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State and non-state mental health service collaboration in a South African district: a mixed methods study

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Abstract

The Life Esidimeni tragedy in South Africa showed that, despite significant global gains in recognizing the salience of integrated public mental health care during the past decade, crucial gaps remain. State and non-state mental health service collaboration is a recognized strategy to increase access to care and optimal use of community resources, but little evidence exist about how it unfolds in low-to middle-income countries. South Africa's Mental Health Policy Framework and Strategic Plan 2013-20 (MHPF) underlines the importance of collaborative public mental health care, though it is unclear how and to what extent this happens. The aim of the study was to explore the extent and nature of state and non-state mental health service collaboration in the Mangaung Metropolitan District, Free State, South Africa. The research involved an equal status, sequential mixed methods design, comprised of social network analysis (SNA) and semi-structured interviews. SNA-structured interviews were conducted with collaborating state and non-state mental health service providers. Semistructured interviews were conducted with collaborating partners and key stake holders. Descriptive network analyses of the SNA data were performed with Gephi, and thematic analysis of the semistructured interview data were performed in NVivo. SNA results suggested a fragmented, hospital centric network, with low average density and clustering, and high authority and influence of a specialist psychiatric hospital. Several different types of collaborative interactions emerged, of which housing and treatment adherence a key point of collaboration. Proportional interactions between state and non-state services were low. Qualitative data expanded on these findings, highlighting the range of available mental health services, and pointed to power dynamics as an important consideration in the mental health service network. The fostering of a well-integrated system of care as proposed in the MHPF requires inter-institutional arrangements that include both clinical and social facets of care, and improvements in local governance.

Keywords: Mental health services, integration, public/private, health services research, networks

Key Messