how long of something', etc., in socio-demographic evaluations, for instance), or evaluation-oriented ('how well is something experienced' 'how well is something performed' in knowledge-based tests) (Ali, 2021). Mixed methods are particularly useful to answer research questions which neither qualitative nor quantitative methods can answer alone, which is the current case given the research focus on complexity. Though it is a time-intensive form of study, it also allows for more dynamic responses to sample collection, analysis and integration. In most studies, sequential methods were used to validate the findings of an earlier phase of data collection with another research method(Gray, 2018).

### 3.5 Categories of studies

*Organizational level*

The first and last chapters focus on the macrolevel of MHAT as an organization by studying it as a CAS in Chapter 4 and detailing its integrated model of care in Chapter 8. In Chapter 4, a case-study approach was used to evaluate the way various aspects of the clinics worked together to achieve certain mental health outcomes. The multiple case-study approach was used to compare processes and outcomes of these four clinics. Semi-structured interviews with programme administrators, staff, volunteers, caregivers and patients or clients were conducted. Group interviews with multi-family support groups and peer groups were also undertaken. All the interviews were recorded and transcribed. Participant observation was the main data-collection tool. All the activities observed over a six-year period were recorded as field notes, which were immediately converted into narrative accounts. Document reviews of case files and electronic records were collected from the community clinics, statistics on socio-demographic data and interventions provided and clinical characteristics were collected from case files.

Chapter 8 considers the evolution of the social development model by adopting the data-collection methods of semi-structured interviews individuals and group interviews, participant observation and document analysis. The activities were recorded as field notes and written up in narrative form.

*Training*

Chapter 5 evaluates the development and evaluation of the training module in task-sharing. Specifically, it looks at the thesis sub-questions of how LMHWs can be empowered to productively self-organize and interact with other actors in the CAS of mental health in mutually beneficial ways and how can LMHWs' training, supervision and practices be continuously adapted through best practices and technology, without compromising the richness of complexity and community engagement. The training model covered in this chapter was evaluated using triangulation through participant observation, surveys and interviews. Field notes were kept by the trainer both on the process and the progress of trainees. A 13-item knowledge test, based on the content of the training module, was administered before and after the training. Interview reflections on the training were used to assess changes in knowledge and evaluate delivery methods, and LMHWs submitted written reflectionsonthe training after each session. Finally, assignments provided in the training were also used as data, including videos of particular interactions with patients

and a case-study. A further set of interviews with trainees, patients and family caregivers was conducted to evaluate the quality of the training in practice.

*Supervision*

Chapters 6 and 7 focus on different supervisory programmes within MHAT. Primary data collection consisted of semi-structured interviews with all participants and supervisors and socio-demographic questionnaires. Participants were recruited using purposive sampling. Participant observation and the supervisors' notes are also incorporated into Chapter 7. Informed consent was obtained from the participants through an information leaflet. Data was collected between January and April 2021 through individual interviews. Participants were also offered the option of telephone interviews in view of their work schedules, geographical location, and pandemic-related social distancing. All interviews were audio-recorded and conducted by experienced researchers who were not known to the participants and transcribed from Malayalam (the language spoken in Kerala) to English. Data was handled and stored according to the Mental Health Action Trust's Data Protection Policy, ensuring confidentiality.

*Table 3. 2. Methods and timeline*

| Chapters | Data-collection Methods | Study participants (N) | Timeline |
|---|---|---|---|
| **Chapter 4** | Semi-structured interviews, individual and group interviews, participant observation as observing clinical encounters, accompanying staff on home visits, observing and conducting training sessions, attending multi-family support groups and holding conversations during outpatient clinics. The activities were recorded as field notes and written up in narrative form. Document reviews as physical case files and electronic records for socio-demographic data, interventions and clinical characteristics. | Mental Health professional(1), community volunteers(6), ASHA worker(2), LMHWs(4) | October 2014–December 2020 |

| | | | |
|---|---|---|---|
| **Chapter 5** | Knowledge test, reflections on classroom training, Participant observation: Field notes, trainees' self-reflection on training, reflection on supervision. | LMHWs(13), trainers(4), caregivers(15), supervisor (1),<br><br>patients (10) | December 2016–March 2017 |
| **Chapter 6** | Semi-structured and in-depth interviews | LMHW peer supervisors(2)<br><br>LMHWs supervisees(12) | January 2021–April 2021 |
| **Chapter 7** | Semi-structured and in-depth interviews | LMHWs (13) supervisor Clinical Psychologist (1),<br><br>Psychologists (5) | January 2021 and April 2021 |
| **Chapter 8** | Semi-structured interviews, individual and group interviews, Participant observation as observing clinical encounters, accompanying staff on home visits, observing and conducting training sessions, attending multi-family support groups and holding conversations during outpatient clinics. The activities were recorded as field notes and written up in narrative form. Document reviews of physical case files and electronic records for socio-demographic data, interventions and clinical characteristics. | Mental health professionals (4)<br><br>LMHWs (5)<br><br>Community volunteers (4) | January 2015 and April 2022 |

### 3.6 Research team

Three research teams were engaged in this thesis. The first team (Chapters 4, and 5) comprised the principal researcher a clinical psychologist, a psychiatrist, a psychiatric social worker, research assistants, four trainers, one fieldwork supervisor and the two thesis supervisors.

The second team (Chapters 6 and 7) comprised the principal researcher (a clinical psychologist), a psychiatrist and the two thesis supervisors. The third team (Chapter 8) comprised the principal researcher (a psychiatrist), a clinical psychologist, a social worker, and the two thesis supervisors. The author, as principal researcher, participated in all conceptualization and design with the co-authors and coordinated all data collection, transcription, coding and analysis.

### 3.7 Analysis

The analysis process in most of the studies included was based on a semi-inductive approach. While there were certain theories supporting the exploration in each case study (e.g. theories on motivation, self-efficacy, and complexity), the analysis sought to generate in-depth and detailed understanding of the data emerging from the real-life setting of MHAT, and use this to find potentially original and complementary knowledge aspects that would otherwise not be considered (for example, when employing more preconceived concepts as analytical framework). Thus, an iterative process between close data inspection versus theory-building was conducted in all studies. Chapter 4, for instance, derives its first impression of the data through an open-coding process, before considering the CAS theory in which the data might be organized and understood. Similarly, other studies are analysed in a semi-inductive manner, to generate conclusions, without using theory as a straitjacket 'forcing data to fit' whatever lens employed (e.g. Crowe et al., 2011). Analysis was always undertaken with more than two researchers for each study, who would work to interpret the data, first, independently, to then work towards developing a shared notion of how to write up the results.

### 3.8 Validity

Research validity is concerned with how we can be sure that the research findings are really representative of what can be considered 'true' (for the participants in the study, but also for the general context of the study). While there can never be a perfect reflection of the 'truth', since the reality of certain phenomena is highly subjective and uniquely diverse depending on who perceives or experiences it, we still, of course, aim to work towards

a coherent interpretation and presentation of the aspects that are examined in this thesis. Even so, the results are bound to be, to some extent, biased or, just in the manner of reporting the results, subject to misunderstanding. A few strategies, however, were used to strengthen the robust nature of the research findings, and to come as close as possible to validating the results. First, while mixed methods help to triangulate various 'sorts of data' (Dawadi et al., 2021), which can either contrast with or complement each other, we also used triangulation of participants (including various types of actors) to understand a particular phenomenon. By including different voices, also at different clinics, and at different time periods, there were more opportunities for correcting misunderstandings or misinterpretations. This helps to substantiate the validity of this research, by increasing the likelihood of realizing that certain findings require reconsideration.

Another strategy is included in the methodological approach of exploring case studies. By constantly going back and forth between certain study outcomes and the environmental aspects of these outcomes, one creates subtler and more detailed understanding of why and under which circumstances these phenomena can be understood to emerge in a particular way. This prevents interpretation bias, by allowing the reader to be more consistently aware of the fuzzy and messy context in which findings are embedded.

Finally, and importantly so, validity is increased (but only with sufficient self-checks in place) by the way I myself, as primary researcher, have been involved in the study. As I was already involved in the study environment before the seven years covered by this research, and as a member of this community, there was an opportunity both to build more trust as part of the research network, and with study participants, and to use my own experience as potential 'explanatory' tool for certain behaviours and practices that are observed. Haapanen & Manninen (2021) explain that all human behaviour includes both observation action components and intention components (the meaning behind it). Sometimes, it takes an emic (insiders') perspective to tease out the intentions and meanings that are rooted in cultural values and norms to fully understand certain forms of behaviour (Haapanen et al., 2021). However, the risk is that such interpretations are made too casually and without proper investigation or transparent negotiation. In order to maintain the academic rigour of the study, I worked closely with research partners who could help me to rationalize and give voice to such more 'intuitive' ideas on what was happening in the field of MHAT. Furthermore, peer debriefing and member checks were employed, where research was presented for feedback within MHAT and research teams at regular intervals, and there was also regular contact with participants.

The researcher is the Senior Clinical Psychologist, who has been working at MHAT since 2009, and holds an MPhil in Clinical Psychology and is currently taking on a role of supervision and training along with psychological interventions.

*Ethics committee approval*

The in-house MHAT ethical committee granted ethical approval as the study involvedno invasive or drug-related pharmacological interventions. The Review Board comprises external reviewers representing a range of professions related to the proposed research. All study participants remained anonymous, and no names were used in the reporting of study results. All materials are stored in locked cupboards and password-protected databases, which cannot be accessed by external parties. Written consent was obtained from all participants participants for accessing patient file before the commencement of data collection. Consent forms were translated into Malayalam from English. For participants who were unable to read and write, oral consent was obtained, and a witness signed the consent form. Before the start of the interviews and focus group discussions (FGDs), participants were informed of their right to refuse to participate in the study, to refuse to answer any of the questions and to discontinue the interview at any time. Time was provided for participants to ask questions about the study and the data-collection process.

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Chapter 4

# Using a Complex Adaptive System framework to evaluate a volunteer-based community mental health programme in India

**Abstract**

In India, the Mental Health Action Trust (MHAT) model of providing mental healthcare in partnership with local bodies or voluntary groups has been applied in 70 locations since 2008. It provides decentralized care and a comprehensive service to people living in poverty suffering with severe mental illness. To evaluate how this Community Psychiatry Model (CPM) work in India, a comprehensive model is required. Using the Complex Adaptive System (CAS) framework, we aim to understand the factors influencing the outcome of the MHAT community mental health programme in four different settings. Four clinics started by MHAT were purposively chosen from two districts in Kerala. A comparative casestudy methodology was employed to document each clinic's MHAT services and activities, based mainly on field visits, which included accompanying domiciliary teams and family support groups, and interviewing staff members and volunteers. The study shows that all four clinics met the basic aim to provide free, good quality mental health care to the poorest populations, although not all aspects of the comprehensive model could be equally provided. Alignment with the MHAT vision, appropriate leadership, the relationship with partners, and their level of community engagement, determined the varied success between clinics. The current study evaluation stresses that community ownership is crucial. Careful attention must be paid to the characteristics of selected partners; their leadership styles and ability to garner resources. Centralized programmes that ignore such complexities have low chances of success.

## 1. Introduction

### *1.1 Mental health and the treatment gap in Kerala, India*

Mental disorders and substance (ab) use are among the leading causes of disability worldwide (Voigt and King, 2014; Whiteford et al., 2013). Although one in four persons are affected by a mental disorder during their lifetime, persistent treatment gaps demonstrate the need for continued vigilance and structural improvements (World Health Organization, 2019). A national survey in India found a 13.7% prevalence of mental disorders nationally and 14% in Kerala, where the suicide risk of 12.5% was nearly twice the national average, and the treatment gap varied from 70% to 92% (Murthy, 2017).

While India's mental health needs are high and growing, the existing services are grossly inadequate and inequitably distributed (WHO, 2019, Kumar, 2011). While some have access to private care, the poor – especially in rural areas –rely on the public sector. Only 1% of India's gross domestic product (GDP) is allocated to health, of which a fraction is dedicated to mental health(Shahrawat and Rao, 2012). Estimated out-of-pocket (OOP) expenses are a whopping 69% of total health expenditure (Shahrawat et al., 2012). The barriers to accessing health services include geographical accessibility, availability, affordability and acceptability –nowhere more so than in India(Jacobs et al., 2011) with low levels of literacy, stigma, discrimination, socio cultural factors and deep-rooted religious and cultural beliefs about mental disorders (Kumar, 2011).

### *1.2 Community psychiatry and the MHAT model*

In recent decades, models of community psychiatry have been endorsed by the WHO (Caplan and Caplan, 2000; World Health Organization, 2020), and, although slowly, have been adopted also by low-income countries (LICs), such as India (Kumar, 2011; Khandelwal et al., 2004). Such models normalize the understanding that mental health care is not necessarily the sole responsibility of medical doctors, and certain tasks can be adopted by multidisciplinary care teams, involving e.g. nurses, psychologists, social workers and occupational therapists. Community-based approaches emphasize assertive community treatment, task-sharing and community-based rehabilitation, while others also focus on the autonomy and human rights of individuals and families in treatment, such as in recovery-oriented care, recognition of user voices, shared decision-making and peer support (WHO,2019).

One community-based psychiatry approach – the Mental Health Action Trust (MHAT) model of community-based health –has been applied in 70 locations in India since 2008.

MHAT provides free, community-owned, volunteer-led, recovery-oriented mental health services for the poorest mentally ill patients in a biopsychosocial framework, through existing health systems (Kumar, 2018, Kumar, 2020; Thippaiah et al., 2020).MHAT is based on the principles of social justice and adheres to generally accepted principles for setting up community mental health programmes (Chisholm et al., 2019, Eaton, 2018). Given its value-based origins, the MHAT model prioritizes holistic, multidisciplinary and decentralized approaches to community psychiatry. Decentralization refers here to providing local services, sharing resources and responsibilities with local partners, and fostering of a sense of local ownership. Given its emphasis on providing care to economically vulnerable and underserved populations, a central tenet is that care and medication are free at the point of delivery. Costs are shared between the local partner and MHAT in order to be financially viable.

The MHAT model, including various sub-systems, such as patients, their families, volunteers, the government health centre, etc., depend heavily on the quality of relationships between local partnerships. Similarly, for their success, complex health models such as MHAT rely on the interplay of a wide variety of (inter-)organisational factors, all which cannot easily be grasped or studied by linear input-output evaluation models. Considering the complexity, there is a need to understand how the MHAT clinics function in various contexts, especially since the uptake has been somewhat low, and attrition rates relatively high. The dynamics of the relationship between MHAT and local organizations need to be studied in detail, especially regarding potential problems. This calls for a dynamic analytical framework to develop a systematic understanding of the outcomes of community psychiatry, and identify real barriers and facilitators, with the ultimate goal of increasing access to care in low-income settings. This study asks the following question:

> *What are the processes and factors that either hinder or facilitate the successful outcome of MHAT clinics in India?*

## 2. Theoretical background

Until recently, reductionist approaches for studying systems on the basis of their component parts – each assumed to be equal and static – were the norm in evaluating health programmes (Turner and Baker, 2019).Both in medical- as well as in social sciences, the tradition has long been to employ relatively static evaluation formats (including e.g. logframes, statistical testing models, and narrow guidelines) to interpret complex organisational dynamics to controllable input-output-outcomes parameters (Rusoja et al,. 2018). It is now understood that such linear models cannot capture complex realities, such as

health systems that rely on the relationships between sub-parts and individual actors, inside and outside the organization. There is more acknowledgements for that idea that interactions between individuals within a subsystem and across various subsystems are complex, dynamic and have unpredictable outcomes (Belrhiti et al., 2018; Churruca et al., 2019). In complexity theory, it is only by understanding individual parts and their dynamic interactions that we can gain a more complete understanding of the whole (Turner and Baker, 2019; Pype et al., 2018).Understanding that individual-and collective properties fluctuate and vary, and determine outcome variables, lies at the core of complexity theory, which is therefore a promising direction for examining the non-linear outcomes of community psychiatry. The Complex Adaptive Systems (CAS) framework, helps to avoid mechanical, linear views on reality, and is increasingly used to analyse interdisciplinary teams in complex health organisations, and so far has provided insights that could not have been reached by using traditional explanatory health models (Pype et al., 2018). CAS, with its sensitivity for parameters that are otherwise often overlooked, reveals how systems adapt themselves through emergent processes (Hahn &Knight, 2021). It brings up, for example, how uncertainty is handled in teams, how health care practices organise themselves according certain implicit rules, and how relationship patterns between individuals can result in variations in information sharing, response to changes, and ultimately lead to different care delivery outcomes (Thompson et al., 2016).

Although CAS has been interpreted and used by different scholars in various ways, employing divergent parameters for evaluation (Hahn &Knight, 2021), and no real consensus exists about how to frame CAS, it is generally understood that systems have various (inter-dependent) characteristics. These include (a) diverse actors that learn, (b) nonlinear dependencies, (c) self-organization, (d) emergence and(e)co-evolution(McDaniel et., 2009). First, health systems include multiple active agents(e.g. mental health providers, community mental health workers, patients) who are active in mental health care systems and organizational services (e.g. hospitals, community clinics, mental health branches of health departments, non-government organizations (NGOs), e-mental health services).These actors are partners in the sense that they collaborate in the delivery of care, and adjust their actions in accordance to each other's activities (Ellis and Herbert, 2011; Mc Daniel, et al., 2009). Secondly, the relationships between agents are understood as non-linear, in the sense that inputs and outputs cannot be directly aligned (small inputs might produce big outcomes, and vice versa). CAS furthermore considers the interactions and hence interconnections between actors across- and within multiple levels of the system, as resulting from the learning that agents do. For instance, policy-makers may interact among themselves and with health professionals within different subsystems, each of which will have different cultures, networks and hierarchies, but responding to each oth-

er's patterns.CAS considers then that their behaviours are understood as context-dependent, as agents self-organize around a core driver. Self-organization is understood as the ostensible "managing" of individual roles based on internalized principles, rather than following top-down policies, which lead to emergent properties that include e.g., communication flow and trust between partners. Finally, the system's resulting behaviour as co-evolving, arising from these characteristics and complex social patterns in a given context (McDanielet al., 2009).

The application of the CAS framework to MHAT community psychiatry clinics shows how this theoretical understanding can be operationalized. Agents in this context would refer to individual members of the MHAT team, the clinic and local partners, and more if we consider the clinic in its context, e.g., Primary Health Centres (PHCs), the local Grama Panchayat, palliative care organizations or state organizations such as the National Health Mission or DMHP. As described by interconnectedness, each entity involves complex internal and external relationships, creating unpredictable patterns of self-organization. For instance, roles in mental health care can gradually change and demands openness to innovation; changing responsibilities is likely to occur far more organically on the basis of underlying values linked to such innovations and so is unpredictable. The resolutions of the inevitable conflicts that arise in relationships will depend upon the inherent nature of the organization, its leadership and the capacity to be flexible and evolve. This relates to the subject of this research – the emergent and co-evolving behaviours that result in unexpected outcomes.

## 3. Methodology

### *3.1 Study context*

To set the context for the study, Table 1., presents the MHAT clinics (N=70), and how active they are at this moment. Considerable resources are wasted, especially when clinics stop functioning, particularly if this happens early on. Since 2008, MHAT has worked in 70 locations, on the assumption that each location had elements outlined above. For various reasons, however, only 63% of the clinics survived (see Table 1).

*Table 1.MHAT clinics in India*

| **Total number of services started (2008–2021)** | **70** |
|---|---|
| Currently active | 44 (63%) |
| Stopped functioning | 26 (37%) |
| Reasons for stopping (for 25 clinics) | |
| • Local partner replacing MHAT with a Psychiatrist | 09 (35%) |
| • Partner's lack of interest in mental health area | 09 (35%) |
| • Financial & other issues | 02 (7%) |
| • COVID-related issues | 06 (23%) |

This research used the CAS framework to explore the complex dynamics that happen at the level of agent characteristics, connection and communication, self-organisation, and emergent/co-evolving behaviours (as outcomes).Data collection involved a qualitative approach with various methods, including participant observation or field notes, interviews and document analysis.

### *3.2 Setting*

Four community clinics were selected purposively, two each from Malappuram and Palakkad districts in Kerala, which provide community mental health services with professional inputs from MHAT. They were chosen to reflect all three types of MHAT community partnerships– with established health providers in the voluntary sector (community palliative care), with government-run PHCs and stand-alone mental healthcare providers established to run MHAT-led services. They were also selected to reflect different dates of starting, of four to twelve years.

### *3.3 Data collection*

The case-study approach involved weekly site visits from October 2014 to December 2020, accompanying the domiciliary teams, interviewing community volunteers, visiting family support groups, and interviewing staff members. This was supplemented with the analysis of key documents. The emphasis was on three key factors drawn from existing criteria for evaluating community mental health programmes in low-income countries (Cohen et al. 2012): physical context (geographical location and local standing), structure of the clinics (hierarchy, leadership models) and the clinics' functioning, including met-

rics such as number of patients, number of dropouts, perceived support, and causes of dissatisfaction.

Interviews: Semi-structured interviews with programme administrators, staff, volunteers, caregivers and patients, as well as group interviews with multi-family support groups and peer groups, were all recorded and transcribed.

Participant observation: Participant observation was the main source of data, based on four hours of fieldwork each week over a period of six years. This included observing clinical encounters, accompanying staff on home visits, observing and conducting training sessions, attending multi-family support groups and holding conversations during outpatient clinics. The activities were recorded as field notes and written up in narrative form.

Document reviews: Anonymised data from physical case files and electronic records were collected, including socio-demographic data, interventions and clinical characteristics.

### *3.4 Data Analysis*

Qualitative data from the interviews, participant observations and document reviewwere analysed manually, and the transcripts, narrative accounts and documentary records were then analysed using the CAS framework. For descriptive purposes, a simple analysis of frequencies, distribution and cross tabulation was undertaken, along with timelines of key and major developments for each clinic.

### *Ethics committee approval*

The in-house ethical committee of MHAT granted ethical approval as the study did not involve any invasive or drug related pharmacological interventions.

## 4. Findings

After a brief description of the main differences between the four clinics, this section is structured around the CAS framework, including the analysis ofagents, interconnectedness, self-organization and change and emergent behaviour.

*4.1 History and initial conditions*

*Table 2.Characteristics of MHAT clinics in this study*

| **Community Clinics** | **Clinic 1** | **Clinic 2** | **Clinic 3** | **Clinic 4** |
|---|---|---|---|---|
| Location | Rural | Semi-urban | Semi-urban | Rural |
| District | Malappuram | Malappuram | Palakkad | Palakkad |
| Geographic area | 33.61 $km^2$ | 24.82 $km^2$ | 7.76 $km^2$ | 29.37 $km^2$ |
| Population | 52,090 (2011) | 90,491 (2011) | 7,306 (2011) | 23,581 (2011) |
| Model | Community palliative care provider | Community palliative care provider | Stand-alone mental healthcare provider | Primary Health Centre |
| Funding | Public donations | Public donations | Individual donations | Government |
| Management | Palliative care society | Palliative care society | Single individual with financial support from a few | Primary Health Centre |
| Reason for starting MH service | Dissatisfaction with previous arrangement | Wanting to expand remit of care | Altruisticreasons | Awareness of the unmet MH needs of the community |
| Started – ended | 2013–2018 | 2009– ongoing | 2016– ongoing | 2016– ongoing |

As mentioned earlier, the MHAT clinics for this study were chosen to reflect different geographies and distinct models of services provided by community partners, including rural and semi-urban settings, which began outpatient services between 2008 and 2016.

Clear differences in the original nature of each clinic and its funding structures exist. For instance, clinics 1 and 2 in Malappuram District were part of a well-established Pain and Palliative Care network with the advantage of a central coordinating agency, Clinic 3 was established within a private charitable organization funded by a local family, and

clinic 4 was housed in a government-run PHC. Clinics 1 and 2 focused on chronic illness, clinic 3 on mental health outpatient services and clinic 4 provided outpatient care alongside other forms of conventional mental health care.

Though the clinics' primary motivation was to provide mental health services in areas where these had yet to be developed, they approached this from different baselines. Where clinics 1, 2 and 4 were already providers, clinic 3 arose from the philanthropic interest of the family funding it. Clinic 1 had experience in working with mental health patients but lacked psychiatric expertise, while clinic 2 had none in this regard. Realizing the community's unmet mental health needs, with the local administration's support, the PHC medical officer in clinic 4 contacted MHAT. As Table 2., shows, after five years, clinic 1 parted company with MHAT in 2018, replacing its weekly multidisciplinary input with fortnightly support from a psychiatrist.

### *4.2 Agent Characteristics*

In each of the clinics, two key areas emerged as important features of agents in MHATs; a) the internalized role of community volunteers, and b) models of leadership that guide volunteers.

#### *a. Community volunteers*

An essential aspect of MHAT is the participation of community volunteers in providing mental health services, which each clinic interpreted and incorporated differently. One obvious difference is that in the government-run clinic 4 the community volunteer functions are carried out by Accredited Social Health Activist (ASHA) community health workers (CHWs).These CHWs saw themselves as having a role in community mental health services, specifically in screening, monitoring and providing psychosocial interventions:

> "*We consider the mental health care as our responsibility...our role will start from detecting a patient.*" (ASHA worker, clinic 4)

Though participants in clinic 1 also expressed this sense of responsibility, they emphasized theirpsychosocial support and its impact on recovery, also echoed in clinic 2.

> "*We consider 70% of role in patient care is community. We community volunteers want to play a major role in bringing our patient into recovery.*" (Community volunteer, clinic 1)

The main difference was seen in clinic 3, which had only one community volunteer participating in care, who saw their main role as dispensing medication free of cost.

> *"Conducting free outpatient service and providing medicine as free itself is a huge task."* (Community volunteer leader, clinic 3)

*b. Leadership of community clinics*

The leadership style had a significant impact on team functioning in the non-government clinics. There were similarities in the leaders in clinics 1 and 2, whose expertise in community psychiatry, effective emergency response and care for employees' wellbeing were seen as their defining characteristics.

> *"Our leader is personally concerned about our individual well-being, personal growth, and he always encourages me to do further training courses in the field of mental health."* (Community volunteer, clinic 1)

> *"He works well for meeting urgent needs quickly. It works best in emergencies especially in preventing relapses of patients."* (Community volunteer, clinic 2 )

There were, however, marked differences in the rigidity of the leadership styles in clinics 1 and 2. In clinic 1, the leader's approach limited any autonomy. For instance, one participant noted that a tendency to micromanage and failure to incorporate volunteers' input led to a perceived lack of trust, and some volunteers left. This rigid approach made it hard for them to work independently:

> *"If all decisions rise and set on him, then there is not a plan in place for if he has to leave for any reason. Community volunteer can become so dependent on the leader that they are unable to function if he is not around. In each and every steps, he has to control…."*(Community volunteer, clinic 1)

This was contrasted by the atmosphere within clinic 2, where the leader was a former MHAT staff member.

> *"He has a trust in our plan and implementation. This helps a lot to implement novel interventions."* (Mental health professional, clinic 2)

One criticism noted in clinics 1, 2 and 3 was the persistent neglect of women's knowledge in the MHAT team. Women seldom had any say in decision-making and were expected to follow orders.

*"Male leaders were not considering our opinions. It is too difficult to execute plans with them in community. This is not only the problem of Lay Mental Health Worker[s] like me but also with women professionals."* (Lay mental health worker staff, MHAT, clinic 1)

There were also marked differences in the leader's role in the government-run PHC (clinic 4), where the system was sufficiently robust to continue even with changes in the medical staff. The ASHA team remained stable, which offset changes in the rest of the team. Each ASHA worker had direct contact with a psychiatrist and could intervene directly in decision-making:

*"When we come to know about any issues with patients, we directly call psychiatrist and intervene as soon as possible."*(ASHA worker, clinic4)

*4.3 Inter-connectedness*

Patterns were observed in the relationship between community clinics and the MHAT multidisciplinary team, and aspects of the relationships within the local teams and between them and MHAT eventually became problematic. These included a) internalized rules and values, b) non-linear communication, and c) trust and respect.

*a. Internalized rules and values*

From numerous responses a pattern emerged of diverse internalized rules and values that characterized how MHAT teams interacted internally and externally. For instance, many respondents expressed the understanding that the final responsibility for clinical decisions lay with the mental health professionals in charge of the community clinic.

*"It is clearly understood that mental health professionals will diagnose and do treatment. There is no interference from the part of medical officer of Primary Health Centre."* (ASHA worker, clinic 4)

Participants also noted that clearly communicating the division of tasks was an important value or rule.

*"We need clarity in roles and responsibilities of everyone."* (Community volunteer leader, clinic 2)

Ultimately, the most significant internalized rule that emerged in the data was that of a duty of care to the poorest populations: "We are here for the poorest of the poorest mentally ill patients. This is our duty".

This value was the driving force for collaboration and for sharing resources. However, interpretation and understanding of such internalized rules is not uniform by definition, and their role in interactions is therefore influenced by how far such rules are shared or individual.

*b. Non-linear communication*

Central to most interactions is a degree of information exchange, which is understood in the CAS model to be rarely direct and unaltered. Communication within complex systems is often non-linear, so a small amount of information might have a disproportionate effect, and vice versa. For instance, in relation to the value of providing care for the poorest, a minor conflict in interpretation had significant consequences:

> *"I explained to a local community clinic leader why I could not take in a patient with mental illness detected in community. The actual reason was that the patient did not belong to the target group of the MHAT as poorest of the poorest. As a response to screening out that patient, the local clinic leader reacted in an angry manner and subsequently decided to cease taking new patients in collaboration with MHAT."* (Lay MHAT staff, clinic 1)

Indeed, this essential internalized rule of the duty of care to the poorest citizens, as well as other aspects of the MHAT model, were not willingly incorporated in clinic 1. For instance, innovations such as task-sharing and tele-supervision, open dialogue and shared decision-making were so strongly resisted that it pre-empted one-to-one communication of information. This pattern also demonstrated itself in less value-based or clearly divisive issues. For instance, in case of dividing tasks or communicating disagreements:

> *"When I requested [the] community volunteer to sit outside the group therapy room, he scolded me and started a new group by his own initiative."* (MHAT Lay Mental Health Worker, clinic 1)

> *"There was a community volunteer leader who always interfere[s] in therapy sessions. I told him not to interfere in my sessions. After that he started to find each minute mistake [sic] in my work."* (MHAT Lay Mental Health Worker, clinic 2)

Indeed, communication regarding a single patient occasionally led to clashes:

> *"I was that patient's volunteer. I know he doesn't take medication. Without discussing [it with] me, the psychiatrist increased the dosage. Actually, the treatment plan*

*should focus on adherence rather than increasing dosage.*" (Community volunteer leader, clinic 2)

Communication between different actors in MHAT clinics also sometimes led to examples of genuine reinforcement, for instance in how workplace learning results in holistic changes in team functioning:

> *"This workplace learning, the acquisition of new skills as an individual or as a team, can lead to a new way of functioning and is major new behaviour resulting from the collaboration. This helped me a lot.*" (Mental health professional, clinic 2)

*c. Trust and respect*

A final point in relation to interactions between actors within clinics concerned differences in the types of working relationships. For instance, in clinics 2 and 3, building long-term relationships between employees led to trusting each other's expertise and ability to provide quality care. This facilitated the sharing of tasks and responsibilities.

> *"We developed a mutual respect of each other's knowledge and expertise... [This] creates a positive working atmosphere and prevents role conflicts... In case of disagreements on treatment options or differing views on care aims, open and immediate communication is initiated.*" (Community volunteer, clinic 2)

> *"Knowing each other at a personal level facilitates communication and establishes a basic sense of trust in each other's competences. You get to know the other's strengths and weaknesses, which results in tailored communication and collaboration.*" (Mental health professional, clinic 2)

Conversely, in clinic 1, resistance to new ideas involving open communication resulted in a very different working atmosphere:

> *"A tradition of lack of systematic and frequent communication leads to the initiation of problems. Previous communication problems, like a psychiatrist being repeatedly unavailable for direct consultation or unwilling to tele-psychiatry model, cause them to find indirect communication with other junior team members, thus excluding the Clinical Director from the interaction.*" (Mental health professional, clinic 1)

### *4.4 Self-organization*

Self-organization is the spontaneous generation of order in the system, whereby the internal dynamics generate system-wide patterns. Some of the evolving patterns in a self-organizing system facilitate proper functioning, and others do not. The MHAT system of care itself changed over the course of its work in the region, and internal actions in the various clinics should be seen in this light.

As more clinics were opened, MHAT shifted from its initial approach whereby a small team of professionals visited clinics at regular intervals, to a team of non-professional or lay mental health workers. The programmealsobegan to adopt task-sharing, with clinics run by non-medical professionals and psychiatrists providing tele-supervision. Though individual clinic teams often remained fairly stable, the MHAT team lost some members on completing the minimum one-year period.

*a. Collaboration or Rivalry*

The interviews found that different organizational cultures and practices could result in significant discrepancies in the organizational structure. In clinics 2 and 4, the duty of care was the basis for all interactions, which resulted in a mutual flow of expertise and information through intensive collaboration. This was clearest in the handling of difficult cases, where good communication was more likely to see weekly team meetings backed up with phone calls or extra meetings, and to consider the perspectives of the whole team, including nurses and local volunteers. This was not the case in all clinics, and some participants noted that the lack of shared values adversely affected communication within the team, resulting in an atmosphere of rivalry rather than collaboration:

> *"In cases when the patient care becomes secondary and primary concerns goes to local volunteer personal needs, team members experience rivalry between MHAT multidisciplinary team and local partner with regard to expertise. This is a main hindrance for proper functioning."* (Mental health professional, clinic 1)

*b. Open communication*

Open communication among team members is highly valued, and helps in working with local partners. It always pays to be constructive in addressing mistakes, while a history of poor communication makes team members judge each other more harshly.Knowing each other personally or through long-term collaboration facilitates communication and establishes a basic sense of trust in each other's competence, strengths and weaknesses.

The need for open communication was highlighted by mental health professionals in charge of all four clinics:

> *"In clinic 1, there was no open communication, which was creating a drainage energy and tension in work."* (Mental health professional)

### *4.5 Emergent and co-evolving behaviours (MHATs outcomes)*

Given the nature of complex adaptive systems, the outcomes of each MHAT clinic was unpredictable. Though the same criteria were used in setting them up, differences in agent characteristics resulted in different implementation. For instance, clinic 3 adjusted its treatment to meet its staff shortage, and clinic 4 adjusted its task division to accommodate the ASHA workers' rigorous training. Not all clinics managed to adjust, resulting in attrition, with clinic 1 discontinuing MHAT services after five years.

#### *a. Implementation and MHAT buy-in*

The final significant difference in the clinics' outcomes related to the holistic implementation of the MHAT model on the basis of underlying values and organizational structures. The clinics adhered to most aspects of the comprehensive care MHAT seeks, including screening, outpatient services, psychological assessment, vocational rehabilitation, home visits and support groups – but did not interpret them uniformly. For instance, in clinic 3, the lack of a full team meant that one person contacted most of the individuals through screening. Nor did all clinics accept the socioeconomic criteria involved in MHAT screening, as in clinic 1 – which also disagreed with the common MHAT practice of tele-psychiatry, which other clinics saw as positive.

> *"We consider it as a more advanced, new generation system of community mental health care."* (Local clinic leader, clinic 2)

Differences in organizational structure also affected how clinic teams approached diagnosis and care, seen most clearly in clinic 4, where the responsibility lies both with clinical staff and with the ASHA workers, who made psychological assessments, with some supervision.

> *"Initial period of starting community psychiatry out patient service in Primary health centre setting, it was focused on training selected ASHA workers on psychosocial assessments. Those selected trained ASHA workers are conducting assessment with the supervision of mental health professionals."* (Mental health professional, clinic4)

Concerning the provision of agreed forms of care, logistical issues, among other factors, led different clinics to set limitations. For instance, clinics 1 and 2 supplied full day-care options a few days a week, and clinic 4 did so once weekly in combination with another activity, but clinic 3 faced capacity issues:

> *"It is difficult to talk about starting a day care, vocational rehabilitation unit or peer support work in a clinic where there [are] no community volunteers. Conducting outpatient service and providing medicines itself is a big matter in the absence of community volunteers."* (Local clinical leader, clinic 3)

Short staffing also made it harder to make regular home visits, which could mean less insight into the progress of treatment. Other clinics also experienced difficulties in providing family and peer support groups, which are known to help improve patients' recovery. In clinic 4, caregivers had problems:

> *"Most of our caregivers are the income source for the house. It is difficult totake leave from their regular works. There is no proper transport facility in most of the area. It needs expense to reach clinic. So most of the caregivers can't reach for meeting."* (ASHA worker, clinic 4)

Psychosocial interventions and vocational rehabilitation were carried out in all four clinics, focusing on quality of life, social inclusion and alleviating symptoms. Vocational rehabilitation was highly effective in all clinics, enhanced by clinic leaders' direct involvement.

> *"The changes we observed after employment were obvious. Now his identity has been changed as an income-generating man."* (Leader, clinic 3)

**Discussion**

The CAS approach seeks to align and integrate individual insights into a holistic analysis. Hence, if unanticipated emergent phenomena arise, analytical tools can address them by examining the interplay between various factors involved. This method of studying the implementation of community health programmes may yield more guidance for future action, which is significant given the high attrition rate in the MHAT model, with over a third of such programmes closing prematurely. For this reason, this study used the CAS method to study four representative clinics to better anticipate outcomes and identify best practices for future application. This section discusses the main points of the feasibility of the MHAT model, and key factors in success or failure, such as leadership, openness to

innovation, communication and self-organization. It concludes with a reflection on attrition and understanding complexity (Turner et al., 2019; Pype et al., 2018).

*Feasibility of MHAT*

It is implicit in the findings that it is feasible to implement a community-owned, comprehensive mental healthcare in low-resource rural and semi-urban settings. Most agreed aspects of the MHAT programme were implemented in the four clinics, albeit not uniformly. The circumstances that impeded implementation are best understood in relation to organizational factors (McDaniel, et al., 2009). First, the original context of each clinic proved significant in how it responded to situations that arose. Clinics 1, 2 and 4 each already supplied some form of care, and joined MHAT in order to expand their services. This led to a need to adapt that occasionally caused friction, mainly linked to problems with communication, leadership and inter-team relations. Clinic 3 set up a MHAT programme from scratch, leading to issues relating to the capacity to provide all the services. All four clinics encountered problems related to team stability owing to frequent staff turnover. This created challenges for CHWs as well as for families and patients, although was less of an issue in clinic 4, where the ASHA workers remained despite frequent turnover in the rest of the clinic. While no clinic can guarantee the stability of core staff, clinic 4 communicated this effectively so that while patients and families may still be somewhat dissatisfied, the ASHA workers carried on their work. Dealing with staff turnover and facilitating structural transitions necessarily involve the clinic's leader.

*Role of leadership*

Good leadership is critical in the overall success of any community-based programme (Van Tongeren, 2021; Randhawa et al., 2021), especially in one that relies so heavily on volunteers. This research found that the role of leadership in the functioning in a MHAT clinic was abundantly clear, as the degree of emotional involvement, effective delegation and trust in community volunteers were central in respondents' experiences. The emphasis on leadership echoes the sea change in basic assumptions about organizational management. For instance, though the importance of "strong" leadership is acknowledged, what this strength means is rarely discussed. In complexity theory, leadership is understood as dynamic, complex and interactive,notsimply having authority, but also facilitating the interaction of agents and networks to structure the emerging behaviour patterns (Hahn &Knight, 2021; Van Tongeren, 2021; Randhawa et al., 2021; Uhl-Bien et al., 2007). The multi-faceted nature of leadership discussed in complexity theory aligns with the research

findings, suggesting a need to better understand the characteristics of complexity leadership in this and similar contexts.

*Openness to innovation*

Given its unique and innovative structure, the MHAT model might face resistance if the nature and function of its components are not effectively conveyed. The acceptance of any health-related innovation requires a significant impetus given the social, cultural and religious agendas with which it may intersect. In the case of the MHAT clinics, the position and attitude of administrative leadership frequently clashed with the programme's principles, though this was usually resolved through open communication. The data suggests that strongly hierarchical and centralized organizational structures led to major challenges with the partners and required training in the MHAT programme.

Openness to change and innovations is crucial to the success of novel initiatives, but is difficult to gauge at the outset since it is assumed that only groups open to an innovative model will accept the challenge (Belrhiti et al., 2018; Pype et al., 2018). Various cultural, social and religious agendas are rarely obvious at the inception stage, becoming clear only when adaptation proves difficult. Here, administrative leadership stymied the emergence of more adaptive leadership. While strong administrative leadership led to the establishment of stable teams the failure to adapt affected the comprehensiveness of the services provided. Provision of day-care, community-based rehabilitation and establishment of family and peer groups are essential components of MHAT, but all clinics experienced problems in implementing at least one of these, resulting in incomplete care.

*Communication*

Internal communication was a persistent challenge in all four clinics, complicated by the role of individual relationship-building, value-based decision-making and non-linear interaction (Hahn & Knight, 2021; Belrhiti et al., 2018; Pype et al., 2018). Facilitators of communication were also identified, such as establishing mutual values to foster unity, creating mutual respect through stable interaction and enabling leadership. Conversely, "strong" leadership tended to reinforce hierarchies and gender-power relationships, leading to women – nurses, lay health workers and community volunteers – often being less respected than men. Though there were similar conflicts in all the clinics, in clinic 1 in particular the atmosphere rivalry and inflexible leadership made it impossible to resolve conflicts. The ideas of shared decision-making and task-sharing were so strongly at odds with common clinical practices that they resulted in a complete communication breakdown.

By contrast, clinic 3 experienced severe difficulties with leadership and low staffing, but the underlying values helped it to overcome conflicts.

*Self-organization*

Given the contextual elements leading to joining MHAT, the actor characteristics and relationships (including leadership) and the negotiating of MHAT's values within existing constraints, each clinic began a process of self-organization that resulted in a unique (frequently incomplete) implementation of the MHAT model. Although adaptation is key to successful implementation, it also entails compromises. While it seemed feasible to incorporate mental health care into existing palliative care, it proved more complicated because of rigidity within the system. Even so, given that changes can occur across the entire MHAT programme, it may be worth considering how well changes and their rationales are communicated to individual clinics.

It is crucial to help the community to accept new aspects of care such as task-sharing and active therapeutic roles played by non-professionals. The first requires moving away from the hierarchical, doctor-centred models that people are conditioned to see as a given. Non-medical mental health care professionals (e.g. psychiatric social workers, clinical psychologists, mental health nurses, occupational therapists) are seldom visible in mainstream psychiatric practice in India (Kottai and Ranganathan, 2020;Thara and Patel, 2010). The role of lay mental health workers is practically unknown outside academic circles. The resistance to task-sharing and the involvement of lay mental health workers can be a significant barrier to the success of models such as MHAT. There may be opposition from the proponents of a biological model but also from academic circles, often echoing dated "anti-psychiatry" arguments centred around social control by the state (and NGOs) with "fatal consequences for their most vulnerable citizens"(Kottai et al., 2020; Thara et al., 2010; Greenhalgh et al. 2018) ).

*Complexity and Attrition*

Three patterns of organization and emergence were evident in this study: stability, resolvable turbulence and attrition. Though all four clinics shared characteristics including geographic region, acceptance of the MHAT philosophy and the previous success in implementing MHAT, the outcomes were dissimilar. There is now greater recognition that the evaluation of health programmes requires a deeper understanding of the inherent complexities (Greenhalgh et al., 2018). In our context, a particular model of community mental health care is being introduced in settings where another model is already

being practised. The underlying assumption, that the local community is best placed to provide support to those experiencing distress or mental illness, does not dispel potential resistance to something so different from classical models (Eaton, 2018). When a model is introduced into a system it sets off a number of dynamic and interconnected processes (Greenhalgh et al., 2018). The internal rules of complex systems may not be predictable at the outset and a system may be less flexible than anticipated. The intervention therefore needs to adapt with the system and the processes in which it is engaged, which may even lead to discarding elements of the intervention, such as the much-contested task-sharing. Hierarchical rigidity was also often a source of conflict, but also revealed an underlying issue about how MHAT is traditionally implemented. While the MHAT model evolved from an understanding and recognition of local realities (bottom-up), the implementation was often top-down in that the local leader would be instrumental in its implementation; even if this is inevitable, it risks reinforcing existing power structures (Van Tongeren, 2021; Randhawa et al., 2021).

Ultimately, the complex interplay of agent characteristics, leadership processes, the ecosystem and the failure of conflict-resolution mechanisms led to the total breakdown of relationships and attrition in clinic 1. Clinic 1 had a large number of volunteers who had more training than any of the four, and the highest level of domiciliary care. Yet the emerging conflicts with the MHAT philosophy resulted in opting for an independent, medically focused mental health trajectory.

## Conclusion

This research has demonstrated that community mental health programmes can be successfully implemented in rural and semi-urban settings in India, though this depends on the local context, such as concepts of masculinity, leadership and hierarchy; and factors relating to the functioning of the system. The research identified several factors involved in the success or failure of implementation including leadership, openness to innovation, inter-organizational communication and self-organization. This is best demonstrated in considering the outcome of attrition, arising from an interplay of factors including context, the reason for forming the clinic and its members' cultural background; leadership, where inflexible leadership created tension; openness to innovation, where a refusal to consider new methods resulted in conflict; and communication, where the inability to address these challenges openly resulted in a complete break with MHAT. Overall, the Complex Adaptive Systems (CAS) approach proved essential in understanding social processes by prioritizing relationships and relational matters over reductionist, component-based analysis.

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Chapter 5

# Community based Psychosocial Intervention for Persons with Severe Mental Illness in Rural Kerala: Evaluation of a Training Program for Lay Mental Health Workers

**Abstract**

Given the challenges in tackling the mental health treatment gap in low resource settings, many organizations have been turning to task-sharing practices to try and increase access to care. However, large diversity in approaches to the training of those lay health workers involved in the process results in a need for critical evaluation of programs aiming to prepare them to work in community mental health. This study aims to evaluate a training program of Lay Mental Health Workers (LMHWs) as part of a community-based psychosocial intervention for persons with severe mental illness in rural Kerala. A total of 17 participants from four districts of Kerala participated in four months of training consisting of 48 hours in-house followed by 12 hours field work and two moths of follow up supervision. Data was collected from pre and post training tests and interviews with participants and supervisors. Participants were found to develop relevant knowledge, attitudes and practices through the training program. The training methods of role play, the individually focused discussions and supportive supervisory methods were considered helpful and effective. The main challenges trainees encountered during the execution of the psychosocial intervention were found at an organizational, professional and personal level. Lack of training to enhance supportive supervision as well as high costs and time for supervision were the other challenges encountered during implementation.

## 1. Introduction

Recognition of the impact of mental disorders on the global burden of disease in the last few decades has resulted in increasing interest in problem analysis and interventions on the subject in Low- and Middle-Income Countries (LMICs). For instance, it has been established that mental disorders contribute 11.8% of the Indian disease burden (Patel, Chatterji, & Chisholm, 2011). Furthermore, the overall weighted prevalence of severe mental disorders across a lifetime is 1.9 % in India (Thornicroft et al., 2019; Gururaj et al. 2016; Murthy, 2017). This raises significant concerns given that mental disorders lead to poor quality of life, decreased productivity and lower earning potentials (Thornicroft et al., 2019; Lund et al., 2011).

The severity of the issue of mental disorders in India is exacerbated by the fact that a large treatment gap exists for all types of mental health problems, for which innovative solutions are needed (Murthy, 2017; Gururaj et al. 2016). There is a paucity of trained mental health professionals and government's spending on mental health care is low (WHO, 2021). Even when funding is available, it is spent mostly on pharmacological care, neglecting paradigm shifts in global mental health that cover the need for biopsychosocial approaches to mental health that allow for an improved quality of life beyond the treatment of acute symptoms (McGorry et al., 2022). As India is a very large country with a strong urban-rural divide, the availability and quality of health care differs between the cities and the rural parts.

In rural India, living conditions are considerably different from urban India, with large discrepancies in the average education level as well as in the standards for living. The majority of people living in rural areas are very poor and uneducated; in the cities, there is more diversity. Stigma related to mental illness prevails and this, together with a major lack of resources in the rural areas including trained staff, results in many of the affected not receiving care. This is particularly problematic if one considers the vicious cycle of poverty and mental illness, severity of stigma and other diverse challenges which affect not only the individuals themselves but also their care-givers and families (Rose-Clarke et al., 2021; Chronister et al., 2016). In response to these numerous innovative models for mental healthcare delivery have been developed, such as the use of task sharing to provide care through employing Lay Mental Health Workers (LMHWs) (Kazdin, 2022; Lange, 2021; Hoeft et al., 2017; Balaji et al., 2012; Eaton et al., 2011). One organization applying such a model is the Mental Healht Action Trust (MHAT). However, the means by which these models are applied, as well as how they assure quality of care requires continues evaluation and study, given the significant variability of approaches (ibid). Indeed, it has been established that task sharing practices require ongoing training and mentorship of

sufficient quality to succeed, though the exact nature of such quality is debated (Kemp et al., 2019; Atif et al., 2019). For instance, while training programs with improved outcomes and high participant satisfaction have been developed; systematic reviews have shown that lay health workers often experience insufficient supervision or insufficient time on difficult topics (ibid).

The MHAT model is supported by the idea of including Lay Mental Health Workers (LMHWs) in community mental health programs, which provide free bio-psycho-social mental health care to the most vulnerable and economically disadvantaged persons with severe mental illness. This is through a network of community mental health care centers in eight districts of Kerala, namely, Kasargod, Kozhikode, Wayanad, Malappuram, Palakkad, Thrissur, Alappuzha and Kottayam developed over the last 10 years. The key difference between classical institution-based outreach models and the MHAT model is the focus in the latter on the provision of good quality, comprehensive, individualized care in the community through LMHWs working in tandem with professionals. It thus fits into the growing number of practices exploring innovative models of mental health care delivery. The LMHWs are trained to identify people with mental illness in their community and involve in all aspects of comprehensive mental health care delivery. They are from the local partner groups which are formed almost entirely by local volunteers who are responsible for the running of each centre. It is the responsibility of the local partners to arrange the infrastructure to run weekly clinics and for all aspects of care such as medications and rehabilitation.

**Aim and research questions**

Given the importance of tackling the treatment gap, and the role effective training plays in enabling LMHWs to do so, the overall aim of this study was to evaluate a training on psychosocial interventions in a low resource, rural setting. A training consisting of classroom sessions, case-based field work and supervision was developed. The three main questions concern the outcomes of the training program, experiences with the process of delivering the training program and the challenges related to the generalization of the training. Associated research questions that will be answered by means of this study are:

1. Which training methods and supervisory methods do trainees consider helpful and effective?

2. What improvements in knowledge, attitudes and practices did participants and supervisors in the training program identify as resulting from the training?

3. Which challenges do trainees encounter during the first two months of execution of the psychosocial intervention?

## 2. Theoretical foundation: task- sharing, training, knowledge, attitudes and skills (KAS)

### *2.1 Task-Sharing in low-resource settings*

Task shifting or task sharing is a method to make the most out of very limited resources. In task sharing, typically, highly trained professionals pass on low threshold tasks to less trained members of their team, making more efficient use of their time and resources (Kazdin, 2019). The mental health specialist's role shifts from direct service provider toward trainer, supervisor, and consultant and lay mental health workers who follow a short training course are mostly in contact with the clients. Task shifting has the potential to improve mental health care in rural or otherwise underserved settings in low- and high-income countries (Hoeft et al., 2017). The efficacy of such task-shifting methods has been strongly supported in literature (Chibanda et al., 2016a; Chibanda et al., 2016b). A major randomized study of LMHWs in the treatment of anxiety and depression found a significant reduction in symptoms and burden in patients (Patel et al., 2010). As a model of delivery, task shifting is designed to provide interventions on a large scale and to reach individuals who otherwise would not receive services due to limited geographical and or financial access to care.

### *2.2 Training of LMHWs*

Adequate training and supervision have been established as key aspects to ensure that LMHW perform at their optimum level. Well-motivated lay workers who have clarity of the roles in their respective community and have a good relation to the mental health care system, ensure better delivery of psychosocial interventions (Shahmalak et al., 2019). Exploratory studies have consistently identified quality of supervision as having positive effects on lay health workers' job motivation, retention, and satisfaction (Kok et al., 2018;Hill et al., 2014 ). However, the same authors have also observed that if done inappropriately, supervision can also lead to dissatisfaction and reduction in outcomes. In practice, a high variation in supervision of LMHW is observed, in terms of both organization and intensity. For instance, a review on the effect of non-specialist health workers delivering mental, neurological and substance-use disorders (MNS) interventions in primary and community health care in low- and middle-income countries (Van Ginneken et al. 2017), showed variation in supervision of LMHW, from ad-hoc checking (Ali 2003; Tiwari 2010, cited in Van Ginneken et al. 2013; Mutamba et al., 2013) to structured meetings every two weeks

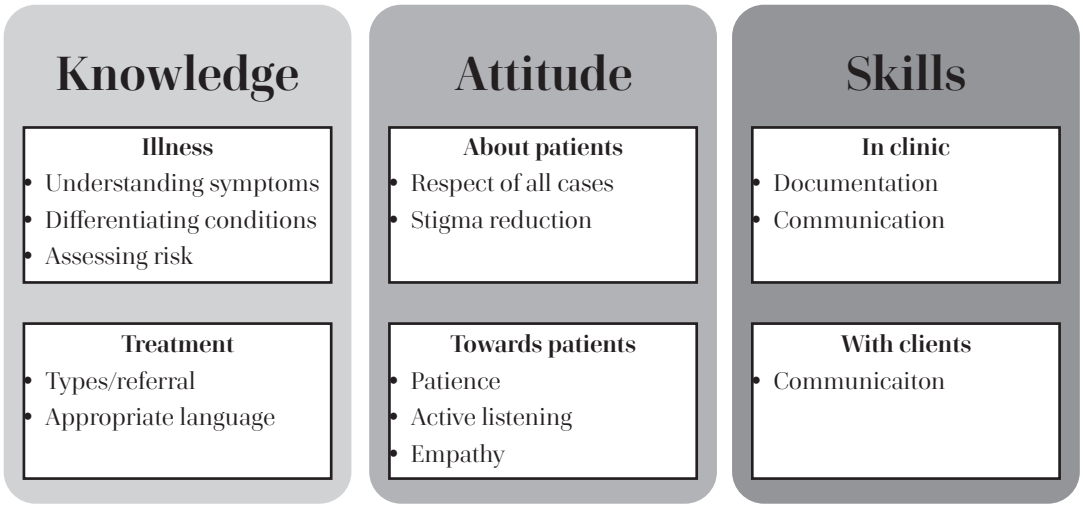
(Baker-Henningham 2005, cited in Van Ginneken et al. 2013; Patel et al. 2010). It is argued that more research is needed on training of lay health workers and supervision models to support effective implementation of task shifting in low-resource settings (Ngo et al., 2013).

In relation to the underlying theory of 'good' supervision, there has been a gradual shift on supervision in low-and-middle-income countries towards so called supportive supervision (Deussom et al., 2022). This comparatively novel best practice in supervision contains elements of observation, performance monitoring, constructive feedback, provider participation and record reviews. This research made use of questions used by Marquez and Kean on the distinction between traditional and supportive supervision (Marquez & Kean, 2002). This involves asking not only when and how supervision happens, but also what happens afterwards. Surprisingly there are no training programs thus far for adult lay mental health workers which incorporate adult learning principles and a supportive supervisory approach (Alhassan, 2012; Mayfield-Johnson, 2011). The lack of regulatory framework, remuneration guidelines and training and essential ethics training are the major challenges mentioned in previous studies regarding task shifting (Madhombiro et al., 2017).

### *2.3 Knowledge, Attitudes and Skills (KAS)*

As may be noted from the research question, this study applies the Knowledge Attitudes and Skills (KAS) framework of competency to evaluate the training. This framework is most often applied within nursing and psychiatric nursing research and was first developed by Bloom et al, in 1956. In consideration of the ways in which its enduring use might be questioned, Cutcliffe& Sloan (2014) extensively reviewed its new applications and the ways in which its continued relevance can be understood. What falls within each of the three categories depends largely on the specialization, however one can note in a broad sense that knowledge relates to cognitive capacities required in a certain function, attitude to affective capacities and skills to psychomotor capacities (ibid). For the purposes of this research, the particular activities and abilities that fall under this framework have been developed in consideration of research relating to KAS of psychiatric nurses in combination with local experiential knowledge from the research team (Cutcliffe & Sloan, 2014).

*Fig 1: Theoretical framework*




## 3. Methodology

### *3.1 Recruitment process*

Participting LMHWs were selected based on the following criteria: resident of an area where MHAT operates; at least 10 years of formal schooling; involved in MHAT clinic for at least one year; no obvious health limitations. Four trainers (two clinical psychologists and two psychiatric social workers) were trained through a workshop by an experienced clinical psychologist.

### *3.2 Delivery of Training*

An eight-week program consisting of weekly 6 hours of classroom training, minimum 12 hours of assigned field work for case-based learning, and two months of supportive supervision was delivered. The training methods aimed to develop the LMHWs knowledge, skills and attitudes through the use of lectures, interactive discussions, brainstorming, small group discussions, simulation games, role plays including video recording and feedback, clinical case presentations and assignments.

*3.3 Data collection and analysis*

In the present study, we evaluated the training program, using a set of different methods and tools including participant observation, surveys, and interviews. The data were triangulated, in order to increase the validity of the findings. In the following paragraphs, each of the applied methods is described in detail, clustered into the three main parts: classroom training, case-based learning, and supportive supervision. Table 1 gives an overview the applied methods to answer each of the research questions.

*Table 1. Overview of methods applied to seek answers to the research questions*

| Part of the training / Methods applied / Research Questions | | Classroom training | | Case-based learning | | Supportive supervision during the intervention | |
|---|---|---|---|---|---|---|---|
| | Field notes | Reflections on classroom training | Knowledge test | Monitoring the improvement of skills | Reflection on pilot intervention | Trainees' self-reflection on training | Reflection on supervision |
| Outcomes: Change in knowledge | | X | X | | | X | |
| Change in attitudes and attributes | X | | | | | X | |
| Change in skills | X[1] | | | X | | | |
| Feasibility of applying the training in practice | | | | | X | | X |
| Process: Effective training delivery methods | | X | | | | X | |
| Suitable method of supervision | | | | | | | X |
| Challenges: Aspects to be taken into account when generalizing the training | X | | | | X | | X |

Throughout the whole training process, the trainer who is also the researcher took field notes (see for example Phillippi& Lauderdale, 2017), monitoring changes continuously. Notes of conversations regarding the supervisors' observations of the trainees' progress were written down. Also, she noted observations made during the training and when evaluating the trainees' assignments (see below).

**A. Methods applied to evaluate the classroom training**

*Reflections on classroom training*

In order to assess changes in knowledge and evaluate the training delivery methods, LMHWs submitted written reflections on the training after each training session. They were asked to reflect on two questions, namely "How did the class content help you?" and "What are the merits and demerits of the class and of the trainer?". Data analysis focused mainly on extracting the positive and the negative feedback of the trainees.

*Knowledge test*

In order to assess changes in knowledge, a knowledge test consisting of 9 items based on the content of the training module was taken once before the start of the training and once at the end of the last session. The test was administered by persons who were not involved in the training and it took 45 minutes to administer. Because the participants had difficulties in writing out their answers, the test was administered orally and the responses were audio-taped, transcribed and compared qualitatively by using answer key to analyze the content of answers

What are severe mental illnesses and common mental illnesses? What are the methods of treatment used in treatment of severe mental illnesses?

What are specific factors and common factors in psychosocial interventions?

What is family psychoeducation?

What is activity scheduling? How will you set a goal in activity scheduling?

What do you know about social skill training?

What do you know about assertiveness skill training?

What do you know about expressed emotions and its management?

What do you know about family communication training?

What do you know about problem solving training?

**B. Methods applied to evaluate the case-based learning**

*Monitoring the improvement of trainees' skills*

To assess the improvement of the relevant skills, an assignment for each component of the training was given. All trainees were assigned clients that they saw for each of their assignments. For six of the assignments, the trainees had to videotape themselves conducting a session with their client, as they had learned in the training. They had to show the video to the trainers and their fellow trainees and received feedback. The other assignments consisted of conducting a case study based on the training provided. This entailed writing an assessment of their clients, including his or her needs, and to provide a detailed plan for a psycho-social intervention including goal setting. Trainees were asked to adjust the case study after each training session and show it to the trainers. The trainer documented her observations regarding the improvement of skills and competences, including micro skills such as how to approach a client, from one assignment to the next in the form of field notes. These were subsequently analyzed.

*Trainees self reflection*

On the last day of training, reflective notes were administered in the form of a self-report in order to assess changes in knowledge and attributes as well as to evaluate the training delivery methods. The reports consisted of a personal self-reflection on perceived behavioral and attitudinal changes as a result of the training program. To analyze the data, these reports were coded inductively.

**C. Methods applied to evaluate the supportive supervision during the execution**

*Reflection on pilot intervention*

Subsequent to the skill training assignment, in four cases interviews took place with trainees, clients and their caretakers in their families. Their aim was to evaluate the feasibility of applying the training in practice and uncover aspects that would need to be taken into account when generalizing the training. These interviews focused on the feasibility of the intervention, and circled around questions such as in how far the client and the fam-

ily appreciated the intervention and reflections on the process of the intervention. Data were transcribed and qualitatively analyzed.

*Reflection on supervision process*

In order to evaluate the feasibility of applying the training in practice as well as the suitability of the supervision methods and to uncover potential challenges when aiming to generalize the training, at the end of the two months execution period, one supervisor and all trainees were interviewed using semi-structured interview guides. The interviews lasted on average for 45 minutes.

Trainees and supervisors were asked about the supervision process; its impact; how often supervision took place and in what form; and how they felt about it. The emphasis on supportive supervision including the incorporation of self-assessment and peer assessment is inspired by the approach to supervision suggested by Marquez and Kean (2002).

### *3.4 Ethical considerations*

The institutional house ethical committee of MHAT granted ethical approval as the study did not involve any invasive or drug related pharmacological interventions.

## 4. FINDINGS

The findings of this research are structured thematically in relation to the research questions. After discussing the participants' demographics, the results are divided into three parts pertaining to an evaluation of the process of the training, evaluation of the outcomes of the training and finally a discussion of the challenges associated with the training.

### *4.1 Demographics of participants*

Seventeen participants joined the training in community-based psychosocial intervention for severe mental illness in order to become Lay Mental Health Workers (LMHW). Participants were selected from four Northern districts of Kerala. As the training progressed, four participants dropped out due to various reasons, including physical illness related issues, financial crisis, road traffic accident and other personal obligations The remaining 13 (5 males and 8 females) were in the age between 22-56 years. In terms of education, eight had completed ten years of formal schooling; three had completed twelve years of formal schooling and two were graduates of Calicut University. Five of them were homemakers

and of the remaining, two were engaged in part-time employment, two were employed full-time, two were self-employed and one was unemployed. Nine of them were from the lowest socio-economic classes, belonging to the Below Poverty Line – defined as annual family income being less than INR 50,000 (Less than $800). Two were Hindus, nine were Muslims and two were Christians and all, except two, were married. In addition, all had active engagement with health- and religious community groups in the region.

### *4.2 Evaluation of Process*

Firstly, the training intervention will be evaluated on the basis of the process, namely how the delivery methods were received by participants, how the supervision aspect was carried out in practice, and finally a judgment on the feasibility of this type of intervention in the context.

#### *Training*

In terms of those aspects deemed particularly successful or useful by participants, special mention was made of the role-playing method of training, as well as the one-on-one attention given to each participant.

> *"The role play method helped me to grasp techniques in an easy way...which helped me to remember things."* (P1)

> *"The individual attention you provided was so helpful to correct my knowledge"* (P2)

By contrast, some participants also identified key areas for improvement. For instance some participants indicated that they had difficulty in grasping English terms which were used (such as the names of psychological techniques and names of disorders for which there are no equivalents in the local language) which they provided as corrective feedback.

> *"I felt difficulty in following some words like empathy, reinforcement, schizophrenia, depression etc...."* (P9)

Further complaints related to the more conversational structure of the training, as well as the logistics around the training.

> *"It would be really helpful if more lectures were given in the class. Doubts should be cleared up more frequently."* (P1)

> *"I think the time keeping of the class was bit strict. Time should be given to relax a bit".*

*Supervision*

Themes emerging from participant records, supervisor interviews and post-supervisory participant interviews were synthesized into the key points below.

Concerning the timing, the supervisor and all participants confirmed the regularity of weekly on-site supervisions and daily needs-based supervision over phone in a two months period. An average of 30 needs-based supervision phone calls were done by each LMHW for two months of time. A total average of 8 times of on-site supervision were done for each LMHWs.

According to both participants and supervisors, the needs-based telephonic supervisions focused mainly on clarification of theoretical principles, planning for next day's session and discussions on personal and organizational level problem solving.

> *"I discuss personal and organizational issues which hinder my work with my supervisor over phone. The supervisor listens carefully and analyses the problems and helps me to solve it effectively. So, it is like a huge stress release for me."* (P7)

> *"Most of the time, they were calling me for resolution of organizational level problems. I just supported them. That was enough"* (Supervisor)

Participants indicated a general appreciation of the combination of positive and corrective feedback as well as the opportunity to ask specific clarifying questions through ongoing supervision, as indicated by Participant 1:

> *"I am just happy about being supervised over phone because when you call the supervisors you can be congratulated or corrected, so I am happy about it. It provides me confidence"* (P1)

Indeed, some participants noted that the benefits of clarifying principles and techniques of interventions are such that ongoing training and supervision on the topic would be beneficial.

> *"The clarification of techniques and their principles of intervention has enlightened me and increased my working ability and made the community to like me. I urge them to provide us with more training sessions regularly; they should not get tired of doing that."* (P6)

Continuous avoidance of supervision sessions and absence without prior information were dealt with under supervision by reminders and emphasis of the offered support and importance of their new role.

> *"Initially I was trying to continuously avoid the supervision...Because I was anxious... but my supervisor was understanding me...that approachable nature helped me to reduce my anxiety in discussion and conducting sessions"* (P5)

Overall, participants indicated that the supervision was beneficial for improving their communication and assertiveness and clarifying best practices in unfamiliar situations. For instance, supervisors played a significant role in clarifying the scope and responsibility of LMHWs. Furthermore, given the LMHW's diverse backgrounds and lack of specialized expertise, the supervisors provided the valuable function of supporting and giving positive feedback that helped build confidence. When asked after the conclusion of the supervision, most trainees indicated they were satisfied with their supervisor's approach, as cited in examples below.

> *"...my supervisor helped me to solve the issue in the organization...I learned the way of solving such issues. That helped me deal with other issues...."* (P10)

> *"...I began to use those skills in my personal life also"* (P 9)

> *"...supervisor helped me to make me aware about what I know..."* (P6)

Moreover, the nature of corrective feedback and its ongoing benefits were noted by participants. For instance, simplification of psychological techniques was detected in three participants:

> *"...I was thinking that these techniques are very simple...no need of proper preparation.... Now I realize that there are some principles behind all these techniques..."* (P7)

Non punitive way of supervision improved standards of performances. All participants gave similar response in this theme.

> *"In the previous occasion, I was not punctual...But with supervisor's corrective feedback I understood my mistake...supervisor was continuously monitoring me. That helped me correct fine issues..."* (P3)

> *"She was dealing how psychologists do. I was more comfortable with her than the psychologist. She understood me more than others"* (P1)

*Feasibility of applying the intervention in practice*

The primary focus concerning feasibility within the interviews was on the acceptability of LMHWs as care providers by the community they serve, on the basis of the knowledge gained in training. Indeed, as seen in the quotes of participants' clients below, acceptability was sufficiently high.

> *"She is interacting better than clinician….it is easier to communicate because we know her very much…. the way she listens helps a lot…."* (Family member of patient of P11)

> *"She comes to our home and sits with us patiently. She always appreciates my son for each and every steps… "* (Family member of patient of P10)

> *"He has given me a time table to follow daily activities…. he encourages me…now I am doing all the activities he has given."* (P9)

### *4.3 Outcomes of Training*

Concerning the success of the training itself, the study found improvements in LMHWs' knowledge and understanding of principles and techniques of psychosocial family interventions, as was already presented in Pallikkuth (2021). Changes in attitude were also seen, for instance regarding opinion on the possibility of recovery from severe mental illness. Furthermore, changes in skills, personal attributes and inter-personal skills were noted in individuals who had undergone the training. The following sections of the paper outline these findings in more detail, starting with outcomes of the training, followed by challenges.

*Improved knowledge*

As the following quote illustrates, the trainees perceived themselves to have substantially gained knowledge with regard to the very concept of mental illness. One trainee wrote in her/his self-reflection:

> *"I had no idea about mental illness and the problems that the patients and their family faced when I first joined the clinic as a volunteer. I got relevant details about mental disorders and its effects through this training class."* (P12)

Yet, it seemed in the reflections that more than taking note of their new knowledge on categorizing mental illness, most responses occurred on a more conceptual level. For instance, curability was a topic that was raised extensively. In their writing, trainees described curability of mental illness as a novelty, as one trainee noted:

*"I could also understand that the bad impression about mental disorder that it is incurable was false."* (P1)

This perspective was confirmed by another trainee:

*"I was able to understand that this illness can be cured and the family members and public plays an important role in changing the patient."* (P4)

Notably, this quote also demonstrates a second theme of conceptual knowledge about mental health, relating to its social embeddedness and the role of communities and families. Further responses, such as that of participant 7, indicated the importance of the 'situation at home' in treating mental illness. Yet, another participant underlined that finding solutions for problems needs to be done in interaction with family members:

*"I was able to understand that the problems faced by the family members and patients are to be discussed among themselves and make them find apt solutions for the problems."* (P8).

Through the knowledge test it was further established that baseline information about psychiatric illness was already fairly well developed, though some improvement after the training was still seen.

*Treatment of mental illness*

Another aspect of knowledge that was clear from the self-reflection of the trainees at the end of the training as well as from the reflections on the training concerned the treatment of mental illness. Participants talked both about care for mental illness in general and about their own gained competences on how to provide care. This involved knowledge gained both on a general baseline level, as indicated in the first quote below, and more specific knowledge, for instance on the treatment of relapse or the importance of taking case histories, as shown in the second and third quotes respectively.

*"I was also able to understand how changes can be brought in the behavior of the patients and also the family members of these patients. With these changes the intensity of the disease can be reduced."* (P2)

*"I was able to understand how to resist the return of disease during the time of intake of medications. Also was able to understand relapse prevention. I was able to understand that the importance of finding the root causes to the problems and find apt solutions other than taking random measures."* (P6)

*"Previously, I am aware of the case history taking and mental status examination. There are some areas like socio-demographic details, chief complaints, History of present illness, past psychiatric illness, family history, personal history and different tests in mental status examination are need to be assessed. I can elicit delusions and hallucinations. Delusions are the disorders of content of thought and hallucinations are perceptual disorders. Now I know how important it is in diagnosing an illness."* (P11)

This improved knowledge was accompanied for some with a specific attitude change in terms of increased confidence in their ability to manage situations and take responsibility, showing the overlap between aspects of the framework. One participant expressed:

*"Now I got a feeling that I will be able to understand the problems of the patients and their family members and solve their problems. I was able to understand how to deal with the problems of my family life and now I have the confidence that I will be able to bring back the patients in the society and for getting them acceptance in their family. This helped me to have the potential to make the public aware of this disease and its effects."* (P11).

These findings concerning knowledge gain through the training were corroborated by the knowledge test administered before- and after training which showed marked improvements in knowledge regarding all items measured, though most particularly in sections on interventions and psycho-social support (Pallikkuth et al., 2021). After training participants were better able to identify different types of interventions and possibilities, the techniques required to carry them out and the principles they were based on. The test further showed improved knowledge on applying needs assessments and taking case histories for severe mental illness with patients and family as a prerequisite for treatment, where all participants answered 'I don't know' in the pre-test, and the vast majority had full marks in the post-test. Specific activities on which knowledge was gained included activity scheduling, goal setting, family psycho education, social skill training, assertiveness skill training, handling expressed emotions, communication training, problem solving training and relapse prevention training. All participants similarly answered 'I don't know' on questions concerning these interventions prior to the training, which shows a substantial difference to later reflections from participants such as P7:

*"Family members of individuals with serious mental illnesses are involved in long term care. Families play very important (role) in detecting symptoms, medication monitoring and managing home. Family psychoeducation is a potential resource for both individuals with severe mental illnesses and their family members, designed to engage, understand and support family members so that they can better assist in managing their*

*illness. Here we need to listen carefully about family's distress, attitudes and understandings about the illness which is crucial. Making good rapport with family is very important. After the proper listening, we should educate about their symptoms, treatment, prognosis, medicines' effects, side effects and prognosis.*" (P7)

Similar changes in knowledge were identified for activity scheduling and training, where beyond the improvements in the test, reflections show an improved understanding of underlying principles of the techniques.

*"Activity scheduling consists of two steps…Activity monitoring and activity scheduling which is very important in improving functioning of the patients…"* (P 9)

*"Breakdown of macro skills to micro skills is very important. We need to teach them the importance of learning these skills especially social skills and assertiveness skills. Role-play method and home work assignments are using to train these skills. Positive and corrective feedbacks are important in skill training. Similar kind of techniques is used in training families in handling emotions, problem solving skills and communication training"* (P11)

*Changes in attitudes*

Concerning developments in the attitude's aspect of the framework, this study differentiated between attitudes about patients and attitudes towards patients. This is significant as underlying assumptions and communicative strategies each have their own significance in clinical practice. Concerning the former, almost all participants (12/13) showed significantly increased optimism about the efficacy of treatments for mental illness, and the vast majority (10/13) showed marked improvement in outcomes related to stigma, empathy towards patients and non-judgmental attitudes. These changes were also identified by participants in their own reflection.

*"I can empathize more with the patient now...I can get to know them..."* (P13)

*"I can care them without judgment"* (P10)

Concerning their attitude in interaction with patients and other people, the post-training test showed significant improvements in a whole retinue of abilities including problem solving skills (9/13 marked improvement, 3/13 some improvement), emotional regulation (6/13 marked improvement, 3/13 some improvement), distress tolerance (7/13 marked improvement, 6/13 some improvement) and active listening (6/13 marked improvement

and 6/13 some improvement). The only attitude outcome that showed minimal improvement was the confidence level of the participants, where only 4/13 showed a marked improvement. In the reflections, several participants noted the new listening skills they had gained in particular

> *"Now I started to listen to others."* (P6)

> *"Now I am applying the behavioral techniques in day-to-day problem solving.... Now I am able to show the skill of active listening..."* (P9)

Interestingly, one participant also indicated that the changes from the training were also visible in their private life:

> *"My family members are noticing lots of changes in me.... even me.... reduced short temperedness.... overall attitude towards human beings also changed...I became more tolerant now....my attitude towards mental illness also changed...we should not discriminate.... recovery is possible..."* (P11)

*Changes in skills*

Concerning skills, the framework of this paper distinguishes between skills in the clinical setting and those related to patient interaction. Given that skills are understood as the practical application of knowledge, for the latter aspect this study involved the submission of recorded videos o sessions conducted with a client which the trainers were then able to discuss in their evaluation report. This resulted in concrete evaluations of trainee skills over time, where for instance the communication skills of P6. were evaluated through multiple attempts.

> *"She needs to improve the quality of controlling sessions, while conducting group session with family."* (Remarks from trainer, video assignment 1, (P 6)

> *"She has improved the skill of controlling session, while conducting group session with family. Now she is facilitating the session tactfully. Her questioning skills and listening skills also improved a lot"* (Remarks from trainer, video assignment 1, on third resubmission (P6)

Similarly, P9 was able to develop their communication skills regarding patience and assertiveness.

*"He needs to improve the skill of patience in skill training session, while conducting group session in social skill and assertiveness skill training."* (Remarks from trainer, video assignment 3, P 9)

*"I think he has taken feedbacks from the last video presentation positively and he surprisingly a noticeable change is obvious in this third video on social skill training."* (Remarks from trainer, video assignment 3, P 9)

The trainer's evaluation report also demonstrated improvements of the more clinical skillset of documentation, for instance relating to needs assessments and case histories:

*"Now, 9 of them improved their skills to elicit symptoms and how to write it. Each of them had presented one case in front of my trainer three times after different kinds of re work ups. In the last presentation, the trainer gave me 8 marks out of 10. Now they are very confident in assessment of psychosocial needs of patients"* (Trainer II, case presentation evaluation

Unfortunately, evaluating professional communication skills between trainees and other health care practitioners proved to be beyond the scope of the data of this study.

### *4.4 Challenges*

The last part of the analysis focuses on challenges encountered by the participants in the execution of the psycho-social interventions during the period of training. Some challenges were also encountered in relation to the execution of the training which are discussed last. Concerning participants, three levels of challenges were identified.

The first level of challenges was related to power conflicts in community clinics with authority figures who were not trained in psychosocial interventions. One LMHW said:

*"All of us are facing the organizational level issue of power conflicts with existing non-trained volunteers and non-acceptance of the lay mental health workers responsibility by the community clinics' authorities".*

The second level of challenges were regarding personal issues such as perceived lack of enough formal educational qualification, anxiety oversimplification of psychological techniques and difficulty in maintaining boundary between professional and personal issues. This was reported by all three participants and the supervisors. e.g.;

*"...the thought about my lack of formal educational qualification is making me more defendants..."* (P 6)

*"The lack of confidence is making me more anxious and facing fear to answer any questions from anyone ..."* (P7)

*"They have skills...but the only lack is confidence..."* (Supervisor)

Five of them were very anxious and continuously avoided supervision sessions and were absent without prior information. One LMHW said:

*"I was trying to continuously avoid the supervision...Because I was extremely anxious..."* (P5)

Oversimplification of psychological techniques was noticed in three participants which was subsequently reduced by corrective feedback from the supervisors.

*"...I was thinking that these techniques so simple...just common sense.....no need of proper preparation...."* (P9)

Four among them faced issues in maintaining boundaries between personal and professional life, and one of them expressed their main challenge as:

*"... .. I don't know where to draw the boundary. I am facing difficulty in balancing both family life and professional life..."* (P5)

The third level of challenge was regarding the conduct, aims, or qualities that characterize that role. As per the supervisor's feedback, there were problems in reporting leaves, documentation, setting limit for duration of session and fixing session agenda were noticed as challenges which affect the quality of intervention delivery.

*"Entire participants were facing difficulty in having professionalism, discipline, problems in establishing therapeutic relationship and insufficient clarity in goals and principles"* (Supervisor)

Finally, some challenges were also experienced in carrying out this training that has implications for future up-scaling. Firstly, the supervisors themselves were inexperienced in their role:

*"In our academic training period, I am not getting supervision and training for LMHWs. This was a new experience for me. I was also learning new things..."* (Supervisor)

The second challenge is the time and cost for supervision. There should be a systematic, on-going regular fundamental and basic level of supportive supervision can improve the standards of performance. That can be onsite supervision, telephonic or group supervision. This regular quality monitoring while supervision of the intervention delivery improved the quality of intervention delivery. This kind of supervision is time consuming and it needs more number of supervisors which increases the cost. Participant said:

> *"We need systematic regular onsite supervision which can improve our quality of work"* (P6)

**5. Discussion**

There is a pervasive mental health treatment gap in low resource settings which is linked to significant impacts on quality of life, earning capacity and thus the wellbeing of entire families (Baron et al., 2020; Chronister et al., 2015; Mendenhall et al., 2014; Hanlon et al., 2014) . Innovative models of care aiming to address this gap have been developed which involve the training of Lay Mental Health Workers, however the diversity in training practices and thus quality have resulted in a need for critical reflection and ongoing evaluation of training programs (Kok, et al., 2018; Liu et al., 2016). This study covered the evaluation of preliminary support training for Lay Mental Health Workers (LMHW) for the delivery of psychosocial interventions for severe mental illness in low resource settings in India, through use of the KAS framework of clinical competency. The data seems to give the impression that participation in this training over the course of two months was helpful for most LMHWs to develop beginning level proficiency in delivering these interventions on the basis of Knowledge, Attitudes and Skills. This confirms the finding of previous studies that LMHWs can be trained to deliver psychosocial interventions for persons with severe mental illness (Patel, Weiss, et al., 2010; 2011; Balaji et al., 2012; Mendenhall et al., 2014).

However, though the majority of the participants improved through the program, it is worth noting that this improvement was not uniform in a small portion of participants. Given that all were volunteers, their interest in the training cannot be doubted. There are multiple possible explanations for this finding where it might be caused for instance by a baseline difference in attitude or previous education, or rather that adult education may encounter a certain degree of cognitive resistance or struggle (Mazzonna & Peracchi, 2018; Anderson, 2005).

In terms of the format of training, all participants responded positively to the role-play method, which is consistent with theories on adult learning which says that adults are good

in participatory learning (Dweck et al., 2011; Strawberg, 1999; Muneja, 2015; Knowles et al., 2014). Some participants expressed difficulty with the language complexity and English terminology; however the introduction of concepts through role play mitigated this issue.

The findings relating to attitude changes, for instance the increased optimism and reduced stigma was also observed in other research in relation to field work in mental health, emphasizing the importance of the practical elements of the training (Dweck, et al., 2011). Similarly, the improvements in communication skills observed in the majority of the participants were corroborated in research, though the lack of improvement in some participants in this aspect was not found elsewhere (Balaji, et al., 2012; Rahman et al., 2021). The findings on acceptability from society are consistent with the previous studies (Mendenhall et al., 2014; Padmanathan& De Silva, 2013; Balaji, et al., 2012). These findings also link to the concept of supportive supervision, which is said to promote quality on all levels of the health system by strengthening relationships, identifying problems quickly, promoting high standards and better communication (Marquez & Kean, 2002; Jaskiewicz & Tulenko, 2012). These findings corroborate the ideas of Hill et al. (2014), who suggested that supportive supervision is the effective way of approach for lay health workers to improve their productivity and quality. Many health professionals lack the background to provide a supportive environment for LMHWs (Haines et al., 2007; Spedding et al., 2014).

Concerning the challenges faced in this training, our findings differentiate between personal and organizational levels of challenges. The most important findings in personal levels were that the LMHW's lack of confidence and anxieties that lead to issues such as lack of attendance, fear of authority and oversimplification of certain processes. A possible explanation for these may be the lack of adequate time duration for the training and supervision to focus on their personal growth (Jaskiewicz et al., 2012).

As a recommendation for future practice, this study highlights the need for screening in recruiting processes of LMHWs as this may resolve the issues of motivation issues, drop out and difficulty progressing. Similarly increasing the duration of the training might better address issues with confidence or difficulty learning, which could be supplemented by a focus on empowerment of LMHWs as well as the distinction between personal and interpersonal development. However, given the organizational challenges with sustainable implementation of training with resource constraints, further solutions regarding investment of time and human resources will be needed to make such implementations viable. For instance, a group approach to supportive supervision combined with support and training for supervisors would ensure a supportive supervision strategy that efficiently uses the short time that supervisors have to conduct good supervision. This would also

help LMHWs to develop problem-solving skills as a group through mutual support and supervisors to come together for a common training to explore and build on their existing strengths. Training LMHWs on what to expect from supervision, empowering them to seek advice and encouraging them to seek support from other monitoring systems can further empower LMHWs as community agents.

The limitations of the study include the sample size, sampling method employed and the qualitative methods used which makes it difficult to comment on the representative nature of the study. The fact that there was only one supervisor involved in the study also points to the bias that may have occurred.

## 6. Conclusion

We conclude that it is possible to train lay health workers to deliver psychosocial interventions for people with severe mental disorders and their families in rural India. In low resource settings, there is a significant treatment gap for mental illness. Innovative intervention delivery methods have been created, involving the education of lay mental health workers. In this study, support training for LMHWs delivering psychosocial interventions for severe mental illness in India was evaluated. These findings relate to the idea of supportive supervision, which is thought to encourage quality throughout the entire health system. In order to address concerns with motivation, dropout rates, and difficulty progressing, this study emphasises the necessity of screening in hiring procedures.

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Chapter 6

# Design and Evaluation of Peer Supervision for Community Mental Health Workers: A Task-sharing Strategy in Low-Resource Settings

**Abstract**

The use of Lay Mental Health Workers (LMHWs) to tackle the treatment gap in low-resource settings is well established, and although training for LMHW is widely used, thepotential of proper supervision to improve outcomes remains untapped. Indeed, given the strain on expert resources, peer-supervision models based on seniority of work experience have significant potential especially in relation to community knowledge and embedding of LMHWs. This study summarizes the evaluation of a pilot program for peer-supervision on the basis of Social Cognitive Theories of Self-Efficacy for LMHWs in Kerala, India. Two experienced LMHWs worked as supervisors for a total of 12 LMHWs over the course of a year. These participants were subsequently interviewed to analyze their experiences in order to evaluate the potential of peer supervision and distil relevant information to improve future training of LMHWs. The role of self-care, physical and emotional wellbeing was emphasized just as strongly as in Bandura's work in study. Peer supervision provided encouragement, rather than criticism or blame, when LMHWs were struggling. Managing stress, creating a work–life balance and navigating difficulties and emergencies posed challenges for participants.

## 1. Introduction

Mental disorders are a leading cause of disability and account for approximately 23%of all years lived with disability worldwide (Huang & Xu, 2020; Whiteford, Ferrari &

Degenhardt, 2016). In low-resource settings there are often significant treatment gaps, with 75% of those with a mental disorder never receiving proper care (Thornicroft et al., 2017). There is a need for services which are feasible, scalable, and sustainable in such contexts, especially given the critical shortages of financial and human resources (Davies&Lund, 2017; Patel, Weiss, Chowdhary et al., 2010).It has been argued that low- and middle-income countries (LIMCs) would benefit from health models that do not rely too much on specialized mental health professionals for interventions, for instance by employing Lay Mental Health Workers (LMHWs), to increase access to existing mental health services (World Health Organization, 2018;Mutamba, van Ginneken & Paintain et al., 2013; Kola, 2020).This approach, which has been developed to close the mental health gaps in LMICs relates to the concept of task sharing, which is explained by Kemp, Petersen &Bhana et al. (2019, p. 150) as;

'An arrangement in which generalists—non-specialist health professionals, lay workers, affected individuals, or informal caregivers—receive training and appropriate supervision by mental health specialists and screen for or diagnose mental disorders and treat or monitor people affected by them.'

This approach has proven feasible and effective in helping patients with mental health problems in circumstances where there are few available resources (e.g., Kakuma et al., 2011). Yet studies also indicate a need for building LMHWs' confidence and competence in their work with mental health patients (Herschell et al., 2010; Kohrt et al., 2018; Pallikuth et al., 2021). For instance, Kemp et al. (2019) found that besides the need for proper training in basic skills, it is necessary to address proper supervision and mentorship to establish a continuous learning cycle, so that situations such as faulty diagnosis and treatment of patients can be corrected and positive behaviors can be reinforced through reflection and feedback cycles. One condition, evident from concerns about resource constraints, is that the supervisory model should not be too costly, and be relatively easy to apply. In this context, peer-supervision has been suggested as sustainable alternative to clinical one-to-one supervision (e.g., Hill et al., 2014).Understanding how to strengthen the needed confidence and competence in LMHWs requires a structured approach, for which Bandura's model of ways to improve self-effifacy (individuals' belief in their ability to perform a given task) presents a useful tool (1995).The general self-efficacy literature suggests that it is an effective predictor of performance (Bandura &Adams, 1977; Bandura et al., 1977; Bandura et al., 1980). More importantly, it suggests that self-efficacy predicts performance outcomes better for some areas, such as improving the quality of care, teamwork, administrative support, self-care and emotional support.

### *1.1 Peer supervision*

Peer-supervision is defined as an approach in which selected lay health workers take on supervisory roles to enable peer-to-peer learning, support and problem solving (Hu, 2014; Amanvermez et al., 2020). In clinical settings, such supervision particularly focuses on those aspects of work that require prolonged periods of supervision and training (ibid). Some studies experimenting with peer-supervision have found it a cost-effective alternative to standard supervision (Hu, 2014; Hill et al., 2014; Henry et al., 2016; Ngabo et al., 2012; Chang et al., 2011). In particular, it has been shown to result in greater commitment to work, and to more creative problem solving (Ngabo et al., 2012). Peer supervision does not require the presence of fully accredited experts, but relies instead on a supervision process that emphasizes critical and supportive feedback, rather than direct monitoring of work (Basa, V., 2018). In the context of LMHWs particular challenges may arise in relation to the self-esteem of the supervisors themselves, given a tendancy to undervalue experiential knowledge, yet it is likely through mutually supportive interactions that this can be overcome.

Given the importance of supporting effective, feasible practice in low-resource settings that adapt to the local context, peer supervision is an essential aspect of discussion and development in this field of research. Peer supervision can take many forms—from group meetings for problem-solving to one-to-one observation and feedback where stronger peers support weaker ones (Crigler et al., 2013; Hill et al., 2014). One of its advantages is the way that peers are uniquely placed to empathize with each other in a more equal exchange, in contrast to traditional hierarchical supervision. Components of peer supervision differ depending on the specific study, but frequently include an emphasis on the quality of care, self-assessment, checklists and multi-level supervision (Rothwell et al., 2019).

Given the increasing use of LMHWs to provide health services and the documented role that quality supervision can play in maintaining the performance and motivation of formal health workers and LMHWs, there is a critical need for knowledge about effective peer supervision strategies and their implementation (Assegaai & Schneider, 2019; Aftab et al., 2018; Schwarz et al., 2019; Kok et al., 2017; Roberton et al., 2015). Some studies have examined the changes in self-efficacy beliefs during peer supervision, with improvement related to five areas: skills, process, handling patients' difficult behavior, cultural competence, and awareness of ethical values(Assegaai& Schneider, 2019; Aftab et al., 2018; Schwarz et al., 2019).

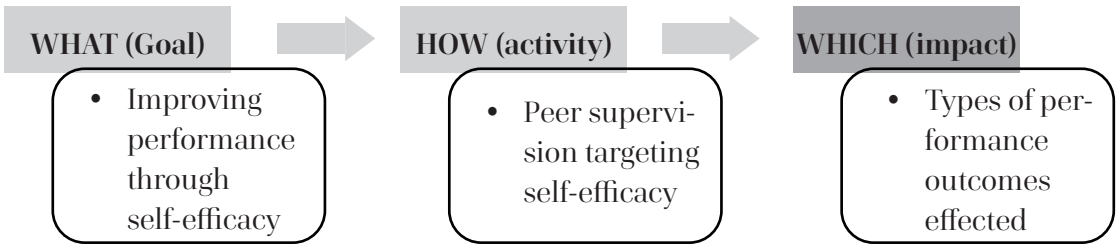
*1.2 Peer supervision in culturally diverse LIMC contexts*

Peer supervision has been found to facilitate reflection, sharing ideas, personal growth and self-care skills (Tseng et al., 2019; Schumann et al., 2020; Glassburn et al., 2019; O'Donovan et al., 2018; Posluns & Gall, 2019). Some studies show that there may be resistance in specific contexts relating to conflicts with organizational culture, fearing value-based judgements based on supervision or lack of trust/availability of internal supervisors (Hill et al., 2014). For example, in one study in India, supervisors did not like participatory problem solving as they preferred to maintain their hierarchical status (Haas, 2020).

While peer supervision for lay health workers in low-resource settings has been researched in the past, there have been more recent considerations concerning emotional support and contextual issues surrounding hierarchy. The definition of peer supervision mentioned above suggests a need for empirical research evaluating the implementation of peer-supervisory models in specific LIMC contexts (Haas, 2020). Peer supervision is a promising way to strengthen the function of LMHWsin the treatment of mental illness in low-resource settings on the basis of their practical knowledge, but only when conducted in a manner that fits the cultural setting, values and expectations (Haas, 2020).

The present research aims to understand the practical application of peer supervision in one community clinic in India in relation to how peer supervision might affect self-efficacy and the possible consequences for performance outcomes, in the hope that this might generate more insights for future application in low-resource settings (see Figure 1). The study addresses three sub-goals: first, to reflect on the use and evaluation of peer supervision in the workplace; second, to identify what types of problems LMHWs encounter; and third, to determine what can be learned about the best way to respond, by analyzing the supervisory practices in relation to LMHWs' role and functioning in their communities, and how these can also be used to improve the training and supervision practices in the future.

**Figure 1. Study aims and structure**



## 2. Theoretical Framework

*Self-efficacy*

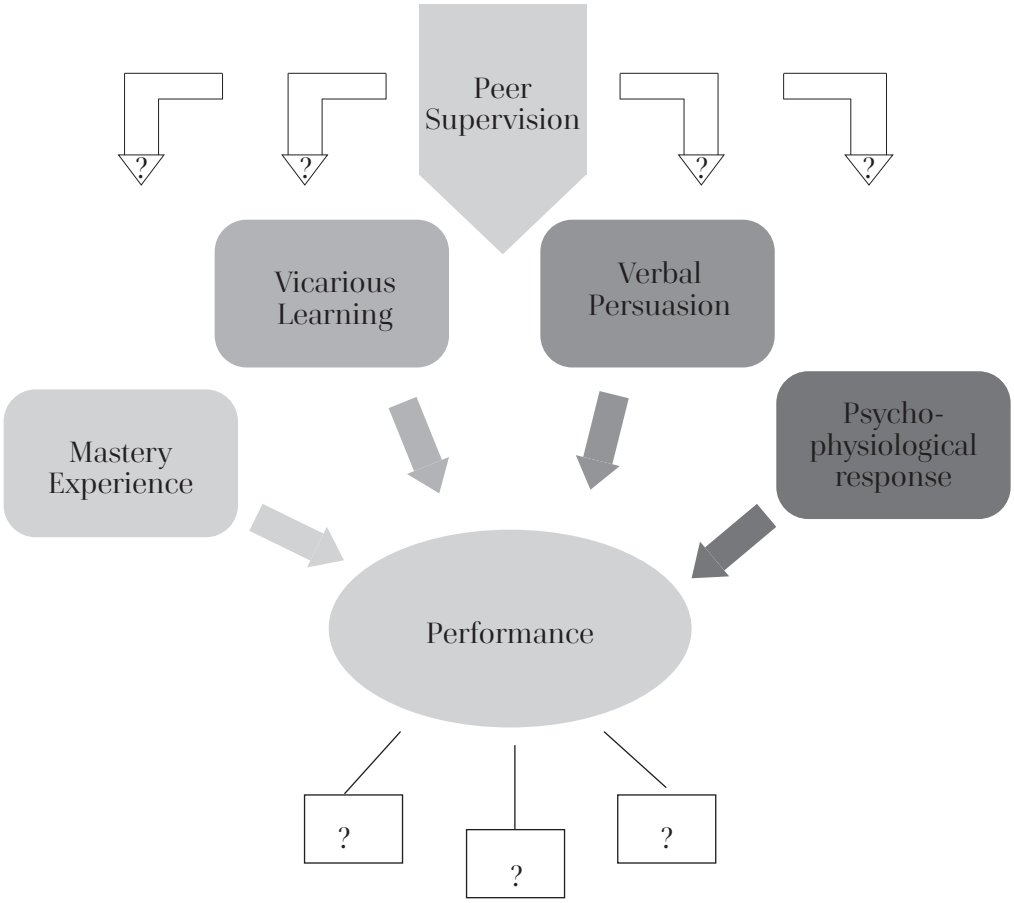
Self-efficacy can be understood as people's beliefs or judgments about their ability to accomplish a given goal or task (Bandura, 1995). It is also a recognized measure of development in the mental health field, has a positive influence on work-related performance, and consequently works as an outcome and developmental consideration for training mental health workers(Bandura, 1982; Stajkovic& Luthans, 1998; Larson & Daniels, 1998). In addition, there is a substantial body of published research examining those who are undergoing training in mental health and their self-efficacy (e.g., Barbee et al., 2003; Cashwell & Dooley, 2001; Kozina et al., 2010; Melchert, Hays, Wiljanen & Kolocek, 1996; Tang et al., 2004). There is, however, only limited research on LMHWs' development of self-efficacy in a longitudinal fashion based upon their experiences in a task-shared community mental health setting.

The theoretical framework for this study is based on Bandura's Social Cognitive Theory (SCT) (see Figure 1). The research used Bandura's four proposed aspects of self-efficacy development—experience of mastery, vicarious learning, verbal persuasion, and affective reaction/physiological state—as a lens through which to view the research findings (Bandura, 1986; Morrison & Lent, 2018).Bandura argues the most effective way to build self-efficacy is through experiencing mastery of skills personally (1), witnessing demonstrations of competence by similar people (2) and/or being told by someone we trust that we have the ability to achieve our goals (3) (Morrison & Lent, 2018). Finally, Bandura notes that it is harder for a person to feel assured of their ability to succeed when they feel weary and in a low mood (Morrison & Lent, 2018). This is especially true if these emotional and physiological states are perceived to be indicative of incompetence, vulnerability, or inability to achieve a goal. Given its representation of these diverse aspects, this theory can be used to describe the individual development of participants' self-efficacy (Lent, 2016). Indeed, this construct of self-efficacy has been mainstreamed into supervisory research over the years (Lent, Lopez, Brown& Gore, 1996; Lockwood, Mcclure, Sealander& Baker, 2017; Mesrie, Diener& Clark, 2018; Morrison & Lent, 2018; Mullen, Uwamahoro, Blount& Lambie, 2015). The need for personnel who are working in the field of mental health to feel confident in their ability to help patients effectively is crucial to the interpersonal experience and therapeutic alliance (Mesrie et al., 2018; Morrison & Lent, 2018).

In order to apply this model, the research approach was rooted in full-time, on-site online peer supervision to allow for the managing, training, mentoring and monitoring of LMHWs, in order to build relationships and foster trust between community-based men-

tal health services and the communities in which they exist. The primary research question relates to the supervision experiences of LMHWs as understood through Banadura's analyitical framework. It is anticipated that insights into the mechanisms might also help in developing future training modules for LMHWs. The integration of self-efficacy within the understanding of the impact of peer supervision on performance outcomes is set out in Figure 2. It demonstrates the interest of this research in both the links between peer supervision and aspects of self-efficacy, and the particular types of performance outcomes that may be strengthened through peer supervision.

*Figure 2. Theoretical framework*



## 3. Methods

*Research setting*

The current study was carried in the context of Mental Health Action Trust (MHAT), a non-government organization (NGO) based in Kozhikode, in the Indian state of Kerala. MHAT provides free mental health services to economically disadvantaged people in several districts of Kerala. For 13 years, comprehensive multidisciplinary care has been provided via local partnership with the health system and LMHWs. The LMHWs undertake the bulk of the community-based work and are central in the MHAT's approach. Their roles range from screening and regular domiciliary monitoring of patients to providing group and individual psychosocial interventions, rehabilitation, and family-focused interventions. The study was conducted from August 2020 to April 2021 on peer supervision of LMHWs in task-shared, recovery-oriented community mental health setting in rural Kerala.

*Supervisory process*

Peer supervisors are trained LMHWs who have undertaken three years of experiential training on supervision with a senior clinical psychologist with 30 years' experience in clinical supervision, and have completed an eight-week classroom training program and six years 'supervised field work experience in community-based psychosocial interventions for severe mental illness via MHAT from 2013 to 2019. Supervisees are the LMHWswith less than fouryears' experience and who have not undergone supervised field work experience with MHAT. Peer-supervision by trained LMHWs was offered as one-to-one individual sessions over the course of 12 months (August 2020 to April 2021). Supervisory discussions aiming to improve quality and provide support focused on a) providing an opportunity for the experience of mastery; b) providing information and knowledge through modeling and experience sharing; c) providing feedback; d) encouraging through persuasions; and e) providing emotional support. The supervisors maintained written supervision records, and supervisees were encouraged to keep their own records.

The sessions were structured to provide an opportunity to observe supervisors' activities, share their experiences, and provide constructive feedback and guidance in a supportive environment. Peer supervisors were expected to meet the people they were supervising every week for at least an hour. The peer supervisors met in person in community clinics once every two weeks, along with a weekly phone meeting. The observation took place in cases where supervisees felt stuck. The supervisory process was integrated within the working/learning environment on an ongoing basis as naturally as possible in relation to usual tasks and duties.

A facilitated, supervisor-led model was used, which affords supervisees the opportunity to share their experiences with their senior colleagues and receive feedback. One-to-one peer supervision in MHAT was provided for 12 LMHW staff members by two peer supervisors. Each supervisor met with six supervisees on a one-to-one basis. Both peer supervisors have more than eightyears' experience in the field of Lay Mental Health Work and in task-shared, recovery-oriented community mental health services. Supervision sessions took place in private and quiet work-based locations or by phone.

*Operationalization of theoretical framework*

In order to link the theoretical understandings of self-efficacy with the concrete actions of supervision and the measurable outcomes related to performance outcomes in practical terms, this study developed an overview that connects the planned supervisory activities to potential effects on self-efficacy and performance.

*Table 1. Operationalization of theoretical framework*

| **HOW (process)** | | | **WHICH (impact)** |
|---|---|---|---|
| **Bandura's sources of self-efficacy** | **Planned mode of induction through peer mentorship** | **Hypothesized effects on self-efficacy** | **Performance outcomes** |
| 1.Mastery experiences | -Feedback on individual performance outcomes.<br>-Positive feedback resulting in mastery experiences. | -Improved confidence through evidence of successes.<br>-Improved skills through learning from mistakes. | Quality of Care<br>Teamwork<br>Self-care<br>Administrative tasks<br>Emotional maturity |
| 2.Vicarious experiences | -Providing information and knowledge through modeling and experience sharing.<br>-Observing peer supervisors putting in efforts and succeeding in their activities. | -Lessons from others' experience.<br>-Emotional development ('If they can do it, I can do it as well').<br>-Stronger sense of commitment to their activities. | |

| | | | |
|---|---|---|---|
| 3.Verbal persuasion | -Advice and encouragement from peer supervisor. | -Pushed to action and able to achieve further successes.-<br>-Experience of overcoming challenges. | |
| 4.Psycho-physiological response | -Providing emotional support by peer supervisor.<br>-Reflection on emotional states in front of peer supervisor. | -Quicker recovery from setbacks and disappointment.<br>-Lessons on stress management and dealing with challenges. | |

*Participants*

Participants were recruited using purposive sampling. Prior to the beginning of supervision, participants were informed verbally and LMHWs were invited to participate in the study; they were also given two reminders about the interview. Each participant received a minimum of 12 hour-long supervisory sessions over a six-month period. Participants were assured that their participation was voluntary and that they could withdraw from the study with no negative effects on their employment. Peer supervision was offered to 12 LMHWs who consented.

*Data collection*

All participants completed a brief socio-demographic questionnaire before the interviews and qualitative data was gathered through semi-structured, in-depth interviews with each participant. The interviews conducted aimed to explore the participating LMHWs' perceptions of the peer supervisory relationship in acquiring skills. Interviews were conducted between January and April 2021 and participants were also offered the option of telephone interviews to accommodate busy work schedules, geographical location, and pandemic-related social-distancing. All interviews were audio-recorded and conducted by experienced researchers who were not known to the participants. Data was handled and stored according to the Mental Health Action Trust's Data Protection Policy, ensuring confidentiality.

*Data analysis*

Interviews were transcribed verbatim, omitting personal identifiers, and analyzed using deductive content analysis (Elo&Kyngäs, 2008). Data was coded according to predominant predetermined categories based on Bandura's framework. An analysis matrix of five columns was created; the columns included the specific query, the main themes, sub-themes, the code, and participant excerpts. Data from every participant was coded and cross-checked for accuracy following which the major themes from each interview question were compiled and analyzed qualitatively. The primary focus of the interviews related to how the peer supervision went, how the supervisees perceived it and what effect it had, with emphasis on self-efficacy. Two main themes emerged, namely performance support and emotional support. Sub-themes were the quality-of-care aspect, means of peer supervision and outcomes of peer supervision.

*Ethical considerations and conflict of interest*

Ethical approval for the study was granted by the Institute Clinical Research Ethics Committee of the Mental Health Action Trust, Calicut. Informed consent was obtained from the participants through an information leaflet. No conflict of interest is present.

## 4. Results

Participant characteristics are explained in the first part of this section. The findings consist of an overview of the experience of peer supervision categorized under sub-headings related to outcomes. After a brief discussion of participants' characteristics, the results are structured in two main sections: performance outcomes with five sub-sections, as indicated in Figure 3; and emotional support. The way participants experienced support and attained self-efficacy were analyzed and categorized according to Bandura's framework as: performance accomplishment, vicarious learning, verbal persuasion and emotional states.

*Participant characteristics*

All participants were working with MHAT. Most participants were women aged between 36 to 45 years, had completed secondary school (12 years of formal education, including kindergarten), and had up to six years' experience in the field (see Table 2).

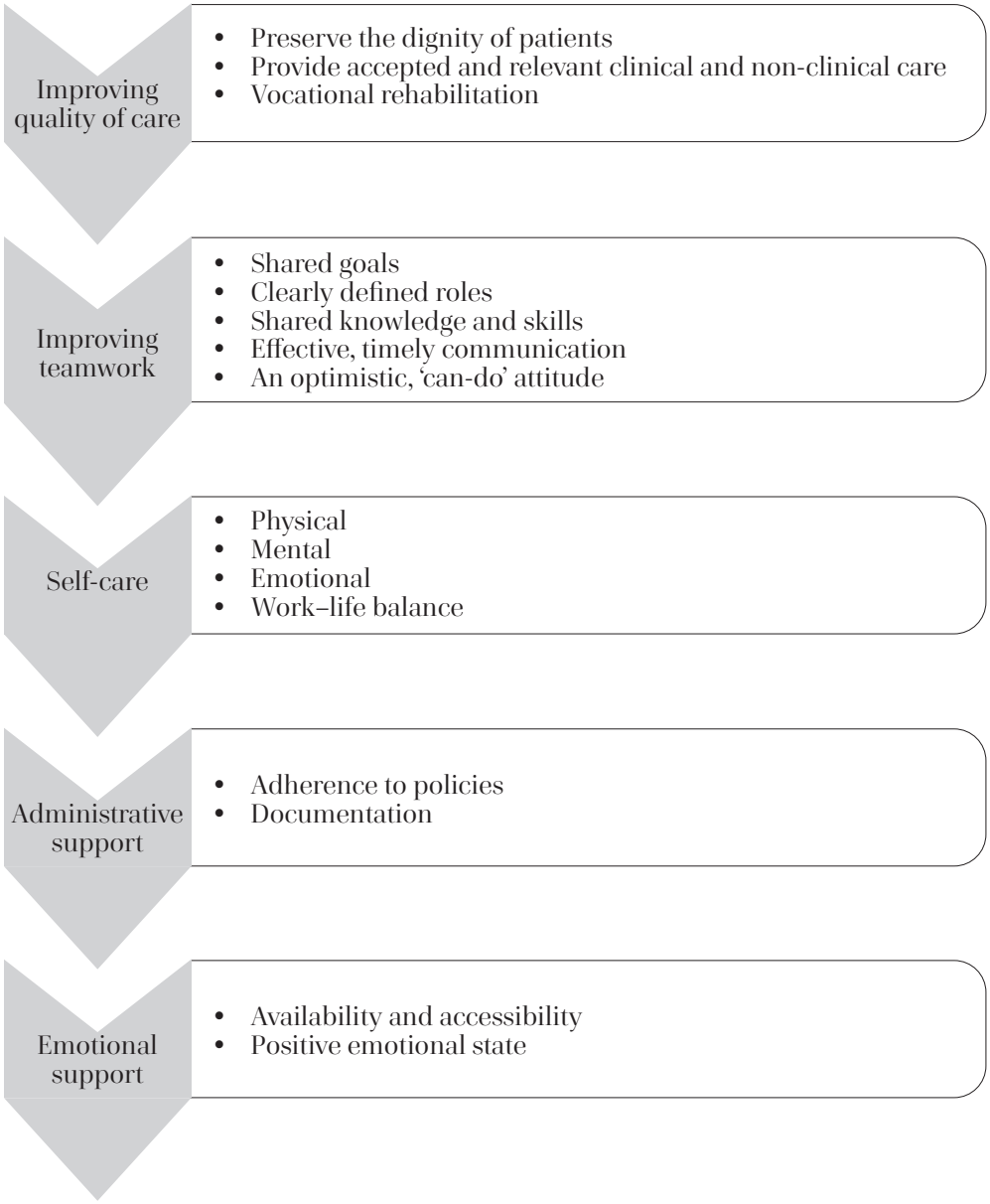
*Table 2. Participant characteristics*

| Supervisees | | | Peer Supervisors |
|---|---|---|---|
| | | Number of participants (N=12) | Number of participants (N=2) |
| Gender | Men | 5 | 1 |
| | Women | 7 | 1 |
| Age (in years) | 25–35 | 1 | |
| | 36–45 | 8 | 1 |
| | 46-55 | 3 | 1 |
| No of years of formal education | 10 | 8 | 1 |
| | 12 | 2 | 1 |
| | 15 | 2 | |
| Experience in the field (years) | 2–4 | 5 | |
| | 4–6 | 6 | |
| | 6–8 | 1 | 2 |

**Performance outcomes**

The first set of interview questions were directed at understanding how the peer supervision helped the supervisees in improving performance and developing a belief in their capacity to apply the necessary skills to achieve specific performance attainments as LMHWs. Under performance support, several sub-sections were identified (see Figure 3).Performance support describes supervisory behaviors which actively promote good practice on the part of the LMHW staff. Improved quality of care, teamwork, self-care, adherence to disciplines and policies, and innovations in work were considered as the performance accomplishments among LMHWs.

*Figure 3. Overall performance outcome*



## 1. Improving the quality of care

In mental health care, quality is a measure of whether services increase the likelihood of intended mental health outcomes and are consistent with current evidence-based practice. In our findings, the quality of care provided by LMHWs, as demonstrated by the supervisors related to preserving dignity; providing acceptable clinical and non-clinical care and supporting agency through vocational rehabilitation. Aspects pertaining to the quality of care arising from the data are presented in Table 3 and discussed in the following paragraphs.

*Table 3. Means of supervision and outcome in quality of care*

| Quality of Care | Means of Supervision | Qualities/ learning outcomes |
|---|---|---|
| Preserving patients' dignity | Corrective feedback, observation of the supervisor and verbal persuasion. | ✓ *Respecting patients' time*<br>✓ *Keeping privacy and confidentiality*<br>✓ *Treating patients and caregivers with dignity as valued members* |
| Provide accepted and relevant clinical and non-clinical care | Providing opportunity to observe how supervisor persuaded seeking help from other resources and sharing of their experiences. | ✓ *Ensuring social or family support*<br>✓ *Planning and organizing home visits in a community clinic*<br>✓ *Understanding receptiveness of the patient and family*<br>✓ *Accurate evaluation of emotional expressions and appropriate interpretation of the meaning of expressions*<br>✓ *Lack of adherence for follow-up*<br>✓ *Group facilitation*<br>✓ *Job-related issues*<br>✓ *Financial issues or other logistical issues*<br>✓ *Adherence to physical health treatment* |

| | | |
|---|---|---|
| Vocational rehabilitation | Providing opportunity to observe supervisor, support in seeking help from other resources and sharing of peer supervisors' experiences. | ✓ *Assessing the patient's needs*<br>✓ *Developing plans to meet identified needs*<br>✓ *Providing or arranging for the services the patient needs* |

*a. Preserving patients' dignity*

Dignity is concerned with how people feel, think and behave in relation to the worth or value of themselves and others. The recognition that to treat someone with dignity is to treat them as having worth, in a way that is respectful of them as valued individuals, was an important part of the LMHW classroom training curriculum. While MHAT considers that preserving the dignity of people with mental disorders is a fundamental component of good quality care, participants acknowledged that in practice, most of them are less sensitive to this, to the extent that the peer supervisor needed to remind them. Study participants shared their experiences, where their peer supervisor was involved directly in their on-site supervision. The three means of support experienced by LMHWs as well as the specific points for maintaining dignity that they learned were shown in the interviews are demonstrated by the quotes discussed below. For instance, participant 7 discussed the effectiveness of receiving direct (corrective) feedback when she left a patient waiting too long.

> *"My patient was waiting for 30 minutes for me in community clinic. That was noticed by my peer supervisor in onsite supervision. She gave feedback on this by reminding about the importance of respecting their time."* (Participant 7)

Another means of learning was highlighted by participant 6 in the form of vicarious learning, noting that the peer supervisor intervened by critiquing how they called patients into the consulting room without getting up from their desk and demonstrating how she herself went out to call patients in and greet them, explaining that this showed more respect. These actions correspond to the verbal persuasion and vicarious learning aspects of the SCP model for self-efficacy. Participants also linked this learning and improvement with better outcomes, for instance in the therapeutic relationship.

*"For the case of my client I apologized for making him wait after my peer supervisor's feedback. The relationship after that was becoming warmer."* (Participant 7)

Furthermore, dignity relating to treating patients and caregivers with value was highlighted by supervisors through correction that could be linked to the aspect of self-efficacy arising from the SCT framework, in the form of vicarious learning by observing an interaction between their peer supervisor and another community volunteer:

*"I noticed the way my peer supervisor corrected a community volunteer in the way a volunteer scolded [the] client for not having medication on time.... she corrected [the] volunteer by explaining that being seen as the person one is strengthens the experiences of value and a dignified life."* (Participant 8)

Finally, privacy as an aspect of dignity was highlighted in participants' experiences of supervision, where participant 8 noted that when encountering the supervisor outside the environment, they advised the participant not to discuss patients, citing concerns about confidentiality.

*b. Providing accepted and relevant clinical and non-clinical care*

Providing accepted and relevant clinical and non-clinical care aimed at reducing the impact of the disorder and improving the quality of life of people with mental disorders is another important component of quality of care. These aspects of care include continuity of visits; correctly understanding patients' needs and desires; helping schedule and organize activities; involving the family in care and rehabilitation; and the significance of timely intervention to prevent relapse. Participants reported a significant improvement in the continuity of visits due to the timely help from the peer supervisor relating to delays or organizational problems. For instance, in cases where assessment and intervention were not resulting in progress in treatment, such that the participant was unsure of an appropriate course of action:

*"It was very difficult to move the sessions forward in a client who was bed-ridden for years without social or family support…discussed with clinicians, community volunteers and we couldn't find any change at all. I was stuck...I realized that I am more confident in discussing with peer supervisor. I contacted my peer supervisor and I got opportunity to observe the session she does and try to replicate it."* (Participant 6)

In this case it can be seen that observation, closely linked to the SCT point of vicarious learning, helped the participant to achieve self-efficacy. Supervisors also helped partic-

ipants manage their own resources, enabling them to connect to other means of expertise, as in the following example:

> *"In a psycho-education to the client and family, I faced difficulty [...]. When I discussed this issue with [the] peer supervisor, she directed me to [the] concerned mental health professional. I sat with [the] peer supervisor and the mental health professional. They introduced the simple methods to understand the internal status of the client and family was very helpful in understanding clients, since these helped the clients to notice what was going on for them and to make sense of it."* (Participant 10)

Supervisors were also able to foster new analytical skills among the participants in response to situations arising in treatment. For example, one participant illustrated how a change in analysis changed the patient's response from the very first assessment by, for instance, accurately evaluating and interpreting emotional expressions. This trend of improved quality of care through supervision is further clearly visible in learning related to fostering the provision of social support, strengthening adherence to treatment, and timely intervention to prevent relapse. With regard to social support, for instance, while participants recognized the importance of involving the family in treatment, they often struggled initially with including them and were better able to do so after discussion with and observation of the peer supervisor.

Concerning treatment adherence, one participant in particular discovered how much could be gained from the knowledge and experience of their peer supervisor. Participant 6 gave the example of issues in scheduling activities for a patient with long-term depression, and was often unable to complete the tasks set. They sought advice from their supervisor who suggested setting more specific, measurable and achievable goals, which resulted in improved outcomes. Similar outcomes were experienced by participants 7, 10 and 11, each of whom learned about factors related to adherence and follow-up from their supervisor. Finally, participants described the benefits of peer supervision for identifying warning symptoms of relapse, which they considered to be a major aspect of providing quality care.

These encouraging findings notwithstanding, there were also some negative outcomes relating to communication with peer supervisors in this area. For instance, participants identified disagreement on conceptualization, diagnosis, treatment and theoretical orientation. This sometimes resulted in conflict for the participants in how to approach particular topics or issues concerning their patients. Furthermore, some participants encountered issues related to the time spent on supervising and indeed the quality of the supervision relating to outdated knowledge.

*"My supervisor does not spend supervision time supervising but instead chatting about various unrelated topics."* (Participant 2)

*"She is not up with current theory and practice; very few clinical skills, etc. I only see her because I have to."* (Participant 3)

These diverse responses occurred in the context of the participants' characteristics that demonstrate the varied levels of experience, and therefore their different needs.

*c. Vocational rehabilitation*

A key function of LMHWs is supporting the vocational rehabilitation of people with mental disorders, in order to empower them to cope by themselves. As such, it is also a relevant sub-section of supervisory support to consider three aspects of vocational support: a) assessing patients' needs; b) planning on the basis of needs; and c) service provision and follow-up. In response to these elements, similar forms of support were identified as in previous sections including: observing the supervisor, identifying alternative sources of information, and sharing peer experiences. With regard to assessing patients' needs, one participant noted the way their supervisor conducted initial questioning, in order to help the patient, identify a potential starting point:

*"[The] peer supervisor helped me in assessment stage by showing an assessment in this area and showed that how it helped my client to determine himself by asking [...] what is the client's present living condition? Is he dependent on someone else to provide basic services such as cooking and cleaning? Can he manage financial activities, such as handling an ATM card, opening a bank account, or living within a budget? [...] This helped client to decide where to start."* (Participant 10)

Study participants also explained how they received help from the supervisor in the second stage to develop a plan with a patient and what factors to consider. For example, the supervisors indicated participants should consider the results of the assessments, detailed understanding of existing training resources in the patient's community, understanding of employment opportunities in the local area, the feasibility of alternative goals when full-time employment is not an option, and how to empower the patient to make the necessary decisions. Finally, in the implementation phase supervisors helped increase knowledge on numerous forms of vocational assistance including supported employment, supported education, pre-vocational training and on-the-job training. The supervisors' assistance in navigating these options is discussed in the following quotes:

*"Peer supervisor helps me to understand the vocational needs and how to address it with utilizing community as an asset. One of my clients[s] faced difficulty in getting [a] job. Then [the] peer supervisor showed me the ways how we can implement supported employment. Now that client is working in [a] nursery of [indoor] plants."* (Participant 2)

*"One of my clients was interested in finishing tenth standard. [The supervisor] showed me how to do the supported education with the help of community clinic. My client took this as a new opportunity in her life and she said I never expected this."* (Participant 5)

The peer supervisors helped the participants to connect with existing networks of employers and community volunteers, which gave them access to knowledge and resources. Participants explained how the peer supervisor guided them to access the community volunteers' networks with employers and showed them how to tap into the knowledge of employment professionals. LMHWs and community volunteers can learn which employers in the area train their new employees and on what terms, and then make helpful suggestions to their patients. For instance, as in the case of participant 10, the supervisor introduced knowledge on the way that practicing skills before entering explicit working conditions can be helpful for patients.

*Table 4. Areas and means of supervision and outcomes in improving teamwork*

| Areas | Means of Supervision | Qualities/ Learning outcomes |
|---|---|---|
| Shared goals | Verbal persuasion. | ✓ *To deal effectively with colleagues who are working with them*<br>*LMHW staff is having interpersonal issues with colleagues* |
| Clearly defined roles | Verbal persuasion and sharing similar experiences which peer supervisor had gone through. | ✓ *Role confusion*<br>✓ *procedures and process of decision making and implementation*<br>✓ *Lack of experience in organizational disciplines and procedures* |

| | | |
|---|---|---|
| Effective, timely communication | Verbal persuasion and sharing similar experiences which peer supervisor had gone through. | ✓ *Communication issues can occur within the team*<br>*Communication with the patient* |
| An optimistic, can-do attitude | Verbal persuasion to see importance in self; to reframe unhelpful beliefs; and to generate possibilities; and sharing similar experiences which peer supervisor had gone through. | ✓ *Complains about colleague's negative attitude*<br>✓ *Always need reassurance*<br>*Community clinic volunteers' negative approach towards issues* |

**Improving teamwork**

Working as part of a clinical team is, as mentioned above, a complex issue given both the importance of healthy relationships between actors to the quality of care and the specific dynamics of authority and trust this entails. As such, it is not surprising that teamwork emerged as a theme of peer supervision, where the supervisory relationship helped to understand key factors for success including: shared goals; clearly defined roles; shared knowledge and skills; effective and timely communication; and an optimistic, can-do attitude. Each of these is discussed with examples in the following sub-sections.

*a. Shared goals*

Setting treatment goals in the clinical team and supporting staff that represent patients and families' priorities, as well as the clear articulation and understanding of these goals within the team, is an essential part of patient-centered, quality care. Indeed, where the provision of quality care is itself the primary goal of clinical staff and LMHWs, there appears to be a knowledge gap arising from the classroom LMHW training programs about how to apply these goals in practice. Community clinics exist within heterogeneous and unique circumstances, and it is at times difficult to respond to a particular context without diverging from shared goals. One aspect of this complexity identified by the participants, in whom supervisors supported them, was the tendency to try to please other colleagues, or other interpersonal issues with colleagues. This is clearly demonstrated in the following quotes:

> "*When I discussed an issue between my colleague and me, my peer supervisor reminded me that our ultimate goal [,] is patient care. This helped me to ignore all other interpersonal or power issues in the way of our goal…patient care.*" (Participant 5)

*"In the initial period, I was focusing more impressing my colleagues through my outcome of sessions with clients. Unspoken, even unconscious goal was probably to impress the team. My peer supervisor noticed it and reminded me about the ultimate goal – that is patient care."* (Participant 6)

These examples indicate the importance of verbal persuasion in supervision in relation to this outcome.

*b. Clearly defined roles*

An essential part of effective team work is a clear division of roles and responsibilities to prevent overlap or inefficiency. Participants described how they perceived the benefit of peer supervision in clarifying and defining their roles in each community and multidisciplinary team. In particular, given their embeddedness in the local context, it is at times difficult for LMHWs to distinguish their roles in the community clinic. Furthermore, providing the best care for patients also involves effective communication with different individuals and authorities, for which the division of responsibilities is also relevant. As such, the discussion and experience-sharing related to peer supervision proved useful for navigating uncertainty with respect to role divisions.

*"The procedures and process of decision making and implementation of [the] plan in each community clinic and with each mental health professionals are different. It is always anxiety provoking… Any smaller mistakes can cause larger impacts…so I usually share issue with my peer supervisor and get his opinions and experiences on similar and that gives me clarity in my role and others role…"* (Participant 10)

Interestingly, this lack of clarity on roles extends to an overall confusion about participants' identity as LMHWs. This was largely related to a perceived lack of qualifications or authority:

*"I saw that [the] community clinic team were having issue in considering us as an LMHW staff of MHAT, and they have [an] issue in providing tasks to us. My peer supervisor is always help[ing] me to establish my identity."* (Participant 12)

*"I was a housewife and community volunteer. I had no experience of previous jobs. I felt I needed to become skilled and establish the new identity as LMHW staff of MHAT like my peer supervisor."* (Participant 5)

This theme emerged for 10 of the 12 participants, indicating its significance. Though this is most clearly an example of verbal persuasion and vicarious learning, it also shows the first clear example of a psycho-physiological response, which is discussed more under the heading of emotional support.

*c. Effective, timely communication*

Communication within a community clinic team is important in two senses: first, effective communication when treatment begins is a significant prerequisite for quality patient care; second, timely and effective communication of general feedback on individual performance has implications for the improvement of care. Minor issues in these communication processes can lead to problems at a systemic level. While the system-wide issues in teamwork might then be addressed through some form of intervention, the root cause of communication problems may be neglected. For this reason, the supervisors' input based on their own experiences, combining verbal persuasion and vicarious learning, proved an important contribution for participants:

> *"Any time any issue related to communication [...] can happen within the team...so we need to be careful...if there is any doubt, we can contact our peer supervisor...this is really a help."* (Participant 6)

> *"If the communication with the client while intake is not [appropriate] there are chances of issues between [the] client and [the] treatment team. [The] peer supervisor reminds me [of] the importance of that communication all the time."* (Participant 9)

*d. An optimistic, can-do attitude*

As an aspect of team communication, the attitude of team members is also significant. Interactions with supervisors highlighted the multiple levels on which attitude have an impact including: individual confidence, interaction with patients, communication with colleagues, and interaction with the community. In each of these areas, supervisors advised a strength-based approach by tackling self-confidence, reframing unhelpful beliefs, showing diverse possibilities and sharing their own experiences.

> *"My supervisor always reassures me that I can do [it]."* (Participant 11)

> *"[The] peer supervisor teaches me to see the strengths of clients and families more than weaknesses and disabilities."* (Participant 12)

Again, there is overlap with emotional support in the ways in which verbal persuasion is combined with a psycho-physiological response to strengthen the participants. In this aspect, however, it is worth noting that responses to supervisors were not uniformly positive as personality conflicts and communication issues also led to perceiving them as critical, judgmental or unsupportive, as one participant notes:

> *"[My supervisor] is generally critical and not conscious of how her way of delivering peer supervision impacts my sessions and confidence."* (Participant 2)

**Improving self-care**

The most basic prerequisite for healthcare in any society is the general wellbeing of health workers themselves. In much the same way as, general citizens can improve their health through active self-care and prioritizing wellbeing, LMHWs need to prioritize their own health. If self-care is not addressed, they can suffer physical and mental health issues, such as anxiety, depression, hypertension and diabetes, among others. Participants themselves noted the problem with such outcomes, where they were concerned that should they need to take long-term leave, it could lead to problems in providing care to patients.

*Table 5. Areas and means of supervision and outcomes in improving self care*

| Self Care | Means of Supervision | Qualities/Learning outcomes |
|---|---|---|
| Self-care (LMHWs' health) | Verbal persuasion<br>Experience sharing | ✓ Physical health<br>✓ Preventing burnout<br>✓ Work–life balance |

Peer supervisors were in a unique position to remind participants to care for themselves properly. This involved physical aspects of care like diet, exercise and monitoring of physical illness, mental aspects of self-care such as stress management, and emotional self-care relating to the general sense of wellbeing.

> *"My peer supervisor recommended [I see] a doctor when I was sick and taking the time to rest. He complimented for caring my physical health by eating extra fruit and veggies to fuel my body, as well as staying hydrated."* (Participant 7)

> *"My peer supervisor was encouraging my self-care that reduced unnecessary burnout by taking planned leave."* (Participant 5)

*"As working experience is new to me, I felt difficulty in drawing [the] line. Sometimes I lost self-care. My peer supervisor helped me through sharing her experience. It was really helpful."* (Participant 11)

**Administrative support**

In the LMHW work, administrative supervision includes monitoring both adherence to organizational policy and documentation procedures.

*Table 6. Areas and means of supervision and outcomes in administrative support*

| Administrative support | Means of Supervision | Qualities/ Learning outcomes |
|---|---|---|
| **Adherence to organizational policies** | Monitoring and corrective feedback | ✓ Unplanned leave<br>✓ Policies |
| **Documentation** | Monitoring and corrective feedback | ✓ Language/spelling concerns |

*a. Improving adherence to disciplines and policies*

Policy adherence is important in the functioning in most organizations, for instance in managing leave, travel allowances and submission of reports. Lack of adherence poses serious risks to the functioning of clinics, and so was covered by the peer supervisors. In the initial phases, participants noted that this adherence was quite difficult, especially for those with no previous working experience.

*"It was difficult for me to follow the disciplines and policies. My peer supervisor taught me in supportive way and with corrective feedback."* (Participant 12)

*b. documentation*

Proper documentation and record keeping are very important in a mental health setting. Documentation was another area where participants reported lacking confidence. They expressed an intense fear of negative evaluation in writing, which led to procrastination. This was addressed by peer supervisors through carefully managed corrective feedback.

*"I was avoiding writing in the file.... very anxious about language, spelling etc. My peer supervisor taught me simple steps to overcome my fear."* (Participant 4)

## 5. Emotional support

*Table 7. Areas and means of supervision and outcomes in emotional support*

| Emotional support | Means of supervision | Qualities/ Learning outcomes |
|---|---|---|
| **Availability and accessibility** | Providing a secure space to discuss emotions | ✓ Addressing need for support |
| **Emotional support** | Creating a positive environment | ✓ Situational factors |

As indicated above, some aspects of emotional support were also integrated within the approach to tackling key problems related to self-care, responding to emergencies and dealing with inter-personal challenges, but emotional support was singled out as a separate outcome given the sheer significance it had in the interviews. Participants noted two forms of emotional support they gained from supervision: the creation of an accessible space to seek emotional support, and creating a motivating, positive environment.

### *a. Availability and accessibility*

In relation to managing negative emotions that hinder work and learning processes, it made a difference to participants that there was someone on whom they could rely. From their responses it can be gleaned that the availability of a peer supervisor as well as the manner in which the supervisor addressed them created a space in which they were well able to cope with emotions.

*"She gives me secure space for discussion when I need support."* (Particpant6)

*"My peer supervisor is warm and nurturing."* (Participant 12)

*'My peer supervisor is always available for me... that thought itself is relaxing for me..." (Participant* 10)

*b. Negative emotional state affecting learning*

Given that supervision also involves a certain degree of criticism, it is quite important that there is still drive or motivation to engage in the supervisory process. In general, participants expressed the view that the supervisors were able to create a positive space to engage with them. However, situational factors also play a significant role in motivation, for instance regarding the ways in which the supervisors themselves are treated within the organization. This was noted by one participant:

> *"I felt bad in my peer supervisor's approach in that community clinic's issue. She received negative outcome but didn't realize that point…I feel less motivated in my sessions in my sessions with her."* (Participant 2)

**Discussion**

This discussion seeks to understand the application of peer supervision in one clinic in terms of its impact on self-efficacy and its consequences for performance outcomes, in order to generate insights for future application by identifying and evaluating challenges and their implications for future supervision.

This research was structured around the evaluation of a yearlong peer supervision program for LMHWs conducted in community clinics in Kerala. It successfully achieved the combined aims of evaluating the success of peer support in increasing self-efficacy and thus improving performance outcomes; identifying key challenges experienced by LMHWs; and will finally consider the implications of this data for future training and supervision. The findings of the qualitative data analysis on LMHWs' perception of their peer supervision produced findings supporting the conclusion that peer supervision significantly enhanced self-efficacy, through an intricate and complex combination of supervisory means. This finding is consistent with that of Henry et al. (2016) and Hossain et al. (2021) who studied the effect of peer supervision of community health workers (CHWs) in improving quality assurance, communication and information, and creating a supportive environment. Furthermore, this research contributes to the literature on supervising LMHWs by identifying key challenges experienced by participants, which might be used to improve both classroom-based training and future supervision. For instance, while training covers such aspects as providing dignity, involving the patient's family in treatment and other elements of performance discussed in supervision, the urgency of these issues had not been truly felt by participants until they were already working.

Concerning the fostering of self-efficacy through peer supervision, the central factors identified by Bandura (2008) were found to be consistent with our data on supervisory activity. The most directly visible form of this was the vicarious learning used by peer supervisors, where observing how they solved problems themselves served as a significant learning experience for participants—for instance, by showing a participant how to focus the assessment of socio-occupational functioning with the goal of achieving self-reliance. This resulted in the anticipated emotional development and sense of commitment (see Table 1). Similarly, supervisors used individual feedback and persuasion to guide their supervisees towards their own experiences of success. Where Bandura (2017) further notes the significance of positive feedback as supporting self-efficacy, this research built on this by showing the importance of building of a relationship of trust and fostering of a positive attitude. Furthermore, the role of self-care, physical and emotional wellbeing was emphasized just as strongly as in Bandura's work. Overall, the findings showed that participant performance improved significantly in a manner corroborated in literature on managerial strategies by Rogelberg (2017), showing supervision can improve the employees' belief in their capacities. Similar successful strategies have been found in relation to counselors and nurses in numerous studies (TK & Chandran, 2017; Bandura, 2020; Enlow et al., 2019;Morrison& Lent, 2018; ÖztekeKozan, 2020; Vandament et al., 2021).

In terms of the challenges experienced by participants, these fell into four central categories: performance, teamwork, administrative and emotional support. Most of the research findings related to the first category, where each of the aspects identified concerned the significance of supervisory support in mediating the shift from theory or training to practice. For instance, it made a difference that supervisors emphasized the importance of dignity in high quality care based on their practical experience, which is corroborated by a large body of literature, as this built on what had already been learnt in training (Tomlinson, 2015; Dronet, 2016; Kilbourne et al., 2018; Johnson et al., 2019). Of the other aspects of performance, a generalization can be made that also forms the most interesting finding of this research: a large element of the support that the supervisors provided was passing on connectivity and understanding between the new LMHWs and the broader community. Whether in generating better social support for patients or discussing means of financial support and employment, supervisors consistently acted as mediators for creating connection. This finding presents an interesting answer to the research sub-question considering the position of LMHWs in their communities. Indeed, collaboration with all concerned parties in a person's treatment is essential, as is shared accountability (Uwisanze et al., 2021). The further evaluation of this finding is beyond the scope of this study, though in general, participants noted how collaboration and the transfer of skills from their supervisors made it easier to build skills and enhance their performance.

Performance did not, however, present the most significant challenge according to participants, who were more concerned by issues relating to teamwork and communication. Challenges related to setting boundaries, understanding distinct roles, and communicating in a timely and effective manner were noted across the board. Setting boundaries within multidisciplinary teams has previously been established as a problem, for instance by Laurenzi et al. (2020). Interpersonal communication difficulties within teams, especially related to skill-sets and power dynamics, have also been identified in task-sharing situations (Ashengo et al., 2017). Concerning emotional support, which was identified in the literature as a significant element of mentorship and supervision, this study identified numerous areas of intervention. Managing stress, creating a work–life balance, and navigating difficulties and emergencies posed challenges for which participants turned to their supervisors. These results align with recent studies indicating that the relationship between the peer supervisors and the people they supervise is a key factor of effective supervision (Rothwell, C. et al., 2019). This finding may be explained by the fact that the peer supervision included providing encouragement, rather than criticism or blame, when LMHWs were struggling. The importance of a positive and motivating form of supervision is also supported by recent findings (Bandura, 2020). Finally, administrative activities are those supervisory tasks which are required to keep a program running smoothly. The challenges observed in this area are mainly adherence to policies and absenteeism-related issues. These results support evidence from previous studies conducted among CHWs who were working in different areas of the health sector (St. John et al., 2021; O'Donovan et al., 2018; Ballard& Montgomery, 2017; Ballard et al., 2021). The administrative activities include knowing and effectively applying law and policy and ensuring compliance with deadlines and protocols regarding documentation. These activities facilitate efficient practice and serve to protect the organization, the staff and patients from costly mistakes.

On the basis of the data presented in this paper, some suggestions may be made for future work to address the needs and experiences of new LMHWs. First, the numerous instances in which information covered in training arose again within supervision indicates the need to address the gap between theory and practice in community health work. This provides a key argument for the future application of peer supervision more widely, given the need for experiential knowledge to address this. Second, issues relating to emotional support and self-care may indicate a potential gap in training, where the foundations for the necessary socio-emotional skill-set in such settings could be laid earlier on. Similarly, challenges with administration might be remedied by earlier attention to the importance of such tasks for smooth functioning. The question of LMHWs recognizing their roles and boundaries, as well as the significant connecting role of supervisors in the

community can be seen as further evidence of the importance of experiential support through peer supervision.

The research data also clearly shows how intricate and varied the supervisor's strategies were in order to address all these different challenges LMHWs experience in the field. The intuition they showed in this research on effective supervision strategies were in line with other studies that identify local knowledge, collaboration and sensitivity to emotional needs as key factors (Avorti et al., 2018). This can be contrasted to the way in which financial, beaurocratic and political constraints can cause classical supervisors to lack attentiveness to staff needs (Roberton et al., 2015).It is further notable that in mental health services that are community oriented and focused on wellbeing, rather than reducing mental illness, complexity quickly seeps in. The variety of skills, roles and support LMHWs are required to perform in such a context, exacerbated also by the low-resource setting, and issues of stigma and discrimination, supervision becomes even more cumbersome and abstract. The data in this study show that supervisors were quite well positioned to guide and mentor their supervisees, reflecting a great degree of reflexivity, flexibility and responsiveness. As such future research might be more oriented towards understanding the backgrounds and experiences of supervisors, to discover how supervisors might be trained or supported in their work, especially as studies indicate that quality of supervision is of more significance than frequency. However, this study clearly shows the importance of flexibility and a level of presence (responding to the needs at hand that are also embedded in the community context itself) in such complex settings as mental health care provision in low-income settings (e.g., Auschra, 2018).

**Limitations**

It is important to make explicit and discuss the limitations of this study including: (a) the use of purposive sampling; (b) data from a single organization; (c) small sample size; (d) potential response bias; and (e) varying levels of experience with peer supervision among respondents. Purposive sampling is a non-probability sampling technique that reduces the generalizability of the research findings (Crouse &Lowe, 2018; Jager, Putnick&Bornstein, 2017) and increases the likelihood of selection bias (Crouse & Camp; Lowe, 2018). The small sample size could also present a limitation to the generalizability of these research findings to the specific study population (Vasileiou, Barnett, Thorpe, &Young, 2018). Regarding internal validity and sample size, it is not known whether these research findings can account for the full field and variation of the phenomenon under investigation (Vasileiou et al., 2018). In addition to the limitations associated with a small sample size, it is possible that some participants exhibited response bias when answering the interview

questions. For instance, participants might have responded in a way that is perceived as more desirable to the researcher (Villar, 2011). Moreover, other variables relating to the researcher's demographic and interview characteristics could have potentially biased participants' responses. Variables such as the researcher's role in the organization could significantly facilitate bias in participant response (Villar,2011). Finally, a variation in the degree of supervision received across the sample as well as the level of experience of working was suggested as influencing LMHWs 'perspective and time to respond to interview questions. Experience in community clinics might significantly influence LMHWs 'perceptions regarding the extent of the role supervision played in the initial development of clinical skill sets. A suggestion for future research, for instance in the form of realist evaluation, would be to include the perceptions and backgrounds of supervisors themselves, to complement the data of LMHWs.

**Conclusion**

This study explored factors involved in implementing peer supervision in a community clinic in India, and its contribution to the development of LMHWs' self-efficacy. It further catalogued challenges experienced by these LMHWs, and how these were tackled, as well as what the outcomes say about the role of LMHWs in their communities. Based on the manner in which supervision aided in dealing with difficult clients, identification and early resolution of issues arising in the community and issues related to discipline and organizational policy, it can be concluded that it made a valuable contribution to LMHWs' self-efficacy. The research findings highlighted challenges related to communication, teamwork and applying learned behavior in real-life settings, and indicated that some of these issues are successfully tackled through peer supervision. Most interestingly, peer supervisors were also found to provide a necessary connection between new LMHWs and the communities and actors with which they need to collaborate to provide quality care. This study contributed to previous research by indicating the importance of the peer supervisors' years of clinical experience and their skills and connections. This presents an interesting area for future exploration. This study further shows the practical implications involved in the application of peer supervision, demonstrating the usefulness of guidelines on structured supervision including accessibility, adherence to weekly schedules, and clear instructions for the supervisors.

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Chapter 7

# Empowerment of Lay Mental Health Workers and Junior Psychologists through Online Supervision in a Task-shared, Rural Setting in Kerala, India


**ABSTRACT**

Patients with severe mental health issues who live in isolated rural areas are difficult to reach and treat.Providing effective treatment is difficult because mental health problems are complex and require specialized knowledge from a range of professionals. Task-sharing with lay mental health workers (LMHWs) has potential but requires proper training and supervision to be effective. The study sought to understand the functioning of the Empowerment Supervision Group (ESG) in the context of junior psychologists and LMHWs in rural India, and investigate how they experienced it by exploring challenges, lessons and empowerment. Qualitative analysis of interviews with the 22 ESG participants and their supervisors. A total of three discrete phases of supervision were identified where supervisors responded to the changing needs of the group. This began with building trust at a baseline level, tackling issues with competence and autonomy and finally experiencing meaning and impact through self-determination. Empowerment based supervision of LMHWs and junior Psychologists online enables a level of engagement that positions them to engage in community mental health practices with greater independence and confidence. Lay mental health workers are a viable addition to mental health systems in low- and middle-income countries, provided appropriate training and supervision is available. In order to meet individuals' mental health needs in low and middle income countries, innovation and new strategies are important.

## 1. INTRODUCTION

It is well established that the global treatment gap in mental health is most pronounced in low- and middle-income countries (LMICs)due to ashortage of qualified staff (e.g. Van Zyl et al., 2021).Currently, there are only 1.93 trained mental health workers for every 100,000 people in India, compared to 71.7 professionals per 100,000 people in many high-income countries (McGrath et al., 2022).Furthermore, high levels of stigma present a particular issue given that those with a mental disorder are publicly shamed and face isolation and discrimination, which can further exacerbate mental health symptoms (Paul & Dasgupta, 2021).Indeed, growing knowledge on the social determinants of mental health is a significant driver behind the theoretical shift of global mental health research to emphasize the complexity of mental illness and the need for holistic, wellbeing-oriented approaches to treatment (Burger et al., 2020; Cramer et al., 2016; Fried et al; 2017).

Theoretical shifts aiming to grapple with the complex and dynamic nature of mental health care may exacerbate the issue of staffing shortages in LMICs further, as types of expertise required continue to evolve. The most pervasive measure to reduce shortages in LMICs involves the training of Lay Mental Health Workers (LMHWs) for task-sharing purposes (Lehmann et al., 2019). LMHWs are defined as individuals with no previous professional mental health training or background who is employed to help treat and manage common mental health disorders, such that concerns about their ability to tackle mental illness at a systems level have been raised (Patel et al., 2011). Yet it is also significant to note that the use of LMHWs may be particularly advantageous in LMICs such as India because of their ability to address many different types of severe mental illnesses with more contextualised knowledge(Patel et al., 2011).For instance, LMHWs typically come from the communities they serve and therefore have higher acceptability and may contribute to the reduction of stigma (Michelson et al., 2020).Furthermore, studies involving LMHWs in LMICs have shown great potential for LMHWs' effectiveness on mental health outcomes in India in particular (Michelson et al., 2020; Raviola et al., 2019; Rajaraman et al., 2012).

Aiming to address both staff shortages and theoretical developments in the field of mental health, organizations such as the Mental Health Action Trust (MHAT) must take due consideration of how LMHWs might be most effectively involved in mental health service provision. For instance, although the efficacy of LMHWs in low-resource settings through well-designed training programmes has been established, they are also found to be insufficiently supportive when it comes to building confidence and competences required for LMHWs to act independently in the dynamic environment of psychosocial interventions (Jackson et al., 2018a). Research indicates the need for ongoing training, supervision and mentorship in general to encourage continual learning and development (Kemp et al.,

2019).Furthermore, the psychological empowerment of staff more generally has been associated with better outcomes for patients(Ali et al., 2020).It follows that empowerment-based supervision of LMHWs could enable them to provide better interventions that address the complexity of wellbeing-oriented care. However, persistent resource and geographic limitations apply as much to supervision as they do to treatment, such that it is necessary to identify cost-effective means of empowering LMHWs to carry out independent psychosocial interventions. Changes in practice, in part arising from the COVID-19 lockdowns, have resulted in increased consideration of digital practices as tools for supervision and mentorship (Kumar, 2020).

### *1.1 Telemedicine and online practices for mental health*

The World Health Organization (WHO) describes telemedicine asthe use of information and communication technologies (ICTs) to exchange information for diagnosing, treating, preventing, and evaluating disease and injuries, and to further the health of individuals and communities(Khemapech, 2019;Augusterfer et al., 2020). Telemedicine and other digital practices have been a salient topic in global mental health and in India in particular, drawing the attention of the government with aims to provide health education, outreach and services through use of technology (Naslund et al., 2020). Barriers to the use of technologies to enhance services, and in this case supervision, include poor internet access or a low bandwidth; limited familiarity with or openness to online mental health services; scheduling across time zones; and the loss of non-verbal communication that typifies in-person interactions (Woo et al., 2016; Martin et al., 2017; Jackson et al., 2018b; Tarlow et al., 2020; Muke et al., 2020; Kelly &Hassett, 2021).Telemedicine is a salient topic in India as the government itself aims to provide health education, skill enhancement and health outreach services for health professionals through technology.

This article explores the set-up, running and evaluation of an online supervision group for community clinics in India, as well as the challenges and opportunities that emerge. The Mental Health Action Trust (MHAT) developed its tele-psychiatry unit in 2014 for the provision of pharmacological interventions to patients with severe mental illness in rural clinics. The supervision program considered in this article provided an extension of these practices and aimed to provide supervision to both junior psychologists and LMHWs to empower them to meet various functions, especially pharmacological interventions to those with severe mental illnesses incommunity settings. Ongoing training and supervision by experienced clinical Psychologists is essential for the junior psychologists and LMHWs who manage the individual community clinics. The idea that each community

clinic could benefit from the Empowering Supervisory Group (ESG) arose from discussion among junior psychologists and LMHWs.

As there are no studies exploring telemedicine and the empowerment of LMHWs and junior psychologists, this article addresses two research questions:

1. What does online supervision look like in the context of LMHW and junior psychologist supervision in rural India?

2. How do junior psychologists and LMHWs experience online supervision?

    1. What challenges do they experience?

    2. What can be learned from their challenges?

    3. What benefits did they experience, and can these be understood within the framing of empowerment?

### *1.2 Empowerment and clinical supervision*

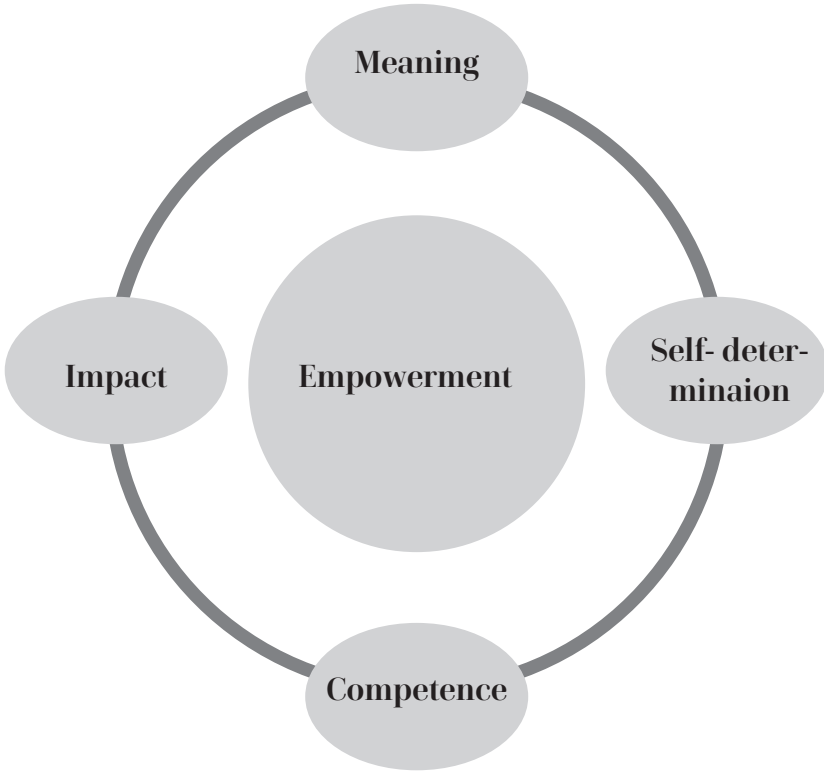
In community mental health, as with other systems of care, political, social, and historical factors have led to particularly complex divisions of service provision by an array of health providers, situated in both acute and non-acute settings (Bourgeault, 2019). More recently, the focus has shifted to the interconnections between mental health, physical health and social wellbeing, resulting in attempts to break down the barriers between silos of services. This stance has been variously termed as 'collaborative', 'multidisciplinary', 'coordinated' and 'integrated' care (Matscheck & Piuva, 2020). In MHAT, groups of care providers make up a multidisciplinary team including mental health professionals, non-professionals and community volunteers; providers of housing, employment services, education and training, and related support services; as well as families and carers. In a sense, general mental health care systemsare being re-conceptualized, shifting away from segmented, linear structures, to a complex system with non-linear pathways and synergistic components (Schriger et al., 2020; Ellis et al., 2017). Operating in this setting requires a different way of orienting, for which this study has selected the empowerment model of clinical supervision.

Clinical supervision in community mental health is a dynamic, fast-paced process full of opportunities and challenges for supervisors and those whom they supervise (hereafter 'participants'). The Empowerment Model of Clinical Supervision is a supportive framework that encourages quality supervision and active participation in the growth and

development of mental health professionals. It can enhance clinical judgment through thought-provoking vignettes of challenges faced in community mental health and develop strong supervisory skills to support a multidisciplinary team. The theoretical significance of the approach is discussed below.

As mentioned earlier effective use of LMHWs requires quality training and supervision. Psychological empowerment correlates closely with work engagement and leadership (Shi et al., 2022; Fawehinmi et al., 2022). The positive impact of psychological empowerment on work engagement was mainly realized through four dimensions: creating meaning, competence, self-determination and work-impact (Monica &Krishnaveni,2019). Junior psychologists and LMHWs should be encouraged to realize their own values and to see whether activities can provide opportunities for knowledge growth. This fosters the creation of an environment that encourages meaningful work experiences which in turn promotes organizational benefits (Macsinga et al., 2014) (see Figure 1).

*Figure 1. Empowerment model of clinical supervision*



*1.3 The study context: MHAT community clinics in Kerala, India*

The current study was carried out in the context of the Mental Health Action Trust (MHAT), a non-government organization (NGO) based in Kozhikode, in the Indian state of Kerala. MHAT provides free mental health services to economically disadvantaged people in several districts of Kerala. Comprehensive multidisciplinary care has been provided by LMHWs through local partnership with the wider health system since 2009. The LMHWs are the bulwark of community-based work, and tele-psychiatry units are a key element of this model. The roles of LMHWs range from screening and regular domiciliary monitoring of patients to providing group and individual psycho-social interventions, rehabilitation, and family-focused interventions. The tele-psychiatry unit has played a crucial role in pharmacological interventions since 2013 and, as covered in this study extended into supervising psycho-social interventions from May 2021. The study was conducted from October 2021in the transition from the COVID-19 pandemic.

Prior to this study, the primary function of the tele-psychiatry unit was related to pharmacological management through tele-consultation with psychiatrists, generation of e-prescriptions and supervision of pharmacological management for psychologists and psychiatric social workers who conduct the regular face-to-face follow-up of patients.

In this study, a trained clinical psychologist offered group sessions of clinical supervision on both group-based and individual psycho-social interventions over a period of six months (May–October 2021). The Empowering Supervisory Group (ESG) conducted a regular weekly session for each clinic team member, including LMHWs, junior psychologists and the supervisor. A total of 22 clinic teams joined the discussions each week. Each ESG session lasted for up to an hour, and started with reviewing the previous session's action plans. The discussions then focused on out-patients and their care plans. Challenges and new lessons were shared in the group. The sessions focused on improving the quality of clinical work practices and understanding the decision-making processes of LMHWs and psychologists and their impact on patients, multidisciplinary teams, and rural community clinics in the Wayanad, Malappuram, Kozhikkode and Palakkad districts of Kerala. Sessions The supervisors kept written records and participants were encouraged to do the same, along with recorded group supervision sessions via Zoom.

## 2. Methodology

The current study aims to understand the functioning of the ESG to see how the intervention is experienced by participants. It employs a mixed- methods approach to understand participant's perceptions regarding the intervention, what challenges they encoun-

ter, and what aspects of empowerment were experienced (including increased impact, meaning, self-determination and competence).

### *2.1 Study design and instruments*

A total of17 people participated in the study in total. All participants completed a brief socio-demographic questionnaire before the interviews, to understand their respective backgrounds. Qualitative data, aimed at understanding their experiences as part of the ESG, were gathered through semi-structured, in-depth interviews. Questions were aimed at exploring the process of group clinical supervision sessions in acquiring skills and self-efficacy in a task-shared, community setting. A semi-structured interview guide used open-ended questions to examine how junior psychologists and LMHWs are being empowered by the supervision for psycho-social interventions provided through the ESG sessions, the process of supervision, the challenges and strategies it presents, and possible solutions.

### *2.2 Recruitment process*

Participants were recruited using purposive sampling. The psychologists and LMHWs were informed verbally and invited to participate in the study by phone, followed by two reminders. Participants were assured that their involvement was voluntary and that they could withdraw from the study with no negative effects on their employment. Online supervision was offered to 12 LMHWs and four psychologists by a clinical psychologist supervisor. Each participant received at least 12 sessions of an hour each over a six-month period. The supervisor had over 12 years' experience in task-shared, recovery-oriented community mental health services.

### *2.3 Analysis*

Interviews were transcribed verbatim omitting personal identifiers. Data was analysed using deductive content analysis (Elo &Kyngäs, 2008) and coded according to predetermined categories which were formulated based on their search query and the semi-structured interview guide. An analysis matrix of five columns included the specific query, main themes, sub-themes, code, and interview excerpts. Data from every participant was coded and cross-checked for accuracy following which the major themes from each interview question were compiled and analysed qualitatively. The data analysis included, furthermore, three phases. The contents of discussions and process of supervision sessions were analysed to gain a basic understanding of the themes and process. The evaluation

sheets were read and re-read by two independent researchers, and comments that were relevant to this study were analysed.

### *2.4 Ethics*

Ethical approval for the study was granted by the Institute Clinical Research Ethics Committee of the Mental Health Action Trust, Calicut. Informed consent was obtained from the participants through an information leaflet. Data was collected between January and April 2021 through individual interviews. Participants could opt for telephone interviews in view of work schedules, location, and pandemic-related social distancing. All interviews were audio-recorded and conducted by experienced researchers who were not known to the participants and translated from Malayalam to English.Data was handled and stored according to MHAT's Data Protection Policy, ensuring confidentiality.

## 3. RESULTS

*Table 1: Characteristics of participants*

| **Postgraduate-level Psychologist (supervisee)** | | **Lay mental health worker (supervisee)** | | **Specialized Clinical Psychologist** | |
|---|---|---|---|---|---|
| Number | Average years' experience | Number | Average years' experience | Number | Average years' experience in task-shared, community mental health setting |
| 4 | 2 | 12 | 4 | 1 | 12 |

As mentioned before, this study focused on understanding the impact of the ESG on participants; the challenges experienced, but also aspects of empowerment. In Table 1 above the characteristics of participants are shared. There were four psychologists, with an average of two years of experience, plus twelve lay workers, with an average of four years experience. Finally, there was one specialised psychologist present with 12 years of experience. The experiences of supervision can be loosely categorized into three phases on the basis of the learning process, and the data is presented per phase. In phase 1, lack of familiarity with the process and implementation concerns caused initial apprehension and confidentiality concerns. This was remedied among other things by supporting participants to loby their administrative teams to set aside specific time for ESG, which was experienced as empowering and increased ownership of the group. With improvements

leading into the second phase, it was possible to focus on development in the four dimensions of psychological empowerment for instance through emotional support and stress reduction tecniques. In the final phase, participants were fully in control of decision making and were confident to share cases and learn from eachother. We discuss the findings in terms of these three phases below.

### *3.1 Phase 1*

The issues raisedhere can be summarized as: lack of competence, self-determination (autonomy) and impact. These issues were addressed by encouragingparticipants' self-determination, collective decision-making and providing a sense of their impact.

#### *a. Lack of competence.*

Competence, understood as the ability to work at the level outlined in the description of their position, proved a challenge given the significant differences in educational background and work experience. Participants had diverse expertise, but also had different gaps in skillsets for treating mental illnesses. To negotiate this, the first phase involved a process of taking stock of these differences through supervisor's enquiries, but also an emphasis on strengths rather than gaps to accommodate pervasive insecurity and lack of trust. For instance, participants expressed serious concerns about confidentiality which could be understood both as a lack of trust in their own abilities, and a potential fear of being seen as incompetent. This impacted attendance and participation as well;

> *"Initially, I was not confident in that group. Someone is monitoring my work closely and discussing was making me more anxious…I thought about skipping the sessions."*(LMHW, group 3)

> *"Lack of comfort to engage with ESG was there in me in the initial days…I had fear that whether my points are scientific or not, ethical or not…etc."*(P2)

Therefore, the supervisor directed their enquiry towards examples of participants' struggles, and encouraging them to identify the skills and strengths that lead them to particular solutions. This was supplemented by establishing a strong supervisor–supervisee relationship through individual phone conversations; providing positive feedback on their participation and clarifying expectations, rules and standards.

> *"Initially,my supervisor was calling me after the ESG sessions and enquired about my comfort level and she sought feedback for herself to improve her next session. She was*

*actively showing interest in my participation and encouragingme to contribute more. That gave me confidence to her inquiries in the sessions.*" (LMHW, group 3)

*"She described ... core values and guiding principles in our service which helped us to clarify basic ethical concerns."*(P 1)

*b. Autonomy*

A sense of autonomy (self-determination) is necessary in order to navigate community mental health work, without which nobody willtake responsibility for decision making.Autonomy involves making active choicesbased on individual needs and thoughts, to which two key issues in phase onerelate: first, participants struggled to agree on a weeklyslot for the ESG; and second, they were unable to resolve practical issues.Participants indicated challenges agreeing on a time because of differences in availability and obtaining permission to allocate hours to ESG, which was exacerbated by understaffing and competing work demands. Thislack of control over time planning and the resistance to take agency in decision making was noted as a barrier by the supervisor. Similarly, connectivity issues and interruptions were difficult to resolve in initial sessions

*"During most of the sessions, our group members go through the issue of connectivity or sometimes issues with external distractions or privacy...."* (LMHW, group 7)

In contrast to traditional supervision where participants experience a controlled environment, in the simple sense that a closed space is selected, participants experienced the online setting as a risk to their privacy as others might overhear their sessions. Thus lack of autonomy was also seen in the inability to create a practical space to engage in ESG.

These issues were remedied by supervisors encouraging participants to take stock of their needs and independently decide on a course of action, as noted in the quote:

*"Our supervisor encouraged us to present our issue of finding a time for ESG in [the] administrative level. At last we were allowed to get protected time for supervision.*" (LMHW, group 5)

*c. Impact*

Impact, or understanding one'sown role and importance in an organization, is crucial to working as LMHWs and psychologists. Strongly linked to the challenges of competence, differences in experience and education lead to a lack of confidence as participants were

unsure of their comparative importance. This manifested itself as interpersonal issues as some felt too unimportant to voice their opinions, or felt threatened or offended by the expression of others:

> *"I felt difficulty when one group member self-boosts her activities. I keep silent when she is in group."*(LMHW, group 8)

This was also tied to issues of seniority and authority. Passive aggression was continually cited within the workgroups, and particular forms of this arose because of the context. For instance connection issues wereused as an excuse to leave the group as a form of passive aggression, so that evengenuine connection issues were sometimes interpreted in this way.

> *"Sometimes members faced difficulties in tolerating uncertainties of someone's sudden silence or leaving."* (Supervisor)

> *"One group member was dominating the group several times and others were not getting time [to]express their opinions. I felt bad. I suddenly left the group."*(LMHW, group 6)

Thus, tension arose around individuals leaving without warning, not using video or not speaking. There were also occasional instances of explicit conflict:

> *"One of my dominating colleagues questioned my credibility in group. I felt very bad in that. I have not left the meeting."* (LMHW, group 5)

Some explanation for these insecurities might also be provided by a lack of clarity about the distribution of tasks and roles within MHAT, leading to ambiguity and conflict as in the example below.

> *"Most of the time, [the] psychologist is interfering my work. When we discuss cases in ESG, she presented my roles as her roles."*(LMHW, group 4)

These issues were addressed through direct conversations with relevant group members, for instance by addressing those dominating the group discussion, or encouraging those who were reluctant. In some cases an upper limit for the degree of input was established so that the supervisor could give reminders or interrupt when it was exceeded.

> *"Our supervisor prompted to limit the discussion of members who tried to dominate theESG".* (P3)

The issues arising from uncertainty in task-shared roleswere further resolved through individual discussions with the relevant parties.

> *"[The] supervisor explained my roles specifically, to me those specific tasks helped me to clear my roles."*(P5)

***Phase 2***

Having established a baseline of trust and respect, the second phase of ESG began in which different challenges and strategies were seen and worked with. With the increased confidence, participants began to participant more in discussions and decision making, which results in a greater sense of meaning and impact. Further, having established key strengths in relation to competences in the first phase, it was possible to move towards evaluating gaps and addressing problems. Though each of these aspects (competence, self-determination and impact) were closely intertwined, data was extracted for each separately.

*2 a. Building competence*

Competence in phase two was primarily related to achieving a complete baseline set of skills and knowledge appropriate to participants' position and education by identifying and accommodating particular gaps. For instance, competences related to clinical values, client relationships, ethical value-based practice, appreciation of diversity and evidence-based practice. In each session, the supervisor focused on particular clinical activities (e.g. patient follow-up, psychosocial assessments etc) and review participants' case notes and documentation to facilitate enquiry and reflective practice. In doing so, key challenges related to knowledge, skills and attitudes of participants were identified.

Some examples of a lack of knowledge related to psychosocial assessments, interventions and ethical values, came up. Having created a trusting environment, it was easier for participants to open up, and it became clear that some junior psychologists lacked basic knowledge about psychosocial assessments and interventions, and were therefore not confident to comment on or support their LMHWs interventions in the community. Both junior psychologists and LMHWs struggled with the concept of a therapeutic relationship and building rapport with patients, and typically launched into interventions without preamble. Similar disregard was given to the concept of continuity of care, which presents a significant ethical issues.

> *"I was anxious in taking lead role in care planning because of my lesser experience in clinical setting.I have to prepare for each outpatient care."*(P1)

*"Each patient in the next outpatient service were discussed in our Zoom sessions. I was not aware of steps and rationale in each decision-making process of patients. I don't have enough knowledge on scientific interventions for [a] person with severe mental illnessin community."* (P3)

Further developing competences was particularly challenging in some cases given individual difficulties in grasping abstract concepts or difficulties maintaining attention for extended periods of time.

*"Some of the supervisees showed marked issues in their attention and comprehension."*(Supervisor)

*"I take more time to understand some points..."(P2)*

To address these issues, the supervisor took two approaches; building on the previous practice of focusing on strengths and emphasizing self-efficacy or the ability of participants to affect their own circumstances. This was done by encouraging members to share their success stories as well encouraging feedback and support.

*"[The] supervisor's way of asking questions gave us different perspectives in psycho-social assessments and interventions. When we do proper assessments and interventions she gives as thumps ups. That is really a social reinforcement for us."*(P2)

*"The success stories from colleagues help me."*(LMHW, group 2)

Participants cited three further factors that enabled their learning.First, attending in a comfortable space, which reduced the stress of travelling and allowed time for self-care. Second, participants reported that the recorded sessions helped to remind them of their assigned tasks and knowledge, which gave them a feeling of control over the previous session. Third, they reported it was a supportive environment in which they couldcommunicate their feelings openly.

*"Travelling all the way from home to Calicut for this discussion is not here.I can save 6 hours of travel time and utilize this time for more selfcare activities."*(MHW, Group 3)

*"Our supervisor appreciated the communications verbal and nonverbal.... She asked us to type the major points in chats. At the end of each session, major messages were shared in screen."* (P3)

Finally, by focusing on strengths the supervisor helped participants to compensate for limitations and skills.

> "*My supervisor showed my specific skills in conducting group sessions.*" (MHW, Group 3)

> "*It was interesting to find out their strength and reflect to them.*" (Supervisor)

*2.b Autonomy*

Given the horizontal leadership of community healthcare, participants both experience the empowering leadership of others and were in turn leaders in their own setting. As such, autonomy and decision-making capacity are essential to their work, and though autonomy is a complex construct that includes a combination of skills and knowledge, the skills can be taught, measured, and most effectively developed through regular practice (Li et al., 2015). Autonomy in phase two was strongly linked to competence where insecurity and a lack of guidance resulted in difficulty setting professional boundaries and engaging in clinical problem-solving.

Issues in establishing professional boundaries were evident in the area of clinical decisions as some participants struggled with sharing information, fixing boundaries in the community, maintaining the division of responsibilities in clinics, and using time for clinical activities:

> "*I have confusion in sharing some confidential matters of patients in [the] community clinic volunteer group, especially sexual abuse issues.*" (LMHW, group 2)

> "*I had difficulty in stopping unnecessary gossiping from community clinics, especially community clinic staff members' internal politics.*" (LMHW, group 3)

> "*Sometimes, volunteers interfere in clinical activities like home visits. They will have [the] tendency to intrude into discussions [during] home visits.*" (P4)

Participants also identified issues related to clinical problem-solving, which in this context involves understanding symptoms and identifying and prioritizing potential diagnoses. These actions in turn require an investigative mindset, collecting and processing information, evaluating and analysingthis information, and setting actionable goals. Struggling with these competencies resulted in indecisiveness and confusion. Participants gave examples relating to careplans and implementation.

> "*I am not confident to communicate in group about my care plan.*"(LMHW, group 4)

*"I think we need to be clearer in rationale and scientific evidence about interventions and principles."*(P3)

To tackle these problems, supervisors focused on providing opportunities to practice decision making, for instance by asking for input as a starting point in the discussion of clinical activities, requiring increasing participation in decisions in different domains, and discussing possibilities and the limitations and risks associated with them. Collaborative decision-making was encouraged and a protocol developed that entailed listing alternative relevant actions, identifying their possible consequences, assessing the probability of each consequence occurring, establishing the relative importance of each consequence and integrating these probabilities to identify the most attractive course of action and associated achievable goals.

*2 c. Impact and meaning*

The improvement in autonomy and competence directly affected the participants' sense of impact and meaning. By more thoroughly understanding and implementing MHAT's protocols in relation to daily activities such as outpatient services, vocational rehabilitation, support groups and case management, participants were able to experience improvements in outcomes directly. However, some challenges were still experienced relating to a lack of knowledge on the rationale of their activities and not seeing the value of their daily practices to the organization. Concerning the former, participants often cited that they carried out certain activities without truly understanding why they were doing so. For instance:

> *"In Multiple Family Support Groups in my community clinics, I felt lack of confidence and stuck in continuing sessions. That caused absenteeism in participants."* (LMHW, group 2)

The resulting impacts on the quality of the intervention likely furthered the sense that there was no meaning to the activity. According to the supervisor, this cycle contributed to problematic behaviours;

> *"Recurrent unplanned leaves and absenteeism in meetings without any particular reasons were very evident their perception of unimportance."*(Supervisor)

As such, the supervisor sought to break the cycle by explicitly discussing the mechanisms behind the different activities of MHAT in the ESG. These discussions were brought back throughout several sessions.

> *"In ESG, our supervisor asked the rationale of the activities before we do. She helped us to think the activities like Multiple Family Support Groups and Day care are helping others to improve others quality of life."*(LMHW, group 1)

*Phase 3*

After four months, the nature of group sessions addressed a more managerial and organizational level of functions. After establishing a baseline of trust, and the second phase of targeted support, the dynamics created by empowerment-based leadership resulted in a shift in participants' attitude through which they came to a sense of impact and meaningfulness that led them to take ownership of the overall functioning and success or failure of the organization. They felt empowered to take an active role in evaluating and addressing organizational challenges, and took part in decision-making. Participants took initiative in improving quality and standards in several organizational areas like policies and strategy planning. For this to be possible, significant developments in competence had to be made as supervisees needed to have capacities not only to act in the wide variety of situations arising in their own clinic, but to understand well enough to encounter commonalities and directions for improvement. This demonstrates a grasp of scientific knowledge and ethical and legal standards and policies as well as communicative and empathetic skills.

Only one key competence still required addressing, which related to documentation. Documentation refers to the records an organization keeps and uses to inform decisions within community clinics. Participants demonstrated a lack of regard for this process which required further explanation of its significance, for instance relating to the reminders of organizational standards that could be found in documentation of MHAT. In ESG, they used Zoom to share screens to get feedback on group members' best documentation models.Suggestions were gathered from group members and written on a Zoom collaborative whiteboard and saved for later use.

> *"I was using the presented documentations and suggestions as [a] reference point. When I want more clarity in this, I go through the recordings, which gives me more clarity."* (LMHW, group 9)

Another particular form of documentation that was addressed related to task allocation, which is one of most important managerial roles in a task-shared community mental health setting. To strengthen this a common task platform was created to share tasks within supervision groups through their WhatsApp groups. This was shared via Zoom, and everyone could see exactly when their tasks were due and, more importantly, why. Thus, sharing tasks in the ESGZoom session became transparent and well organized so that every-

one knew exactly what we going on which made self-determination easier. Accountability for each member's role in overall patient care might also to boost productivity.

> *"Each ESG sessions started with screen sharing the task list. We will get [a] proper idea on which tasks are pending and explanation also needed. When you finish the task, you appreciate each other."*(P1)

Finally, it was demonstrate in group interactions in phase three that participants felt more in control of their own behaviour (self-efficacy), able to take active decisions (autonomy) and thus felt like they could contribute (meaning/impact). For instance, they started to present their best practice models in all staff groups voluntarily. The achievement of impact and meaning empowered them, and they realized they could contribute something to their colleagues from their experience.

> *"Now I know my special skills in identifying community resources and proper utilization for our patients and family. Now I am confident to present this success stories in front of our other colleagues."* (P4)

***Table 2: Challenges and lessons learned in each phase***

| | Phase 1 | Phase 2 | Phase 3 |
|---|---|---|---|
| Comptetence | Fear to be found incompetent increased insecurity<br>Competence in use of online applications | Assessing strengths of participants to encourage problem solving<br><br>Discussing cases to work on clinical values, relationships, ethical practice etc.<br><br>Recorded zoom sessions as a guide/ reference<br><br>Targetted feedback | Awareness of competences and needs- tackling specific challenges with documentation and administrative policies.<br>Sharing experiences and providing corrections for eachother. |

| | | | |
|---|---|---|---|
| Autonomy (self-determination) | Ask for input and provide opportunities for decision making.<br>Encouraging independent action on time and space for supervision. | Encouraging boundary setting and clinical problem solving<br><br>Reccording sessions to allow the choice to listen at any time | Ownership and decision making about ESG<br>Indipendent action on documentation and administration<br>Sharing of own success tories. |
| Impact | Verbl reassurance<br>Positive feedback | Opportunity to present successes<br>Encouraged to give achother positive feedback | Encourage supervisees to take new responsibilities-roles |
| Meaning | - | Rationale of each activity and expected outcomes should be discussed | Provide opportunity to share success stories |

## 4. DISCUSSION

This research aimed to understand the functioning of ESG in the context of junior psychologists and LMHWs in rural India, and investigate how they experienced ESG by exploring challenges, learning from challenges, and experiences of empowerment.Regarding the process,weekly meetings were generally structured around case analysis or the sharing of experiences, with the role of the supervisor shifting from a 'curious enquirer' or mediator to a more mentoring and ultimately facilitating role. The intervention was found to function in three distinct phases. While there was significant overlap between them, it can be summarized that the first phase required the express focus on building trust and rapport,emphasing strengths in participants, in order to tackle the insecurities and interpersonal conflict arising from the experienced lack of competence. With some baseline of trust established, the second phase focused more on building competences through sharing experiences, which also had a significant effect on the participants' perceived sense of work-related meaning and impact. Finally, in the third phase, true self-determination or autonomy was established, as the supervisees took the initiative in identifying areas of competence to work on together.By constant monitoring and adjustment on the part of the supervisor, the ESG was able to gradually move towards the empowered state necessary for mental health staff to make independent evaluations of complex situations and decide on a course of action, where improvements in competence, self-determination, and perceived meaning and impact as related to the empowerment model provided a useful

unit of analysis. Within these phases, a gradual acclimatization to the online setting can also be seen, where the initial concerns about privacy, difficulty finding time and space and connection issues were resolved or became close to irrelevant.

### *4.1 Supervision Process*

The first research question was what the process of the Empowerment Supervision Group would look like within the context of supervision of LMHW and junior psychologists in rural India. Though existing research has established the potential for clinical supervision at a distance, if not specifically supervision in a task-shared environment, the particular focus on empowerment in relation to complexity is entirely novel (Jefee-Bahloul, 2017; Sallie De Golia& Corcoran, 2019; Martin et al., 2017; Augusterfer et al., 2020). Therefore, though more publications regarding supervision online may be forthcoming given the alterations to working environments arising from the COVID-19 pandemic, it should be considered whether the potential benefits (cost-effectiveness, less travel challenges) of digital supervision in low resource settings are generally considered with sufficient nuance regarding the degree of independent action that classical models actually enable (McCord et al., 2020; Watters & Northey, 2020;Jefee-Bahloul, 2017; Augusterfer et al., 2020). To that end, this study provides an example where the dynamic supervision strategy focused on participant needs through an empowerment framework might provide an example. Once consistency was established, the hour-long weekly supervision began to set concrete agendas and learning goals. This included, among other topics, legal and ethical issues, consultation on individual cases, client safety and participants' development. Indeed, the importance of structure and consistency in clinical supervision has been highlighted in previous research in relation to the developmentof the professionals being supervised (Woo et al., 2016; Martin et al., 2017; Kelly &Hassett, 2021). The three distinct phases in the nature of the supervision can also be linked to best practices in supervision, such as the need to build trusting relationships as a baseline (Holloway, 2016; Rothwell et al., 2021; Kelly &Hassett, 2021).

However, the particular emphasis on managing power dynamics inherent in hierarchical structures, and the related issues with authority may be more characteristic of the particular study context regarding community clinics in India. Having established a positive learning environment, the second phase focused more on assessing participants' strengths and providing feedback. This aspect is strongly characteristic of an empowerment-based approach and thus relates to an abundance of other works whose benefit has been established in systematic reviews (McQuaid et al., 2018; Anderson et al., 2018; Kelly & Hassett, 2021). With the associated improvement in confidence generated by this

approach, it became possible for the final phase to pass more agency to the participants as they determined their own needs regarding administrative responsibilities, time management and team building. Though all aspects of empowerment played some role in each of the phases, this study contributes to knowledge on Murphy's (2019) model by considering the ways in which professional development of clinical staff involves an aspect of prioritization, where for instance the fear of being found incompetent must be resolved before self-determination or understanding of impact and meaning can be considered.

### *4.2 Supervisee Experiences*

Thesecond research question was to identify the challenges participants experienced. As noted in relation to the process, the nature of the challenges and the supervisors' tactics shifted in each of the different phases. For instance, in Phase 1, where practical challenges relating to bandwidth and connectivity occurred, here as in other literature the relationship between competence and fears of incompetence added a dimension to connectivity issues that related to interpersonal conflict (Bernhard &Camins, 2020). Indeed, such conflict in professional relationships resulting from a negative emotional load in care practitioners have also been identified elsewhere (Larose, 2020). With these conflicts addressed through building trust and planning of the first phase, the potential of tele-supervision relating to convenience and lack of geographical barriers became more visible (Inman et al., 2018; Saedon et al., 2020; Tarlow et al., 2020). Yet the interplay of challenges related to (dis)empowerment continued across the phases in shifting forms. For instance, perceived incompetence had caused feelings of powerlessness for some participants that kept them from making their own decisions and thus from feeling their impact and meaning within the organization. This prerequisite faith in one's own abilities is noted in other studies; as is the importance of peer and supervisor feedback and reassurance in addressing the issue (Zamani-Alavijeh et al., 2019; Morrison & Lent, 2018).By reframing challenges as opportunities, participants were able to take decisive action that fostered their self-efficacy and drew them on into the third phase in which they themselves were able to set the agenda of the sessions and reach agreements together. The importance of this level of empowerment is further supported by the work of Kane et al. (2016), which established the link between the ability of LHWs to empower populations, and their own state of empowerment and abilities. Hence the rising trend of empowerment leadership, and the working definition of empowerment applied to LHWs in numerous other studies also finds further support in this study (Bunders et al., 2019; Kane et al., 2016).

*4.3 Use of Technology*

In spite of the discomfort experienced with the online medium in the first phase, it was gradually apparent that the use of technology ultimately contributed to participants' autonomy in that they were able to join from their own working environments. This is especially significant giving the geographical distinctions in the different clinics of MHAT. This contributes to a growing body of literature on the promotion of ownership, equity and agency through online learning (Bali & Caines, 2018; Pondalos et al., 2022; Baru et al., 2020). Creating competence with online platforms, for instance using the white board function of zoom, or the thumbs-up function to provide positive feedback was both a challenge and ultimately an impactful opportunity. Where initial concerns about privacy existed, the ability to watch back recordings and create joint note taking was ultimately experienced as a valuable extension of more classical supervisory formats.

## 5. Limitations

There are limitations of this study, which include: (a) the use of purposive sampling; (b) data from a single organization; (c) small sample size; (d) potential response bias; and (e) varying levels of experience with peer supervision in respondents. Purposive sampling is a non-probability sampling technique that reduces the generalizability of the research findings and increases the likelihood of selection bias (Haute, 2021).The small sample size could also limit the generalizability of these research findings to the specific population (Vasileiou et al., 2018). Regarding internal validity and sample size, it is not known whether these research findings can account for the full field and variation of the phenomenon being examined (Vasileiou et al., 2018). In addition to the limitations associated with a small sample size, it is possible that some participants exhibited response bias when answering the interview questions. For instance, participants might respond in a way that is perceived as more socially desirable to the researcher (Bergen &Labonté, 2019). Other variables relating to the researcher's demographic and interview characteristics could also potentially have biased participants' responses. Variables such as the researcher's role in the organization could significantly affect bias in participant response (Van der Schyff et al., 2022). Finally, a variation in the amount of supervision received across the sample as well as the level of experience of working was suggested as influencing LMHWs' perspective and response time to interview questions. Experience in community clinics could significantly influence LMHWs' perceptions regarding the extent of the role supervision played in the initial development of clinical skill sets.

## 6. Conclusion

This study explored the processual functioning of Empowering Supervisory Group (ESG) in the context of junior psychologists and licensed LMHWs in rural India, in order to determine the feasibility of empowering health workers to address the complexity of mental health through online supervision. The importance of empowerment through supervision generally (D'arcy 2018) and relating to complexity in particular (Bunders et al., 2019) is well established, yet the practical means of doing so in low resource and geographically restricted areas are still limited. The use of task-sharing to address human resource shortages has been established to involve a reconfiguring of specialists as supervisors and mentors of junior colleagues and LMHWs (Asher et al., 2021). This study found that it was possible to provide empowering supervision online through the application of dynamic supervision that focused on those aspects of empowerment that could be identified as the priority, resulting in responsiveness to needs and improved outcomes.

### *6.1 Implications for future research*

In addition to a general call to consider the importance of supervision in task-shared environments and the potential of empowerment as a focus for such supervision, this research points to particular future directions regarding complex leadership. Future research should consider the question of the scalability of flexible and dynamic supervisory practices to trace the potential of replicating this work in other contexts. Furthermore, pursuing direct links between empowering supervision, complexity leadership and community outcomes could present interesting data. The relationship between different aspects of empowerment and the building of supervisory relationships over time would benefit from further research to establish trends in terms of priority-setting at different points in time. Such research should also consider the differential factors of different supervisors, as well as the level of homogeneity of experience and background of the participants. Quantifying the beneficial outcomes of empowerment-based approaches of supervision and training might also provide further impetus for the consideration of this method.

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Chapter 8

# Towards Integrated Mental Health Care: A Case Study on the Evolution of a Mental Health Organization in Kerala, India

**Abstract**

Recent developments in mental health have emphasized the need for more comprehensive and holistic perspectives on mental health care, especially in response to people living in adverse circumstances. The current paper aims to understand the development of a mental health organization towards integrating two different models of care for impoverished communities in the rural parts of Kerala, India; the biopsychosocial model and a social development model. Qualitative data was collected over the course of seven years (2015-2022), including field notes, informal and formal conversations with staff members including mental health professionals lay mental health workers, and community members, and documentation of activities. The findings reveal key challenges and opportunities for working towards integrated care. We conclude that, although integration is perceived as incredibly challenging, it is nevertheless feasible to effectively combine models of mental health and social development in one wellbeing focused approach.

## 1. Introduction

Awareness of the scope and impact of mental illness on global populations has increased in the last few decades, with statistics indicating thatmore than 450 million people are affected globally, accounting for 32.4 of years lived with disability, and generating costs of over 2.5 trillion dollars to the global economy (WHO;Rehm& Shield, 2019; The Lancet Global Health, 2020). Nowhere is this burden felt more acutely than in Low and Middle-

Income Countries (LMICs) where more than 70% of people with mental disorders live (Atkinson & Mabey, 2019). Indeed, in a recent national health survey in India, the prevalence of mental illness was found to be around 14% (Amudhan et al., 2020).

The treatment gaps in LMICs too are substantial, with numerous barriers limiting the access to the available services, such that up to 90% of those in need may not receive treatment (Velin et al., 2020; Raviola, 2018). This presents even more significant issues for individuals with severe mental illness, as they require complex, long-term interventions for treatment (Patel et al., 2018; Gamieldien et al., 2020), in which multi-disciplinary knowledge needs to becombined. Indeed, this complexity is a significant factor in epistemological shifts within psychiatry that advocate for more sensitivity to the concept of subjective wellbeing, as presented for instance by Engel's Biopsychosocial model (Gamilidien et al., 2020; Engel, 2017). Though this approach has been broadly accepted in the field, it still faces criticism for its lack of helpful guidelines, resource intensiveness and individualistic scope (Haslam et al., 2021; Karunamuni et al., 2021;Smith, 2021).

Even insituations where treatment, resources and continuity of care can actually be guaranteed, severe mental illnesses in LMIC are subjected to limited improvement due to a range of underlying issues and contextual factors. This is most apparent, for instance, in the significant body of literature on the vicious cycle of poverty and mental illness (Rose-Clarke et al., 2020; Lund et al., 2018), where people from low-income backgrounds, with low levels of literacy and lack of economic meanshave a higher risk for developing mental illness (Chronister et al., 2015).People with mental illnesses are unable to earn and contribute to their families, thus worsening their poverty (Espinolaet al.,2022). This persistent problem highlights a particular cross-disciplinary synergy that is increasingly recognized in the literature between social development and mental health (Plagerson, 2015).

Though both fields are involved in the improvement of wellbeing within communities, they rarely interact, such that social development interventions hardly ever properly consider the impact or limiting effect of poor mental health, and mental health interventions rarely tackle the root problems creating adverse circumstances (Espinolaet al., 2022; Alegría et al., 2018; Lund et al., 2011; Patel, 2011). Furthermore, the field of social development itself experiences similar problems to that of mental health in integrating complex factors of social, economic and environmental dimensions (Plagerson, 2015). As such, a number of recent studies have discussed the need for greater integration between the two fields.Yet even in these initial papers it is assumed that true integration is highly unlikely to happen given the differential emphasis on the individual/family on the one hand and challenges in the community as a whole on the other (Colizzi et al., 2020; Burgess et al.,

2020; Plagerson, 2015). In order to grapple both theoretically and empirically with these claims, this article presents the organic growth of one organization, the Mental Health Action Trust (MHAT) in India towards integrated care, including best practices, practical needs (Fisher, 2022) and research that are centered around the concept of mental wellbeing. Mental wellbeing is understood here as an integrated form of mental care, as it encompasses a broader idea of what mental health entails, including aspects of social development (Benoit &Gabola, 2021). Through an analysis of its development over time and the core concepts that emerged as critical factors, this article aims to understand how individual biopsychosocial factors and community level social determinants need not be treated as distinct when operating from a place of social embeddedness, complexity and wellbeing.

### *1.2 Theoretical considerations*

#### *1.2.1 Two models*

This study considers two widely accepted models from the distinct fields of social development and mental health, starting with the biopsychosocial model of mental health. Originally proposed to emphasize the social and psychological dimensions of mental health, in addition to the more classical biological focus, this model is well-established but also poorly implemented in medical fields (Berzoff, et al., 2021; Pilgrim, 2021). Centering on the individual, this model considers the direct social environment and psychological pre-dispositions of the individual, but does not touch on the wider social, political and economic context within which they are situated, nor does it consider the potential for prevention in its starting point with an individual defined as being ill (Engel, 2017). Critical literature on the model has noted that for all its attempts at a holistic approach, it is ill-suited to application in low resource settings given its time-consuming nature, unavailability of clear clinical guidelines and prerequisite training and specialization (Park & Kim, 2019).

On the other hand, in the social developmental model, the starting point is the larger community, including people who are healthy or people who are not (yet) ill. These initiatives happen across both the governmental and non-governmental sectors (Compton & Shim, 2020). Importantly, these community initiatives happen in parallel to the community based but individually focused biopsychosocial mental healthcare model (Compton et al., 2020). Social developmental interventions flounder when they take place in isolation. The mental health needs, accidentally uncovered, block or slow down the developmental activities (MacPherson, 2019). Despite the clear interaction between mental health and development, mental health has remained a narrow, uncomfortable or absent concern within development paradigms and practice (Plagerson, 2015).

### *1.2.2 Integration of models*

Both mental health and development stand to benefit from a deeper strategic integration, which need not eliminate the distinctiveness of the two sectors. A greater attention to mental health within development keeps the individual at the center of development and underscores the need for simultaneous attention to both material and nonmaterial outcomes in the short term and long term, at individual and collective levels. For the mental health sector, a greater synthesis with the socio-economic and political domains is likely to accelerate the quest for scaled up mental health service provision, and to foster a more effective alignment between treatment and prevention of mental illness and promotion of positive mental health (WHO, 2015).

However, researchers contend that the integration of these two models is challenging to the point of impossibility (Plagerson, 2014). Among the reasons, they note the challenge of working across disciplines given the need for an exchange of expertise and, more significantly, the large disjuncture in the 'object' the two different fields concern themselves with, where mental health concerns itself with the individual and social development with communities (Colizzi et al., 2020; Plagerson, 2015). This is visible for instance in the supposed aims of mental health as the medical outcome associated with numerous biopsychosocial factors, and the economic or philosophical approach to happiness in social development (Terziev,2019; Colizzi et al., 2020;Burgess et al., 2020; Plagerson, 2015). Finally, the expertise exchange and organizational implications would require planning and resources beyond the scope of most low resource settings (Colizzi et al., 2020; Plagerson, 2015). Previous work on integration has therefore argued the need for discrete approaches that treat the different disciplines as complementary, relying on the collaboration of different actors rather than a unified approach.

## 2. Methods

The current study was conducted in the context of a mental health organization in Kerala India, called the Mental Health Action Trust (MHAT). The organization has been providing community-based care to the poorest of the poor, in rural Kerala, through a network of clinics since 2008.Initially, the focus was on the provision of comprehensive care in the biopsychosocial model which itself would be an improvement upon the existing overstretched biological model of delivery of mental health care. The model involved provision of decentralized care through trained volunteers on a large scale supported by technology and task sharing. The care is provided free, exclusively to people from economically disadvantaged backgrounds. Sustainability was ensured by encouraging commu-

nity ownership. As the organization evolved, the direction of progress came to be moving away from a medical to a social model of mental health care delivery.

The study focuses on the evolution of the MHAT model of community care through the analysis of data collected over seven years of organizational development.

### *2.1 Data collection*

Data was collected between January 2015 and April 2022 through qualitative methods, including in-depth interviews with various actors of the organization, as well as field observation notes and documentation of practices written by mental health professionals and lay mental health workers (LMHWs).Participant observation was the main source of data, collected through fieldwork each week over a period of seven years. Observations, information about the programs and interviews with key personnel were documented in narrative accounts of on-site visits tocommunityclinics. Information was also derived from documents, e.g. brochures, minutes of staff meetings, material on the internet, annual reports, and periodic site visit reports. Data was handled and stored according to the Mental Health Action Trust's Data Protection Policy ensuring confidentiality.

Although this research was mostly inductive (largely aiming to explore the context of organisational development as emerging from the field itself), we did also ask specific questions to guide the study with regards to understanding the integration of two health models. Questions were asked to various staff, for instance, in relation to the vision and values that were guiding their services and practices before and how these evolved over time (1), what challenges were- and are still encountered when establishing services that adhere to a well-being/integrated approach of mental health care (2), what opportunities for learning and growth (enabling factors) led to better integration (3), and what the results or consequences of changes in the organisations were experienced (4).

### *2.2 Data analysis*

Following the site visits, data converted the narrative accounts, transcripts of interviews, and, whenever possible, the documentary evidence, into text files that were analyzed according to service-level indicators. Site visit reports were then prepared by researcher and, to be certain that the reports were accurate and did not contain significant gaps, circulated among the MHAT team members. To present the results here, we have arranged information about the services into the following domains -timeline of the development of MHAT services, process of developing the model and the resulting MHAT model.

*2.3 Ethics*

Ethical approval for the study was granted by the Institutional Clinical Research Ethics Committee of the Mental Health Action Trust, Calicut. Informed consent was obtained from the participants through an information leaflet.

## 3. Findings

The analysis of the data collected over seven years has led to an overview of how MHAT clinics evolved towards an organization that offers:

a) care to a wide population, including those who are hard to reach,

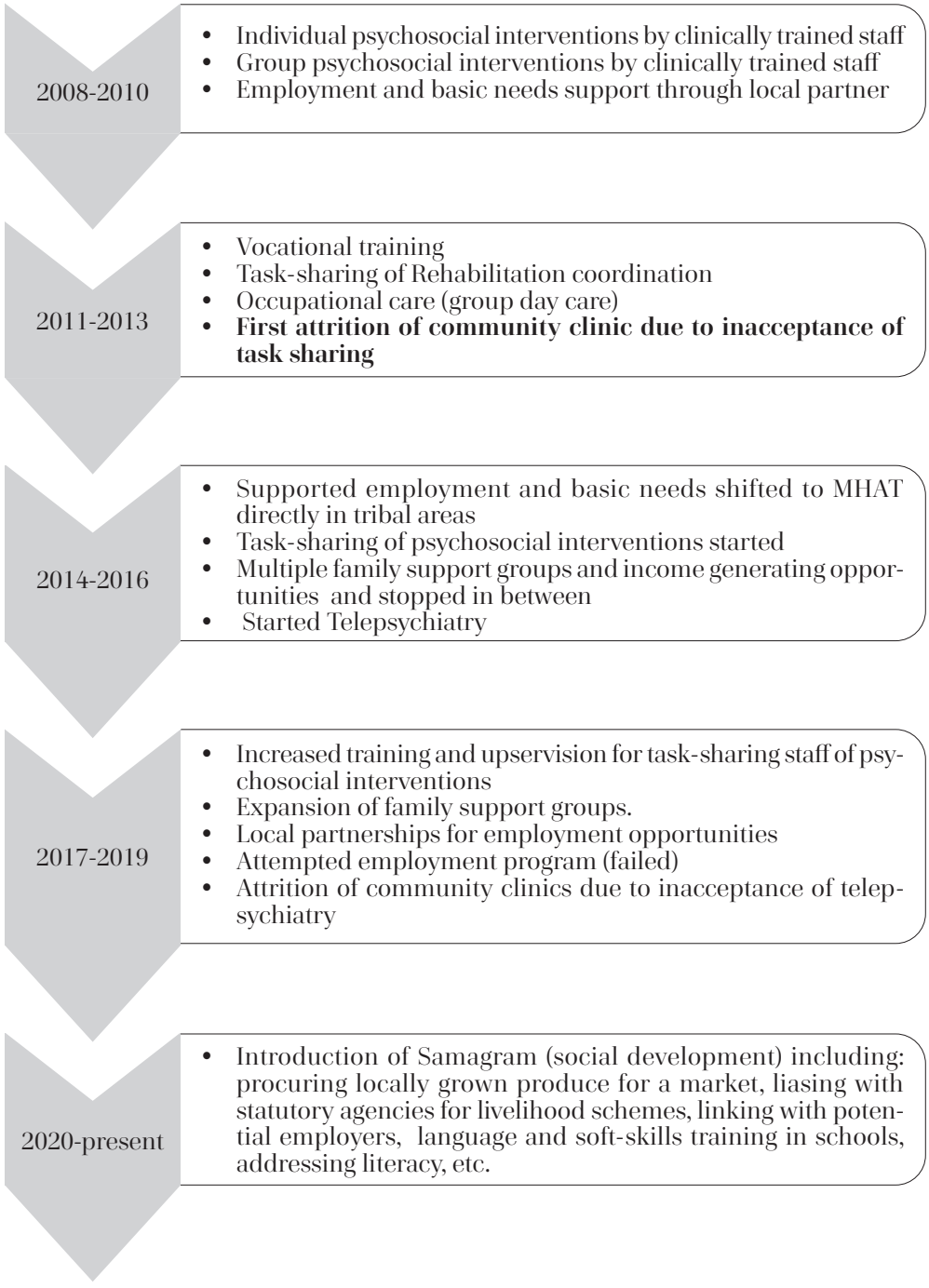
b) including services that have gradually moved away from a mainly psycho-medical model, by employing various community development-driven programs (figure 1),

c) in ways that aims to be sustainable, systematic and prevention-oriented fashion, and

d) is organized with a variety of staff who are not professionalworkers,trained and guided in offering contextualized care.

The findings focus on reporting the developments, as reflected in figure 1, and explains why and how it happened by focusing on an overview of MHAT's service, the role of local partners and (vocational) training, integration of mental health goals with social development, challenges in organizational development and finally on dealing with complexity through the specified key factors for integrated, wellbeing oriented care in remote areas.

*Figure 1. Timeline of MHAT transition*



### *3.1 An overview of MHAT's services and the development of embedded care models*

As presented in the timeline, one of the most significant factors in MHAT's approach is its responsiveness to the communities it works in, which arose as a possibility primarily because of its gradual embeddedness in these environments. From the beginning the aim was to provide as comprehensive care as possible which included socioeconomic help to the needy but this was left to the local partners as MHAT did not have the resources to directly intervene. While there was an original, mostly intuitive, responsiveness towards factors that were not strictly mental health oriented these were done largely ad-hoc and in unstructured fashion. Providing food, clothing, roofing and other essential repairs to dwellingswere always seen as high priority. The fact that some of the mental health interventions were, at the start of MHAT, still largely oriented towards biopsychosocial responses (including e.g. the provision of medicines and psychological treatments), often prevented recovery in the community as more structural issues were not resolved.

For instance, as one professional explained:

> *"Sometimes we can not depend entirely on local communities to help their own because they themselves are struggling or their mutual support infrastructure has broken down, especially when faced with severe mental illness.An example was a client living on her own with untreated severe mental illness. The hut she lived in lacked even the most basic facilities such as drinking water or a toilet. Apart from this she had a festering leg ulcer which was covered with flies and maggots. Her condition was known to others in the neighbourhood but her delusions against her neighbours meant that-she would not accept help from them. Gradually she began to accept the visits of the MHAT team who first of all arranged drinking water facilities. She began to take mediciations leading to an improvement in her mental state. She agreed to see a physician who diagnosed her leg ulcer as from leprosy. She agreed to to move into one of the few remaining leprosy homes (the prevalence of leprosy has declined in India) where she would be looked after well. So all her needs – medical, social care and physical such as basic amenities could be met."* (Senior Clinical Psychologist)

> Another example: "*It was noticed in the outpatient clinic that a mother was expressing anger and frustration towards her daughter, who was the client. It was interpreted as a relationship issue and it was decided that a home visit should be carried out. When the visit happened, a complex picture emerged. There was no food at home.The client was suffering with fever and was having repeated seizures. The mother was struggling with a flare up of chronic back pain. The father was a fisherman and the sole breadwinner. His own physical health issues prevented him from going to searegularly. The*

*local partner of MHAT had arranged emergency rations in the past but was struggling to do anything more. Hence, MHAT stepped in and arranged for physical care and treatment for all three as an emergency. Later, the family was enrolled in a micro-finance scheme so that they had an alternate source of income. A close relationship and regular monitoring were key to the success of the intervention".*

In both the situations, physical illness, often in multiple family members, poverty and lack of local supportintertwine to complicate the problems faced by people with severe enduring mental illnesses.

*3.2 Local community partners*

At the beginning, the local partners were all from the local community palliative care networks. They were mostly volunteers with a few paid nurses and doctors. They were looking after people with chronic medical conditions, people who were bedridden and people with end stage cancer.

For them, looking after people with mental disorders was a new challenge. As a staff member explained:

*"We started the outpatient service from 2008 onwards as a part of the pre-existing palliative care service network in Kerala. This was a new experience for the palliative care volunteers in that they were able to see people recovering from long term mental disorders and going on to lead productive lives. Before this, their experiences were with terminally ill patients or those suffering with long term conditions such as paraplegia from which recovery was not possible. Caring for people with mental disorders thus became a rewarding experience for the volunteers contributing to the spread of MHAT services.But of late, the number of volunteers is declining and we slowly realised that we can not depend on the palliative care network alone. Thus we began looking for diverse partners."*(LMHW, 12 years experience with MHAT, 8 years experience in palliative care)

An important aspect is to empower the volunteers and allow them freedom to innovate.

*"I like volunteering in the community clinic. The person-in-charge acknowledges my work and he provides me freedom to work, directly with the MHAT clinical team. It is giving me happiness. Now I use mysocial networks work for arranging social welfare schemes and jobs in close liaison with the clinical team of MHAT."* (Senior community volunteer, 10 years experience with MHAT, 12 Years experience in palliative care)

However, at times there can be issues with the provision of social support by the local partners.

> *"Once I discussed about arranging housing support for a patient. The local community clinic leader opposed it and said that we are providing medicine support and consultation freely. This is more than enough and we can't meet the expenses."*(LMHW staff, 7 years experience in MHAT)

### *3.3 Vocational Training*

Vocational training began to be provided around 2011 with the expertise of one particular social worker and involved training to provide services or create products based on the patient's interests (e.g. embroidery, candle making, carpet weaving or making jewelry). This emerged in relation to the association between poverty and mental health with an eye on recovery but also had implications for secondary and tertiary prevention.Vocational training proved difficult to implement in all clinics as it depended largely on local expertise and particular staff members. The visible improvement this service had on patient wellbeing did ultimately increase employee buy-in.

> *"Without local community teams' ownership, we can't implement any activity like vocational rehabilitation or training for our patients. Local community teams and leaderships are changing frequently and the implementation will completely depend on the clinic authorities. It was not sustainable, when we attempted once. There was a need of sustainable development along with our treatment."* (Senior CMHW, 9 years experience, MHAT)

> *"Whatever we started as vocational rehabilitation through community clinics, there was no person to take the responsibility of marketing or advertisement for a longer term. All those couldn't bring any sustaining income for patient or family"* (Psychiatric social worker, 5 years experience, MHAT)

### *3.4 Family support groups*

The family support groups emerged out of needs expressed by family members of clients, which resulted in the development of a problem-solving, psycho-education intervention for families to help them reframe client behaviors in a way that improves family communication skills.

*3.5 Integration of mental health goals with social development*

The time-line (figure 1) reflects the activities that were, over the years, added to the more basic psychiatric (at the beginning only individual) treatments. We see that these activities largely include programs that are not commonly associated to mental health clinics, but this was a relatively natural development. As one of the staff members explained:

> *"The development of MHAT has been organic. We started with individual medical care of persons with severe mental illness, gradually appointing psychologists and social workers to provide psychosocial care. The number of community clinics and volunteers slowly grew. However, there were so many issues in the community clinics which came in the way of supporting the comprehensive care mooted by MHAT. These were structural and societal. Later, MHAT expanded by integrating social development activities, because we experienced the need for it in the communities. This has culminated in a new program called Samagram, which focus on the overall wellbeing of community rather than only focussing only on unwell individuals."* (Senior Clinical Psychologist, 12 years' experience in MHAT)

Nonetheless, shifts in the provision of the emerging services occurred in an ad-hoc manner as they were very dependent on local resources and individual community workers' initiative, which often meant a lack of targeted focus on sustainability. As such, the division of responsibility for both vocational training and basic needs ultimately varied per clinic, with some successful local partnerships and others depending more directly on the local community clinic. This shows how much of the initiatives taken in community-based care can be born relatively quick, but need to be supported systematically to sustain. The problem was then addressed in the emergence of the more structured Samagram program that demonstrated the culmination of organizational learning and collaboration, as the growing community embeddedness and local partnerships gradually demonstrated the potential of MHAT to catalyze social development.

*Table 1. Areas of social development as conducted in MHAT*

| *Area of social development* | *Activities* |
|---|---|
| **Poverty alleviation / livelihood generation** | Training programmes involving external experts using naturally grown produce and local resources such as bamboo |
| | Procuring locally grown produce and ensuring a market at non-exploitative prices |

| | |
|---|---|
| | Helping with value-addition to raw materials and marketing for the same |
| | Liaising with statutory agencies to access existing livelihood schemes |
| | Linking with potential employers to provide jobs |
| **Education** | Linking with local schools to address psychological issues of children and teachers |
| | Provision of after school hours teaching |
| | Language and soft skills training through schools |
| | Addressing illiteracy in the adult population |
| **Education Poverty alleviation / livelihood generation Youth development** | Soft skills training to improve employability |
| | Promotion of arts and sports |
| **Substance misuse** | Organising families affected by substance misuse |
| | Community based treatment programmes |

### *3.5.1 Core aspects of integration – Well being*

Though MHAT's perception of mental health has always been informed by more holistic approaches like the biopsychosocial model of health, the actual activities carried out initially were also informed by the clinics themselves which often had a chronic illness focus. With the increasing activities as well as the greater embeddedness of the clinics, the meaning of mental health, redefined here as by the WHO in terms of wellbeing, was understood in a contextually sensitive way. For instance, the importance of an individual's ability to contribute to their community, cope with the normal stressors of life and realize their potential may be universal, but the way in which meaningful contribution to the community is understood will vary. Furthermore, in considering the social determinants of mental health, rather than risk factors, attention is drawn to the potential of safeguarding wellbeing (primary prevention) rather than treating its absence.

### *3.6 Organizational development*

With each activity added to MHAT's service provision as well as the shifts in the ways these services were provided, the organization was responding to a combination of evidence-based treatment plans and emerging needs as identifiedby staff and community

members. Community needs shared by patients or relatives of people with SMI were often much broader than specific symptoms related to mental health illness (such as problems that can be considered subjective and internal) and included issues with basic survival and safety. From the beginning there was attention to the conditions within which individual clients found themselves, particularly through the basic needs support, which was, as mentioned before, intuitive to those working within communities on the ground. Basic provisions of food, water, clothing, shelter, freedom from violence etc. were seen as key prerequisites for any kind of successful treatment. Though this was initially paired with classical psychosocial interventions provided by clinical staff, the gradual expansion of practices continued to emerge organically (figure 1).

Having established the ways in which emerging needs and practices resulted in the coalescing of the current integrated model of MHAT, it is necessary to consider the ways in which these changes in services reflected in the structure and challenges of the organization itself. Three particular aspects of change can be identified: clinics and staffing, training and supervision and the implementation of reflexive monitoring. Each of these factors both resulted from and contributed to the changes in services described above.

### *3.6.1 Clinics and Staffing*

As noted in the description of services, additions to the core staff of MHAT as well as the diversification of staff played a significant role in the development of services. Indeed, this was mutually reinforcing as new services also require more diverse staff members. Though in initial years, recruitment and retention were challenging, the openness of MHAT to different expertise and levels of education may ultimately have played a role in the staff improvements in the rural remote areas of Kerela,as covered in Table 1.

*Table 2. Human resources from 2008 till present.*

| | **2008-2010** | **2011-2013** | **2014-2016** | **2017-2019** | **2020-present** |
|---|---|---|---|---|---|
| **Clinical Staff** | | | | | |
| **Psychiatrists** | 1full time; 1 part time | 1full time; 2 part time | 1full time; 3 part time | 2 full time; 2 part time | 4 full time; 1 part time |
| **Clinical Psychologist** | 0 | 1 full time | 4 full time | 2 full time | 1 full time |

| | | | | | |
|---|---|---|---|---|---|
| **Psychologists** | 1 full time | 3 full time | 3 full time | 4 full time | 4 full time; 3 part time |
| **Psychiatric Social Workers** | 1 full time | 2 full time | 2 full time | 3 full time | 2 full time; 1 part time |
| **Social workers** | 3 full time | 1 full time | 0 | 0 | 5 full time |
| **Occupational therapist** | 0 | 0 | 0 | 0 | 1 part time |
| **Lay Mental Health Workers** | 0 | 3 full time; 3 part time | 5 full time; 4 part time | 5full time; 4 part time | 13 full time; 4 part time |
| Community volunteers | >200 | 200-300 | 400-450 | 500-600 | 750 |
| **Non-clinical staff** | | | | | |
| **Social development** | 0 | 0 | 0 | 0 | 3 full time |
| **Digital transformation** | 0 | 0 | 0 | 3 full time | 1 full time |
| **Administration & Finance** | 0 | 0 | 2 part time | 2 part time | 2 part time |
| **Vehicle operators** | 1 | 2 full time | 2 full time | 1 part time<br>2 full time | 2 full time |
| **Office staff** | 2 full time | 2 full time | 3 full time | 3 full time | 3 full time |
| **In charge of *Mann café*** | | | 1 full time | 1 full time | 1 full time |

*3.6.1.1 Attrition*

However, the changes with the organization did not only result in acquisitions of new staff, clinics and services, but also in attrition of clinics, largely relating to MHAT's target of treating the most socioeconomically disadvantaged individuals exclusively.Of the 84 clinics MHAT was able to set up over the course of 13 years, only two thirds have survived. Of the discontinued clinics, for 70% the reason for discontinuation were either non-acceptance of the MHAT model (37%) or losing interest in continuing in the mental health sphere (33%). Conflicts with the MHAT model occurred, for instance, with disagreements about economic screening, dislike of task sharing or telemedicine, or issues relating to fixed power hierarchies that were challenged by MHAT's approach of increased horizon-

talleadership.This shows that not everyone in the field agrees with the idea of providing this form of comprehensive, integrated care.

*Table 3. Attrition and reasons*

| | |
|---|---|
| Total number of services started (2008-2022) | 84 |
| Currently active | 57 (68%) |
| Stopped functioning | 27 (32%) |
| **Reasons for stopping (for 27 clinics)** | |
| Local partner replacing MHAT with a Psychiatrist to protest against tele psychiatry model | 10 (37%) |
| Partner's lack of interest in mental health area | 09 (33%) |
| Financial & other issues | 02 (7%) |
| Covid-related issues | 06 (22%) |

Attrition presented both a key challenge and a learning opportunity as it was precisely through the difference in outcomes, in spite of the implementation of approaches that were successful in one location but proved unsuccessful in another, that the importance of each clinic's context became apparent. By comparing clinics that were successful and others that did not survive, it was possible to grapple with complex issues emerging between MHAT and its clinics where the diversity of staff also resulted in heterogeneous teams of various kinds (including also a variety of roles and responsibilities), in different clinics. The different norms, power dynamics and language use of different clinics at times resulted in conflict and required the building of trust over time in order to facilitate meaningful dialogue between different units.

Trust and communication are most important when working with community partners and both are inter-dependent. This was illustrated by one of the LMHWs who was a volunteer in a community clinic before she joined MHAT:

> *"As I was a volunteer there, the clinic team found it difficult to accept me as a staff of MHAT. They kept pushing me to continue only in the volunteer role. They were very critical about the MHAT model, particularly task sharing. It became very difficult for me to work there. They would not convey their unhappiness openly to others in MHAT and would deny that they had disagreements when the topic was brought up. They were always finding fault with me and even putting me down in front of clients. Finally, they discontinuedthe MHAT service"*(LMHW, 7 years experience)

In the above situation, it was clear that there was a breakdown of trust and communication leading to attrition. However, a valuable lesson was learnt about the need to be very clear about the MHAT model right at the beginning.

> *"Now we learned a lesson that we need to communicate all these aspects like task sharing, tele-psychiatry, integrated approach and roles and responsibilities. MHAT expectations from local community clinic are very clearly set in the first phase of MHAT service collaboration. This avoids lots of conflicts."* (Senior LMHW, 12 year experience with MHAT.)

Not only is clarity important at the beginning but also later on when new developments take place.

> *"Now we are vigilant for systemic issues. We started to communicate the new activities clearly to local community team, we include local team members to involve in planning and design new developments in MHAT."*(Senior LMHW, 13 years experience in MHAT)

Ultimately that ability to build meaningful and open communication environments formed the basis of those clinics that persisted with MHAT. At present, MHAT operates in 11 of the 14 districts of Kerala.

### *3.6.2 Training and Supervision*

Where MHAT's expansion of services depended strongly on the diversification of staff, this in turn resulted largely from the cost-effectiveness of task-sharing. For task-sharing practices to be effective, investment in staff training and professional development is essential. This resulted in a number of forms of training and supervision programs. Initially this consisted of a clinical training which was centered on diagnosis and psychosocial interventions through weekly case discussions focused on diagnostic clarity and quality of care. Simultaneously, a six-month certification program was established for the training of community volunteers as well as junior social workers and junior psychologists as needed. It consisted of 6 months of classroom training and fieldwork. Variations of training focusing on running occupational day care therapy, group interventions and psychosocial interventions were also conducted. In addition to the training programs, a number of supervisory frameworks were set up. These consisted of individual supervision by clinical psychologists or psychiatric social workers, peer supervision by senior lay mental health workers and group supervision sessions.

Training in psychosocial interventions has been ongoing for a long tome but recently the focus has also been on social development activities.

> *"We have a betterunderstanding ofpsychosocial interventions for clients and families through training and regular weekly field supervisions.NowI am taking part in the supervision group run by our social development team. In that, we discuss more about social welfare aspects and livehood management of community."*(LMHW staff, 6 years experience, MHAT)

For LMHWs, the initial period of training is focussed on assessments.

> *"As a trainee LMHW I had to complete10 psychosocial assessments with patient and families in detail. I conducted homevisits and discovered that people lived in deprived conditions, suffered abuse and struggled with physical illnesses also. I learnt how to make care plans for these patients and how to implement them."*(LMHW staff, 2 years experience, MHAT)

### *3.6.3 Reflexive monitoring*

Concerning the nature of decision making within MHAT, it is clear both from the additions of activities and the continued growth of training and supervision that reflective practice is a core element of the operation of the organization. Bringing in a structured methodology proved essential given the constant change required to sustain community initiatives, which resulted in using the Reflexive Monitoring in Action (RMA) framework (Klaassen, et al., 2020). RMA is "an integrated methodology to encourage learning within multi-actor groups or networks as well as institutional change in order to deal with complex problems". Barriers as well as opportunities are collectively reflected upon by key monitors and changes made so that system innovation becomes possible. The monitoring is not a separate activity but part of the process itself and the insights gathered are acted upon as the project moves forward.

### *3.7 Dealing with complexity*

In operating an organization that recognizes the contextual differences of clinics across such a large region, it stands to reason the MHAT has had to embrace complexity. This embracing is in contrast to more traditional forms of 'managing' complexity that still attempt a prescriptive, problem-solving analysis that does not allow for the non-linearity of systems. The alternative approach, responsiveness to the emerging behavior, also requires a reconfiguration of leadership and decision making. As clinics need to be responsive to their

contexts and foster open communication to function, they cannot be subject to authoritarian or rigid leadership structures. As such, decentralized and empowering approaches to clinic staff is needed, which in itself also requires training and supervision to achieve.

### *3.7.1 Diversity*

Another important aspect to creatively and sustainably respond to complexity, in MHAT, was found to be the diversity of staff. In addition to bringing in information and ideas, it was noted that diverse staff bring in creativity, problem-solving skills and communication strategies that benefit the organization. As a further example, LMHWs from heterogeneous educational and occupational backgrounds helped design more diverse vocational innovations and social networks for their clinics. Finally, the improvements in more community engagement make this a key aspect of MHAT's developments. However, another significant outcome of such diversity is an increase in communication issues relating to language barriers, cultural barriers and different epistemological foundations. For instance, differences in training relating to psychosocial interventions lead to conflict over the management of particular cases. Furthermore, though diverse opinions and ideas were beneficial for innovation, they also slowed down decision making processes. Learning from these emerging challenges, it was established that creating space for dynamic communication and working on a unified vision or set of values for staff is an important aspect of integrating diversity.

### *3.7.2 Technology*

From its inception, MHAT has made use of technological innovations, starting with tele-psychiatry initiatives. In spite of initialresistance from volunteerswithin clinics, it has continued this tendency by trying new directions to improve quality, efficiency andextend human resources wherever possible. This included the use of videos in training, videoconferencing and administration systems. The extension of resources and improvement of training and supervision quality this enables is important to the way MHAT has developed. Notably, the lack of acceptance of telepsychiatry practices did provide a source of conflict and attrition with those in leadership positions in some community clinics, and indeed infrastructure challenges related to network coverage issues in rural clinics did present a challenge. In those instances, telepsychiatry had to be supplemented with more intensive monitoring by LMHWs and community volunteers using home visits. It thus was both a solution for the complexity that wellbeing oriented care brings up (e.g. in the form of requiring more coordination between staff, more integration of multidisciplinary knowledge, etc), but also increased the set of challenges offered to staff members who had to

work with the technology in effective manner. As mentioned by one of the staff employing telepsychiatry:

> *At times, I am working in remote forest areas, where there are several patients who need both psychiatric care and physical illness care. Accessibility of internet or transport is difficult there. We have to visit their homes regularly by walking to monitor the symptoms and other issues for reporting mental health professionals.*" (LMHW, 5 years experience in MHAT)

### *3.7.3 Supervision of lay staff*

The role of task sharing in the success of the model relates largely to scalability and efficiency but also to staff diversity. Rather than relying on limited clinical staff to run interventions, MHAT was able to mobilize resources from the local community which both increases the acceptability of interventions, reduces stigma and increase the embeddedness of the clinic. Yet the difficulty of navigating the severe differences in knowledge, experience and skills did also present challenges of its own. Furthermore, the diverse responsibilities in clinics also lead to a lack of clarity of the role of LMHWs which caused problems relating to interpersonal conflict, disempowerment and the quality of services. Different levels of skills or capability also resulted in a need for more ongoing supervision to help with strength-based compensation. Thus empowerment based supervision emerged as a key factor in successful task sharing.

### *3.7.4 Decentralization*

The final critical factor to deal with the complexity arising from integrated care objectives is in essence the enabler of all the others. Without decision making freedom, the potential of the community workers, diverse staff and technological innovations would remain untapped. By taking a decentralized approach to leadership that allowed self-determination to clinics, MHAT increased its adaptive capacity and enabled it to see and respond to emerging needs in real time. It is thus essential to also consider the synergy between these critical factors, which is done below in Table 3. As with the other critical factors, decentralization was also subject to the necessary challenges. First of all, this approach resulted in conflict with leadership of some community clinics, though this was quickly resolved by the introduction of this model at the beginning of all future partnerships. Furthermore, with the number of community volunteers constantly in flux, in combination with the emphasis of responsibility in the hands of local leaders and volunteers, some instability and inconsistency will inevitably arise. The differences in resources at each clinic, reliance

on local partners and the way the services depend on available expertise will also contribute to this inconsistency. This was one of the motivating factors for the shift in responsibility in the Samagram approach to reduce the reliance on locally established partners and increase the flexibility of community volunteers. Nonetheless, challenges in this area persist and require constant reflection and responsiveness.

> *"The decentralization helped us work closer to the community and to find resources from the community. But decentralization took more timefor decision making and implementation as most of the authorities need several committee discussions before implementation and decision making"* (Psychologist, MHAT).

*Table 4. Key factors for integrated, wellbeing oriented care in remote areas.*

| | Embeddedness | Wellbeing | Complexity |
|---|---|---|---|
| *Diversity* | Increases social connections from different areas and fields | Improving problem solving for contextual issues | Improve interconnectedness and self-organisation |
| *Decentralization* | Local partner ownership<br>Decision making closer to the local level and can thus facilitate local parties | Locally available resources for wellbeing | More interconnected . |
| *Task Sharing* | More ownership | More grassroot level interventions | More use of interconnectedness |
| *Technology* | More accessibility | Improved accessibility and speed of interventions | Fasten interconnections and self organisation |

**Discussion**

This article sought to understand, through the practical study and reporting of a community based mental health organization in Kerala and its evolution towards integrated care, how different mental health approaches can be integrated. In particular, this study focused on the interaction between biopsychosocial factors and community level social determinants, which need not be treated as distinct when operating from a place of social

embeddedness, complexity and wellbeing. Finally, by evaluating this evolution and identifying critical factors and challenges, this study aimed to generate insights for future development of organizations working on community mental health in the transition to well-being-oriented approaches.

The Mental Health Action Trust (MHAT) is a non-governmental organization providing free community mental health care to those of low socioeconomic status in 11 districts of Kerela in India. This study shows how MHAT navigated the challenges to combine mental health care with social development approaches.The activities supporting this integration were reflected in the timeline of the evolution of MHAT's services, a consideration of the direct organizational consequences and an overview of the critical factors that contributed to the integrated approach that is currently applied. Indeed, the particular potential of community mental health for the achievement of more multidimensional approaches that account for instance for health equity or poverty has been noted in previous literature (Castillo et al., 2019; Sylvestre et al. 2018). However, most approaches maintain the distinction of fields, emphasizing the need for collaboration between health and non-health actors and the exchange of expertise, instead of integrating them (Alderwick et al., 2021; Plagerson, 2015). This article takes one step further, arguing that integration through an upwards spiral of complexity, embeddedness and wellbeing is not only possible, but actually quite intuitive to those working on a community level (Castillo et al., 2019).

Wherever MHAT responded to needs emerging from the community as expressed by LMHWs, steps towards an integrated model were taken. These findings suggest that changes in clinical practices through knowledge exchange within empowered community mental health teams may allow for resolution of the challenge of different units of analysis (individual vs. community) in the integration of the two fields. This could be attributed to two different factors: firstly, where the analysis in which the challenge of integration is presented considers traditional mental health services that are run by highly specialized clinical staff trained in individual practices, MHAT recruits LMHWs directly from the community who are both trained in their particular field and more strongly aware of contextual factors given that they are immersed in them themselves. Some aspect might be attributed to a lesser expression of the unproblematized individualism inherent in mental health standards imposed from the global north, given the research setting (Haslam et al., 2021).

The question might then arise why, if MHAT operated at a community level from the beginning, this integrated model could not be implemented from the start, as demonstrated by the ups and downs of the development timeline. This is explained in part by the spiral shape of the final model which notes the need for increased embeddedness

within the community which itself is accomplished only through efforts at approaching wellbeing and complexity. What this primarily demonstrates is the way in which this integration is better achieved from within through responsiveness to emerging needs, rather than imposing it externally. This links to research on the sustainability of mental health systems, which is as of yet an understudied area (WHO, 2020; Lund et al., 2018; Patel et al., 2018). Indeed, the bottom-up emergence of this integration links both to more general findings related to sustainability of interventions, and the particular critical factor of decentralization identified in this process (Moore et al., 2018; Hawe et al., 2009; Trickett, 2009).Concerning the former, it is not surprising that participatory approaches allow for greater community ownership and thus improved acceptance (Reed et al., 2020; Makleff et al., 2020; Oliver et al., 2019; Moore et al., 2018). Concerning the latter, this research established that decentralized approaches, which align with complexity leadership, allow for an awareness of the context specificity of community mental health work.

Decentralization is often primarily seen as a way to increase buy-in and commitment, but it has an equally significant role in increasing awareness of local needs (Ohrling et al., 2021, Balagopal & Kapanee2019). Indeed, it was found in the progression of MHAT's development that what worked well in one clinic was by no means a guaranteefor success in another, resulting in an ongoing comparative analysis that drew attention to the complexity, and in particular non-linearity, of the system. This in turn drew attention to the need to empower LMHWs to engage with that complexity, thus resulting in a further decentralization of power to enable self-determination. Complexity in this context can be understood to follow from the strong interrelatedness between the different problems, causes and effects, and the fragmented and contrasting interests and perceptions that stakeholders have (Coletti& Dotti, 2020).

Central to this question of integration is then the concept of embeddedness, where the responsiveness to the individual contexts of clinics enabled by decentralization was largely enabled by the experiential knowledge and active involvement of lay mental health workers employed at MHAT for longer periods of time. They were allowed to instigate innovation and contextual responsiveness by the complexity-based leadership of the organization. Though embeddedness within organizations and local contexts has been established as an important factor in a variety of fields, the particular potential and knowledge of long-term and experienced community health workers appears to be untapped in current literature, and presents a particularly interesting area for future research(Jia et al., 2019; Schulte et al., 2019; Ferreira, 2017; Taylor, 2011). Nonetheless, without the particular training strategies and open communication employed by the MHAT team, this innovative potential of these LMHWs may not have been realized. Though the role of train-

ing and empowerment for LMHWs is well established, the expansive potential that this has for wider community initiatives has not been covered in mental health research. For instance, research in other fields has established the way empowered workers can extend the empowerment of a community in a way that builds social capital (Badaruddin et al., 2020). Our study confirms this.

Concerning the other critical factors of staff diversity, task sharing, and technology, they were shown to provide both great potential and significant challenges that were experienced as learning opportunities. First of these was staff diversity, which has been shown in research to improve innovation, problem solving and creative thinking within an organization (Stewart &Stewart &Liu, 2022; Madaan, 2021; Farmanesh et al., 2020). However, it also created challenges related to training and supervision of such heterogeneous staff as well as key communication issues that consume time and resources. Indeed, the paradoxical nature of diversity, resilience and the challenge of its complexity is established in other literature (Duchek et al., 2020; Ely & Thomas, 2020; Bunders et al., 2019). Concerning task sharing, the efficiency and scalability of this were coupled with challenges of insecurity and role uncertainty that are well documented in LMHW environments, and in the case described here these challenges were tackled in synergy with decentralization through empowering leadership in line with research (Hoeft et al., 2018;Kazdin, 2019;Bunders at al., 2019). Finally, concerning technology, the capacity MHAT has to extend resources and improve efficiency was somewhat limited by the challenges of working in remote areas, which is a known challenge in low resource environments (Hoeft et al. 2018; Lopez et al., 2019). However, with the inexorable growth and spread of internet connectivity in India, with the passage of years this has become less and less of a problem.

**Strengths and Limitations**

This study presents the first concrete example of the integration of social development and mental health perspectives within one organization. It demonstrates key factors and practical guidance related to how such integration can be carried out, and gives examples of potential challenges along the way. However, given that it is a case study, the findings are not expected to be generalizable. Similarly, the limited sample size limits the ability to account for variation in phenomena. It is possible that an external evaluation of MHAT using mixed-methods research could provide more robust data to guide other organizations with similar aims.

## Conclusion

This research presented the case study of one's organizations evolution towards an integrated model of social development and mental health care over the course of twelve yearsIt used document analysis as well as interviews with key staff members to construct a timeline, consider the changes to the organization and construct a clear model of the integration and the affiliated critical factors that enabled it. It demonstrates the challenges and learning opportunities whereby the organization was able to develop an upwards spiral towards increased wellbeing by grappling with complexity and increasing embeddedness within the communities it serves. . Findings suggest that changes in clinical practices may allow for resolution of the challenge of different units of analysis in the integration of the two fields. MHAT's training strategies and open communication were key to unlocking the potential of lay mental health workers. By leveraging diversity of staff, task-sharing practices, technology and decentralized leadership, this integrated approach became possible, though continued navigation of the challenges affiliated with these factors remains.

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Chapter 9

# Discussion and Conclusion

The current chapter deals with discussing the results of my study, and the various lessons that might be drawn from the individual chapters. I started this thesis with an interest in understanding how community-based health might be organised in a way that is sensitive to the complexity of real life settings in rural Kerala, by adopting a CAS approach. This approach was considered most helpful in dealing with the messiness of organizing mental health care for poor people suffering from SMI, in places that are isolated and remote, and fraught with various organisational, societal and economic challenges, including lack of specialist care, mental health resources, as well as effective coordination. The CAS model was employed to evaluate and explore the reality around MHAT centres in Kerala, which offer a rich empirical and experimental pool of data collection, exactly because it aims to serve the communities in a most efficient and effective manner. The research was set up as to offer solutions to persistent problems in CBMH, such as e.g. issues of collaboration and communication within a system of partners, the knowledge, skills and confidence of LMHWs and how to train or supervise them, as well as the question of incorporate technology. In the following chapter, I will try to address the findings in relation to various research questions in relation also to other studies that work with similar concerns.

## 9.1 Dealing with complexity

The first sub-question that was formulated was:

> *Question 1: What challenges and opportunities arise from the use of complexity theory approaches (like CAS) for the organisation and practice of community clinics and LMHWs?*

The issue of mental health complexity is explored in all of the chapters in this book. Chapter 4 addresses more specifically the question of understanding MHAT as a complex adaptive system and what implications that has for the nature and functioning of the organization. Chapter 5, 6 and also chapter 7 explore the various challenges that are experienced in including LMHWs in various aspects of training and supervision. Chapter 8, finally, addresses the way mental health organizations can work towards integrating social development and biopsychosocial models to address mental wellbeing.

*Complexity of mental wellbeing*

The first key finding relating to this sub-question relates to the particularcomplexityof mental health in terms of the need for integrated approaches. As established in the conceptual framework, much of what we refer to as complexity arises from the fact that mental illness is not a purely medical phenomenon and needs to be understood in the broader term of wellbeing (Khan et al., 2018; Kernich et al., 2018). Throughout this thesis, the complexity of working towards mental wellbeing,as more than the reduction to mental illness alone, is felt, and perhaps one of the most obvious finding of this research is that mental wellbeing is ultimately a practical need, much more than an academic or abstract concept, and ultimately a human right (Monson et al., 2020). It is a need that is most consistently pressed upon organizations that work closely together with communities that are deprived of a range of resources, stability and security, to a degree that employing a more holistic perspective on mental health becomes obvious. This is perceived most clearly in chapters 4 and, particularly, chapter 8, which shows that from the start of MHAT, an intuitive notion of wellbeing was held by staff members as response to the questions posed by communities on these basic livelihood needs. Grassroot workers are usually much more aware of this and are often already working with such holistic models of care, albeit haphazardly (Nanjunda, 2018).

Why I take note of this is, perhaps, because innovation and organizational development should always begin with a vision that is shared by all stakeholders, and that makes for socially robust solutions (e.g. Bunders, Broerse& Keil et al., 2010). Innovations that begin with an urgently felt need have more probability of being successful (Veelen, Regeer&Broerse, et al., 2017), but there is another implication of this thesis' finding, which deals with the science-practice gap often found in the development of (mental) health solutions (Lyon, Comtois& Kerns, 2020). In this specific case, our research shows that perspectives on mental health that work towards wellbeing can be, and should probably be, more firmly rooted in grassroot experiences, for instance through more participatory research. In this thesis, staff members who were working in the communities, and as such could enlighten the

organization with the daily experiences of individuals with severe mental illness, and their relatives and friends, were found to be most properly informed and disposed to understand what mental health services should ideally entail and empowering them helped to create better care (chapter 4).

Complexity in mental health systems that work towards wellbeing takes form in a variety of complex adaptive systems (CAS)in which actors interlink and work together, in a more or less effective manner, as we could see in chapter 4 (e.g. not all MHAT clinics survived due to their irresponsiveness to complex questions of what models to employ, which people to include and train, and how to deal with lack of resources, etc.). An important notion associated with CAS theory is that systems intuitively evolve towards a regime (which could be perceived as involving certain behavioral rules and patterns) that nears the border between chaos and order (Dana et al., 2022). In somewhat other words, guiding organizations towards certain improvements (e.g. towards wellbeing) involves a certain release of control (or allowance of chaos) in order to optimize opportunities for change and adaptation. In my thesis, I found this to be true, in the sense that those MHAT clinics that managed to survive were able to capitalize, both at the macro and at the micro level, on those moments of disruption effectively, by creatively seeking solutions that were embedded in the context. At a macro level, we see that happening in chapter 8, where all the time, clinics build further on relatively ad-hoc (or chaotically) initiated activities (such as e.g. developing some basic livelihood workshops, which then lead to more sustainable vocational training programs), without inhibiting or stagnating such evolutions with the need to over-plan, over-guide, or over-analyze its purpose. In the research on e.g.system innovation, this allowance for grassroot initiatives (or local level innovations), at the edge of chaos, might also be referred to as 'niche experiments', which can then be more diffused throughout an organizational system, if proven to be useful and effective (Schuitmaker-Warnaaret al., 2021). At the same time, in order to sustain workable solutions, efforts need to be made (e.g. in the form of training or financial support) to embed these 'niche experiments' into organizational structures (e.g. Moore, Riddell &Vocisano, 2015). We agree with (Strasser, et al., 2019) who say that one of the strategies to cultivate organizational embedding of niche experiments is to support learning byvarious actors in the system, which can be done through e.g.mentorship and reflexive monitoring principles (e.g. chapter 8).

At a micro level, furthermore, we see that the same 'chaos-principle' to deal with complexity works when e.g. supervisors of LMHWs respond to the opportunities for learning that present themselves in the context of the work itself. Chapter 5-7 show how learning opportunities consistently arose when supervisors were 'leaning into' the practices of their supervisees and forged close relationships to their work challenges. Most useful

lessons were learned, not in the context of a text-book or classroom, but over phone calls and in the messy, chaotic context of the work with patients itself (e.g. the example presented in chapter 5, in which a supervisor helps a LMHW to deal with a patient who is waiting for a consult, etc.). It is in this proximate learning environment that supervisees feel most empowered, because their learning is directly relevant to the context in which they work. Because LMHWs in principle lack formal training (which is costly and takes a long time), it is even more important to ensure that training content is ready at hand and flexibly accessible to work out concrete problems (e.g. Wall et al., 2020). Therefore, as in this thesis was proven useful, putting in place peer support groups who can learn from and guide each other, are often more effective in helping lay workers deal with problems that come up in their work (Wall et al., 2020)

The results of this thesis, I would argue, bring up a need to really understand how to allow for enough 'fruitful' chaos and contextualized, in-depth learning in micro and macro CAS, when, especially within the field of mental health, there is also an evident need for more evidence-based (standardized) knowledge and treatments, as well as guidance on systematic principles of care. Chapter 5 shows that LMHWs are in fact empowered and become better workers when properly informed about certain techniques and strategies for mental health treatment.However, what works perhaps best (as shown in the chapters 5 to 7) if there are opportunities for constant, back-and-forth, learning between various parts of a system, especially between grassroot workers and more specialized mental health specialists. While mental health specialists have a lot of academic know-how and would be able to give guidance towards proper diagnosis and treatment plans, without listening to the grassroot workers a lot of important knowledge on what happens in the communities would get lost. Interestingly, for instance, scholars Faulker& Basset (2012) also point out that there is a need to formalize training and supervision structures (such as e.g. peer groups) without losing an important essence of 'using their own knowledge and expertise to help both themselves and others' (p. 10). This brings the discussion back to the notion of wellbeing, which is, in its essence, subjective and not a static notion. It should be consistently evaluated in close proximity to those who are to be helped with mental health care; in effective dialogue between practice and theory. For instance, when the needs of the community are to build on issues of safety and livelihood security, it really makes little sense to keep providing medicines to cure symptoms of SMI in certain individuals (which was also argued by Chronister et al., 2015; Chernomas, 2014; Espinola et al. ,2022). At the same time, we should not do away with such psychiatric treatments either. The key is to keep moving towards proper integration of the two models, as is aimed for by MHAT clinics and reflected in chapter 8, where complex systems approaches provide the basis for an interconnected understanding of mental health as a context-dependent state of human

experience.Viewed from this perspective over the course of time, the task of MHAT community service gradually broadened from the simple identification of a specific medical condition towards an untangling of the circumstances and exploring how to best improve or maintain wellbeing of people in the community. This shows social development and wellbeing as mutually reinforcing, where improvements in one are echoed in the other, with wellbeing providing psychosocial resources for development and improved development in the community improving the social determinants and access to services that build wellbeing. This significantly furthers potential interaction between the two fields as it also provides the reassurance of a synthesis that safeguards the interests of actors in both fields (Plagerson, 2015).

## Key challenges and solutions for mental health organizations dealing with complexity

*Communication and ideology*

Ideological shifts notwithstanding, the implementation of this form of mental health care has proven to pose serious challenges. In resource-poor settings, mental health care frequently becomes reduced to a limited bio-medical exercise of diagnosis and management with medication (Patel, et al., 2011). Yet the renewed model, which focuses on an integration of social development and mental health, also poses questions for organizational leaders on how to manage the combination of various disciplines in terms of human resources, communication and infrastructure. In chapter 8, it is clear that there were challenges in addressing complexity of wellbeing as meeting basic needs washighly dependent on the involvement of local community leaders and proper team work. It was difficult to sustain everyone's motivation in meeting basic needs in a sustainable way as it is a complex adaptive system, the unexpected communication issues and conflicts were regular, which affected meeting the wellbeing needs of patients.In chapter 4, for instance, certain uncertainties among managers regarding services led to unsuccessful take up of initiatives for social development sometimes, depending highly on the attitude and traits of the leaders involved. The basic needs of clients are met only if leaders are also buying into the vision. In some cases, leaders were mostly interested in helping the rural communities through free medicine supply and occasional food kit supplies. A lesson learned from this was that it is important to have sufficient dialogue and awareness rising, also as part of the organizational development, in order to steer towards wellbeing approaches.

The psychosocial intervention approach also resulted in other forms of conflict as both the uptake of the shift in approach was met with resistance by agents in different clinics, and challenges emerged in interaction between trained and not-trained agents. This links

to how changes in the structure of a system and its power dynamics can create instability for a time, where even small changes in roles or knowledge can have far reaching effects. This means that the emerging patterns of behaviour within the system and thus the individual behaviour of agents can be affected, in this case through increasing interpersonal conflict. This was often resolved through collaborative communication strategies such as one on one discussion about targeted problems, or broader co-creation of protocols and expectations. This process might also be linked to the ideas of reciprocal learning and shared-sense making that has been found to ease adaptation within organizations (Braithwaite et al., 2021; Penney et al., 2018; Finley, et al., 2018).

*Organizational complexity and diversity*

On the macro scale of organizing care focused on wellbeing, it is noted that an increasing diversity of agents is required, such that LMHWs and their supervisors must navigate a heterogeneous environment. Challenges can arise from this environment as shown in some way in each of the articles, as differences in ability, age, gender, experience etc. impacted knowledge delivery in training and supervision and impacted interpersonal communication. Previous research has outlined the difficulty of balancing the recognition of prior learning, respect, relevancy of content and continuous learning in training of LMHWs, which was noted in this research as well (Jennings, 2021; Baharudin et al., 2013; MacKeracher, Suart& Potter, 2006). Concerning interpersonal communication, this research suggests that the parallel action of agents and responsiveness in the form of feedback loops and self-organization can result in increasingly surprising outcomes. In that sense this research demonstrates a practical example of emergent patterns of behavior covered in theoretical literature on complex adaptive systems (Roundy et al., 2018). Notably, diversity also added perspectives that contribute to problem solving and quality work, which is particularly significant given that LMHWs performance will change over time and be influenced by each other as agents in the same system (McDaniel & Walls, 1997; Khan &Krishnan, 2021; Burrows et al., 2020). It is essential to balance these challenges and opportunities as the diversity of MHAT and similar organizations will only increase as more diverse factors of mental health and development are taken on board. In this research, strength-based supervision was used to encourage adaptive behavior as well as mutual learning. Though strength-based supervision is a known technique (Newman, 2019), its relationship to increasing organizational complexity, the balancing of heterogenous expertise and the self-organization of the system provides new directions for consideration.

*MHAT Community Mental Health Service as a Complex Adaptive system*

Chapter 4 presents the most complete application of the Complex Adaptive Systems framework in this research, which shows the relevance of viewing the organization as possessing the five characteristics of a CAS (diverse agents, nonlinear interdependencies, self-organization and coevolution) which is in line with numerous studies on healthcare organizations as CAS (Holden et al., 2021; Ala & Chen, 2022; Fried &Robinaugh, 2020; Khan et al., 2018). Most interestingly, this research was not only able to establish the origins of these dynamics in the interdependence between MHAT and the local community, the significance of social engagement and the interplay between internal and external factors, it also provided a frame with which to understand the major challenges faced by the organization and how to move forwards on the basis of this information. Four key problems were identified relating to the unpredictable emergence and behavior of the different clinics, including nonlinear responses to organizational changes, resistance to innovations and differences in leadership and hierarchy resulting in different internalized rules. This was framed within the understanding that the self-organization and coevolution of systems can either facilitate desired functioning, or do quite the opposite (Kavanagh et al., 2020; Hodiamont et al., 2019). In understanding these properties, the primary practical outcome of this analysis is to recognize the need to move away from reductionist problem-solving to instead expect and address non-linear outcomes, and to respond reflexively, rather than by exerting explicit control.

## 9.2 Empowering LMHWs

Now that we have explored the organization and practice of community mental health work from a complexity perspective, it becomes relevant to zoom in on LMHWs and the way in which their role in the complex adaptivemental health care system can be understood and supported. The second sub-question this thesis addresses is:

> *Question 2: How can LMHWs are empowered to productively self-organize and interact with other actors in the complex adaptive system of mental health in mutually beneficial ways?*

As noted in regards to the first question, it was shown,through the theoretical frame of the thesis and analysis of complexity in chapter 4, that there is a need for complexity leadership in order to shift self-organization within the system and strengthen desirable outcomes. With an emphasis on interrelationships, complexity leadership understands the guidance of a system to be the result of a complex interaction of multiple interacting agents. This is especially significant in addressing complex healthcare issues as these are

areas in which there is low certainty or consensus, requiring distributed leadership and learning adaptability. As such, the ability of LMHWs to situate themselves as complexity leaders is essential, which requires them to be sufficiently empowered to self-organize and take decisive action where necessary. For this reason, chapters 5, 6 and 7 focused on the way training and supervision can enable the empowerment of LMHWs through for instance increasing self-efficacy. Key challenges to this process as well as their resolution and the ultimate outcomes of this process are discussed below, starting with challenges relating to personal capabilities, interpersonal dynamics, and group or organizational dynamics.

*Situational Challenges*

Situational challenges relate to the broad spectrum of circumstances that can hamper adult trainee's ability to access and pursue learning opportunities (MacKeracher, Suart& Potter, 2006). In this research, a key example of this related to the sociocultural situations noted by Habibah, in this case the situation of working women in India, where chapter 5 it was noted that the majority of LMHWs are women from rural, low resource backgrounds who are thus also primary caregivers and hampered by household tasks. As such, LMHWs are faced with challenges relating to competing demands as well as insecurity arising from their position in society. Concerning the former, this impacts quality of care and functioning within the organization as LMHWs then canceled appointments sporadically or took unplanned leave which they did not communicate fully. This lack of communication might also be attributed in part to the insecurity that arises from their lower educational and work experience and the way their voice is less acknowledged than their male colleagues and family members, such that they feel a lack of control. This lack of control and insecurity leads to issues with their perceived legitimacy and impact within the organization, such that they felt that their leaves were inconsequential. This was dealt with within the organization through for instance peer supervision in chapter 6, where working with more senior LMHWs helped to improve their competences and see their own impact with their clients as well as connecting them better to the community to help them claim a position of respect. The impact of this more broadly was an increase in self-efficacy, or the feeling that they have the ability to control their circumstances and take decisions, which combatted the baseline of disempowerment they worked from. This demonstrates the importance of awareness of the local context and social dynamics within training and supervision of LMHWs in order to respond to the particular needs and challenges arising from it. Though the importance of context-responsive strategies in low resource communities (Hawkins et al., 2017; Holland-Hart et al., 2019; Rajbangshi et al., 2021) and concerning challenges around gender and work (Jennings, 2021; Habibah, 2006; Flannery & Hayes, 200) is well established, the role of these factors in designing programs for LMHWs is covered rarely,

if at all (see for instance Chor et al., 2020). Finally, the nature of situational challenges also demonstrated the way that within complexity, no challenge can be seen as wholly separate from others as the insecurity arising from the situational context also related to personal capabilities (skills/impact) and interpersonal issues (respect from male colleagues). Similar interaction between elements will be demonstrated in the other challenges.

*Personal Capability*

Given their diverse backgrounds, LMHWs enter into training with diverse educational backgrounds and differential exposure to the concepts related to mental health and community health work. Moreover, they experiencea lack of confidencein their knowledge, a lack of clarity on their specific role in the organization, dispositional barriers, poor exposure to technology and learning differences. For instance, in regards to the training it was found that low self-esteem and negative attitudes, in terms of disposition, resulted in problems engaging with the course material and thus less improvement in outcomes than might otherwise have been achieved. This is consistent with previous research on dispositional challenges in training (Jennings, 2021; Baharudin et al., 2013; MacKeracher, Suart& Potter, 2006). Similarly, differences in learning abilities related to critical thinking skills, writing barriers and difficulty grasping abstract concepts, which might be linked back to situational barriers around education, maintained existing insecurities and made it difficult for participants to see their immediate impact through the training. Indeed, the role of pervasive insecurity in supervision in chapter 7 was profound as participants were afraid to be found incompetent and thus struggle to gain benefits of building skills and seeing their increased impact in their limited engagement with the group. Their perceived unimportance was also seen in chapter 6 to result in the aforementioned issues around reporting leave, fixing agendas and general documentation. The findings demonstrated that in combination, the training, peer support and strength-based supervision were able to address a substantial portion of these issues. For instance, all participants in the training outlined in chapter 5 experienced significant increases in different knowledge, attitude and practice outcomes. This was supplemented in the supervision of chapters 6 and 7 with supervisor's emphasis on evidence-based practice, for instance through explanations of the rationale behind certain activities. Furthermore, strength-based supervision approaches were shown to be very beneficial for learning differences for instance, as supervisors could help LMHWs determine how to compensate for their challenges using their existing strengths. Similarly, by discussing individual cases and strengths, participants in supervision were also able to learn from their peer's experiences. By working from a baseline of empowerment, self-efficacy and complexity supervisors were also able to encourage participants to respond dynamically to new challenges without needing prescriptive

guidelines for action. Though studies on empowerment based supervision (McQuaid et al., 2018) and self-efficacy (Burke et al., 2019;Ameen, 2019; Ardabili, 2020) are well established, no studies relating to task-sharing or LMHWs were identified. This is concerning as the rising complexity requires empowered agents capable of independent action, where building confidence through self-efficacy and competence building is essential to that end.

*Interpersonal Dynamics*

Within a system, no agent acts in isolation and most emergent or self-organizing behavior arises through interaction. This is also apparent in the challenges experienced by LMHWs where, across the articles, interpersonal conflict arose consistently in the form of passive aggression, lack of assertiveness, difficulty maintaining professional boundaries, lack of respect and poor communication. For instance, in chapter 6, a lack of assertiveness was shown in an inability to ask others for help, to set limits within the work place and deal with negative feedback. Beyond personal discomfort, interpersonal conflicts also had consequences for quality of care, given that some conflicts were with clients or their families, and lead to further challenges in developing competences and experiencing empowerment as LMHWs. For instance, lack of communication with the family of a client will impact the ability to carry out a psychosocial intervention and thus strengthen feelings of insecurity and a lack of impact. The resolution for this issue is related to the findings early in chapter 7 that a baseline of trust through the creation of a safe environment for sharing experiences allows for peer support. Similarly in the peer supervision program, the connection peers provided to the community and the guidance they provided on interaction and communication with clients and their families had a significant impact on participants. Furthermore, the very act of encouraging reflection and discussion through the design and evaluation of the training also provided a space in which the emotionally charged responses of agents could be understood. Furthermore, the strength-based approach also helped contribute to openness and a willingness to learn as participants began to share their experiences and were able to learn from failure as well as success. This vulnerability enables a type of support that is not otherwise possible. To the author's knowledge there are no previous studies on peer supervision among LMHWs, though the nature and resolution of workplace conflicts are well studied among other health professionals (Fernbacher, 2021; Grover, et al., 2021). But no studies were reported specifically on LMHWs. Productive interaction and self-organization might thus be seen to require active effort not to prevent or control interaction, but rather to create spaces of learning with sufficient safety and trust for knowledge exchange, reciprocal learning and collaboration.

*Organizational Dynamics*

From the Complex Adaptive Systems perspective, the self-organization of agents in response to internal and external stimuli is inherent and unavoidable and not always uniformly beneficial. Hence, it can be understood that LMHWs will experience certain challenges relating to wider trends in the organization as it co-evolves in unpredictable ways. For instance, with the shift towards task-sharing, existing hierarchies and structures are brought into question leading to uncertainty and thus also passive aggression between different agents in MHAT. Similarly, sets of internalized rules emerging to deal with particular challenges in some of the clinics and differences in training or background in psychosocial interventions created tension. This challenge, being on the macro scale also requires macro level responses relating to tapping into talents of the diverse human resources, identifying synergies and developing common regulations without becoming too rigid to address the diverse lifestyles, needs and work styles of employees. This relates to further literature on the question of organizational empowerment, where the structures and policies of an organization can influence individual agents in their communication skills that enable their development of self-determination (Peterson & Zimmerman, 2004). Given the significance of the current organizational transitions in shifting towards well-being-based approaches and task-sharing, it is unsurprising that insecurity and conflict might emerge from these larger trends as well. However, as seen in regards to the other challenges, through targeted and dynamic input, knowledge, attitudes and practices can be strengthened towards desirable outputs for instance through shaping safe environments for communication that allow peers to exchange knowledge and become more empowered to build towards complexity leadership.

### 9.3 Training, supervision and practices of LMHW

Finally we will discuss the training, supervisionand practices of LMHWs and how under the influence of complexity these can be continuously be adapted. The third sub-question this thesis addresses is:

> *Question 3: How can training, supervision and practices of LMHW be continuously adapted through best practices and technology, without compromising the richness of complexity and community engagement?*

This third research question, is considered in chapters 5,6, and 7 through the co-production of development of training program and supervision, implementation of class room and field work training, peer supervisions and Tele Mental Health Group Supervisions within CAS, MHAT. The ways in which MHAT functions as a complex adaptive system, is

considered in chapter 4, where the challenges experienced by LMHWs in various aspects of implementation of community mental health is discussed. After considering the coproduction development of training and supervision programs of LMHWs, how technology is an effective way to extend limited human resources into community and how case –by case flexibility and adaptation can develop through all kinds of supervision It concludes by with a consideration of how MHAT as a Complex Adaptive Systems, adapt with best practices and technology, without compromising the richness of complexity and community engagement.

*Training and co-production*

Through chapter 5, this research found that the training and supervision for LMHWs on psychosocial interventions packages for severe mental illnesses are best developed through a co-productive method, which were approached through the stages framework for prototyping and evaluating health interventions proposed by Hawkins et al., (2017). However, approaching training from a coproduction perspective also resulted in key challenges related to power conflicts among agents, different internalized perceptions of MHAT and time constraints of human resources. As such, it was found that one of the first tasks of any co-production program should be the establishing of common values between the agents involved. Through this process, the existing knowledge of agents involved in MHAT was leveraged to improve feasibility, acceptability and quality of the supervision within the implementation context of the complex adaptive system. Though previous research has covered key challenges of coproduction in a CAS, this is the first known attempt for LMHWs with the added dimension of a focus on psychosocial interventions (Reed et al., 2020; Oliver et al., 2019; Moore et al., 2018).

*Technological potential*

As was indicated in chapter 5-7 we found that the training and supervision are major component in dealing with complexity and given the limited resources and the capacity-extending capabilities of technology it follows that this is a key consideration of this research.Diverse forms of technology are applied across chapters 5-7 in training and supervision, for instance: supervisory calls; video presentations of symptoms; role-play using video recording for feedback; online supervision groups; video conferencing and email. Though a part of this might simply be attributed to the increasing presence of technology generally and its integration into most forms of training and supervision (Miller et al., 2019), certain benefits to specific applications were also identified. For example, training sessions became more engaging, it became possible for trainees to ask for support dur-

ing fieldwork and receive immediate feedback and the ability to upload presentations and group notes. In recent years there has been a rush of research on technology in medical training, nursing and also in task shared environments. For instance, numerous pilots of training for nurses and clinicians have made use of simulations and video modules, though conclusions about increased confidence as the target outcome or clinical skill development were subject to limitations (Raynor et al., 2021; Stone et al., 2020). Furthermore, specific interventions for LMHWs are also common, for instance in the case of a pilot digital training module for the treatment of depression in rural India (Muke et al., 2019). However, Raviola et al. (2019) have noted in their review of such interventions that certain skepticism is associated with their sustainability as most are donor driven and do not elaborate on the mechanisms of effect, such that the rise of a new form of technology often involves reinventing the wheel. Within this context, the focus on empowerment related supervision through use of technology to extend limited resources using embedded practices of MHAT itself provides an example of alternatives.

*Empowerment online*

Concerning supervision in particular, one of the most interesting findings of the thesis was that both Empowering Supervisory Group (ESG) (chapter 7) and Tele Peer supervision(chapter 6) did justice to interconnectedness and community embeddedness, which is surprising given the potential risks in the loss of face-to-face interaction in a ICT setting. MHAT demonstrated that complexity-based supervision is possible online, though it requires continuous responsiveness from supervisors. In chapter 7, it is found that Empowering Supervisory Group (ESG) with the help of technology can empower LMHWs and improve reciprocity among agents in the system. Using the empowerment model of clinical supervision it was possible to trace the way in which the supervisor's responsiveness to developments over time allowed for the co-evolution of the group dynamics to the point at which they were taking independent action in shaping the organization. For instance, by focusing on a strengths-based approach for supervisees, experience sharing was encouraged and enabled the participants to identify shared issues and prepare an approach to advocacy. Where most research on LMHWs capacities focuses on task sharing (Naslund et al., 2019; Muke et al., 2019), only a limited number of preliminary studies address empowerment of LMHWs (Kane et al., 2016; D'arcy., et al., 2018) and only one other study on LMHWs empowerment through technology was identified but remained limited to the analysis of the initial technology development (Patterson et al., 2020). As such, this study presents a major contribution to these initial works by demonstrating practical evidence that technology can be used for empowering supervision in low resources settings. This is especially significant given the lack of tradeoffs related to complexity and the poten-

tial of eHealth and telemedicine for overcoming geographic and resource limitations in access to care, as well as recent research on the need for the embedding of such interventions in local infrastructures and in consideration of scalability, sustainability and local contexts (Clifford,et al., 2022).

*Supervision and flexibility*

From the combination of these distinct findings, it can be noted that the implementation of training and supervision required intensive flexibility and adaptation. Indeed, as global systems become more complex to adapt to the growing and expanding social needs and technological expansions of the population, flexibility becomes one of the strongest advantages to navigate interdependence and nonlinear outcomes. Flexibility induces increased or new interactions among systems or system components, which was seen in this research when the supervisor's adjustments encouraged participants' self-determination and resulted in emergent behavior (Grasset al., 2020). However, flexibility does not necessarily exist naturally within a system, as seen in for instance rigid hierarchies and leadership styles that resulted in an inability to adjust to external stimuli (Grass et al., 2020). This corroborates the point that the flexibility of a system is derivative of underlying variables, which means it is important to calibrate flexibility during design phases to ensure that the created flexibility is executable and will produce the anticipated benefits (Dumas & Beinecke 2018). In this research, that calibration was seen in the constant adjustment during the Empowering Supervisory Group (ESG) in chapter 7.Three phases of different forms of supervision were identified retrospectively during the supervision process, where the supervisor's responsiveness to the changing needs of the group and emphasis on different aspects of empowerment lead to significantly improved outcomes. For instance, where insecurities, power dynamics and discomfort with technology caused mistrust and interpersonal conflict initially, focusing on building trust through individual conversations, establishing guidelines and a strength-based approach from the supervisor resulted in an improved state, which allowed the second phase to focus more on competence and experience sharing. In this way the realization of flexibility did notlimit but rather increasedthe development of competences to diagnose and develop care plans in a context sensitive way. Finally, when participants had been encouraged to share their experiences and take active ownership over decision making processes, the final phase involved far more independent action on their part. Chapter 7 showed in particular the ways in which different aspects of empowerment are mutually constitutive and form a cycle of improvement when leveraged in response to the needs expressed by supervisees. This form of responsive supervision proved appropriate in this study, however questions about the scalability of this approach have yet to be addressed.

*Social Development and Technology*

As a final point it is worth noting the way the use of technology links to findings within social development research on building capacity in local communities, which was also discussed in chapter 8. Use of mobile phones was linked to coalitions and networking in order to build the capacity of people to participate in local community development which is particularly important when considering the difficulty that marginalized groups such as those suffering from mental illness have in participation. Indeed, fostering greater social cohesion and community accountability could have numerous benefits for the target population ofthis study and is a potential area for future consideration (Suryadi et al., 2021; Triantafyllidou&Zabaniotou, 2021).

## 9.4 **Implications**

Concerns about addressing challenges in LMHWs training and supervision for providing good quality service for mental health and wellbeing of the community were at the heart of this thesis. All chapters were geared towards immediate practical application; it was aimed to include recommendations for practice in most chapters. Here the implications of the studies included in the thesis.

*Training and supervision*

A central practical guide of this study relates to the way the findings support the planning, delivery, and evaluation of future training and supervisions for LMHWs in task shared complex adaptive systems. In addition to guiding particular actions, taking on this perspective has benefits for the general functioning of organizations as well as effects on community and individual wellbeing. In particular, conclusions can be drawn regarding the development and set up of training and supervision, and the use of technology.

Regarding the design of training and supervision programs, it is noted in this study that this process should be participatory, where relevant bodies can evaluate and contribute to the development in order to increase buy-in and support. For the preparation of such programs however, internal capacity building is needed as supervisors and trainers must be trained themselves in order to build approaches that facilitate empowerment. Supervisors are also expected to participate in their own clinical supervision (O'Shea et al., 2019) to cope with complexity. Furthermore, while it may be counterintuitive in a setting of supervision, it is important to emphasize the nature of horizontal leadership for all members in an organization as this both prevents conflict relating to power dynamics or insecurity and helps to emphasize the key importance of each member, including LMHWs. Ongoing

monitoring of the trainers and supervisors to verify the quality and frequency of interaction should also be considered and isfor the reassurance of supervisees. Finally, programs should make use of the resource optimizing potential of technology, though this should not be done indiscriminately but in due consideration of how it contributes to or effects the empowerment of supervisees.

*Complexity*

Concerning the application of the overall framework of this thesis, key implications for education and practice are explained. Firstly, trainers and educators could make use of this practical application of such theoretical approaches to better understand and teach core competencies in dealing with complexity. This involves for instance understanding the way competences are rooted in interaction and thus are not acquired only at an individual level, but need to be explained and built within a team. Indeed, within complexity theory the importance of supplementing individual professional training with team training has been well established in the literature and operationalized in complex training models.

Secondly, team leaders and managers may try to frame team drivers, shared aims, and shared focus within the CAS framework. For instance, expressing professional behavior as a result of internalized basic rules or attractors might facilitate team communication and conflict resolution. In addition, our study illustrates how team attractors can modulate behavior, indicating the importance of identifying and exploring them during team training. When trying to induce change at a systems level, often emphasis is placed on overcoming barriers. As demonstrated by our data and other studies, complexity theory suggests that endorsing existent or installing new attractors would be more efficient. In a review of workplace learning during collaborative practice in primary care, possible attractors (e.g. the willingness to learn from one another triggers open communication and respect for the other's viewpoint) were identified that could provide inspiration for team training (Mertens et al., 2018).

Thirdly, since workplace learning is a substantial element of continuous professional development, team leaders and managers must create conditions that facilitate learning as emergent new behavior. These results need to be confirmed in other contexts in the future. Further investigation should be conducted on the overlap and potential conflicts we noticed between CAS principles of team members acting autonomously guided by internalized basic rules, where team attractors sometimes override individual internalized basic rules or shape the team's functioning. As overriding aspects of one's professional identity might lead to moral distress and professional dysfunction, the motivation

to do so should be investigated, as well as the effects of these conflicts on the professional well-being of healthcare providers.

As lay health workers are an increasingly important component of health systems and programs especially in resource poor settings. Despite the recognized role of training and supervision in ensuring are effective, supervision is often weak and under-supported due to various practical reasons. One of the findings of this study was about what constitutes adequate training and supervision and how different supervision strategies influence performance, self efficacy, ability to cope with complexity and empowerment with the help of technology. Other findings were about coping with complexity is building the capacity, in agents involved in the system to adapt continuously and learn speedily, in order to maximize the chances of opportunities of growth and innovations. Digital technology also used as a medium to cope with complexity.

*Policy*

Integration of LMHWs' training and supervision with health systems requires their inclusion into public policies, including those related to national human resources for health planning, governance, legal frameworks, and financing for health services. The requisite inputs of human and financial resources should be factored in at planning and budgeting stages and should be reflected in national health workforce and health sector strategies. Policy dialogue about creating a strong role for LMHWs in health systems must also address human and labor rights issues surrounding, the favorable consequences of employment of large numbers of LMHWs for economic growth and social development, as well as for achieving the Sustainable Development Goals.

## 9.5 Validity

*Internal Validity*

Concerning internal validity, this section reflects on the role of the researcher and the implications of potential bias based on their background and characteristics. The presence of the researcher – senior clinical psychologist at MHAT– presented a potential threat to internal validity, since it could result in participants withholding more personal stories, or could result in socially desirable answers. However, having a researcher integrated within the organization was also seen as an advantage in that the researcher was familiar and trusted and had a greater contextual knowledge by being embedded within the organization. This further enabled prolonged involvement of the researcher in the study environ-

ment which further reduces the threat of reactivity and respondent bias. A number of further strategies were employed to strengthen the internal validity of the research. Firstly, triangulation was employed in theory, methods and data collection tools, where the mixed methods approach used numerous instruments of data collection and compared multiple theories and perspectives that drew on different fields of study. Secondly, this research made use of peer debriefing where findings were presented and discussed at various stages in the research, both within and outside of the organization, allowing valuable opportunities for feedback and criticism. This added perspective helps to reduce researcher bias. Thirdly, member checking was done to reduce the risk of reactivity, respondent bias and researcher bias. Checking with respondents to verify interpretations or themes identified in the data helps to control the influence of the researcher's assumptions (Curtin &Fossey, 2007). This can take the form of either validation interviews, which allow for the identification of outliers, or the sending of interview transcripts (Motulsky, 2021 ; McGrath et al., 2018). Finally, this research made use of negative case analysis, where data from a single participant that does not match emerging patterns is studied to understand the source of the discrepancy. Though it is tempting to treat them as outliers, and thus disregard them, this way of analyzing negative cases, in addition to member checks, helps to reduce researcher bias. This also made a part of the 'audit trail' of research related records including raw interview and journal data, audio-recordings, code books and researchers notes.

*External Validity*

The external validity of this research is significantly limited by the small sample size, use of purposive sampling and focus on a single organization. Purposive sampling is non-probability sampling techniques that reduce the generalizability of the research findings and increase the likelihood of selection bias. The small sample size could also present a limitation to the generalizability of these research findings to the population under study. Given these issues it is known that these research findings can notaccount for the full field and variation of the phenomenon under investigation (Vasileiou et al., 2018). That being said, given the highly contextextualized nature of LMHW training and supervision programs, it was established at the outset of this research that this thesis would not aim to establish generalizable best practices or guidelines, but rather attempt to map the landscape under consideration and draw attention to aspects that have received limited attention in order to help inform researchers, practitioners and policy makers. The literature used for the analysis of these aspects was identified with an eye on inclusion and diversity, though some eligible studies on training and supervision of LMHWs may inadvertently have been missed.

## 9.6 Future Research

Considering the shortage of empirical studies in the field of complexity in task-shared community mental health in a low-resource setting like India, the scope for future research is considerable and multi-faceted. Building on the more exploratory mapping processes of this thesis, future works could consider expanding on or verifying aspects related both to the theoretical application of complexity theory and social development and the more practical aspects of training and supervision of LMHWs. For instance, exploration of the ways in which wellbeing oriented interventions such as those of MHAT affect the community and how non-linear outcomes can be traced, in order to provide evidence and support for primary prevention. This could for instance be supplemented by ethnographic research on the positive effects of community acceptance, wellbeing and early identification of mental illness. Furthermore, concerning complexity, further steps could involve questions relating to feedback loops in relation to intervention outcomes. Similarly reviews that consider the interaction of different intervention components might bring new perspectives to the study of community health. Finally concerning studies on training and supervision, further work including participant input in program design, or otherwise explicitly participatory research on training and supervision as well as the more generalizable concern of developing general protocols based on more diverse locations would be beneficial. It is also important to consider sociocultural sensitivities in the design of an ongoing training intervention, including cultural beliefs, especially in areas where the practice of traditional medicine is still common place and may be at odds with a more Western approach to healthcare. Enhancing the scope of cross disciplinary engagement in training, research and clinical programmes should be considered in future. This is especially relevant when ongoing training programmes are being designed and implemented by non-native researchers, in countries emerging from postcolonial pasts and where local beliefs are rooted in historical antecedents.

Furthermore, studies with emphasis on the needs of vulnerable populations in relation to self-efficacy, empowerment, complexity and wellbeing from interdisciplinary perspectives are needed as well as more studies that like theresearch of this thesis focus specifically on theneed to find ways to combine a contextualized, wellbeing focused perspective with a specialist perspective.

## 9.7 Conclusion

Having discussed the answers to sub-questions and their relation to the main question, and current academic discourse, as well as implications, validity and future research in the previous sections, this section goes on to cover final conclusions. The totality of this the-

sis pertained to the importance of complexity experienced by LMHWs conducting well-being-oriented community mental health interventions in low resource settings in India. In addressing this topic, it covers both practical questions of types of complexity particular to the Indian context, and the more theoretical questions of applying complex systems analysis and integrating social development in mental health care.This thesis points to the need that in order to meet the practical needs arising from communities and the LMHWs that serve them, approaches need to be reconfigured to accommodate not only the full scope of the pursuit of wellbeing, but how that pursuit must include a dialogue between more prescriptive structuring and attention to the constantly evolving realities emerging from within health organizations. Where more holistic approaches to mental wellbeing are essential to tackle emerging problems in global mental health, they also create unique challenges for LMHWs relating to their shifting roles, such that they must be empowered through training and supervision to become complexity leaders, capable of making context-responsive, independent decisions. Operationalizing this process through use of theoretical models related to empowerment and self-efficacy proved effective.

Tensions and conflict arising within the process from the way these external and internal stimuli affect the system appear to be mitigated by a deepening of interconnection through for instance the experience sharing that is facilitated by peer support.The research on which this thesis is based shows that many of thechallenges within the organization can be attributed to the ways in which different agents in the system are responding to transitions with insecurity such that emergent behavior is negative. Yet, those challenges also indicate the directions for growth as targeted and dynamic input can shift the self-organization of the organization into new directions. Finally, this research demonstrates that LMHWs can be empowered to productively self-organize and interact with other actors in the complex adaptive system of mental health in mutually beneficial ways.This was accomplished through visible changes in knowledge, attitude and practices in training as well as increasing self-efficacy through peer supervision and online supervision that enabled self-determination through flexible, strength-based supervision.Technology proved an effective way to extend limited human resources. Working with complex systems requires case-by-case flexibility and constant adaptation not just for mental health interventions but also for supervision.Support of LMHWs must be iterative in nature and leverage the potential of technology to extend limited resources.

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The Complex Adaptive System (CAS) model was employed to evaluate and explore the reality around Mental Health Action Trust (MHAT) community clinics in Kerala, which offer a rich empirical and experimental pool of data collection, exactly because it aims to serve the communities in a most efficient and effective manner. The research was set up as to offer solutions to persistent problems in CBMH, such as e.g. issues of collaboration and communication within a system of partners, the knowledge, skills and confidence of Lay Mental Health Workers(LMHWs) and how to train or supervise them, as well as the question of incorporate technology. The totality of this thesis pertained to the importance of complexity experienced by LMHWs conducting wellbeing-oriented community mental health interventions in low resource settings in India.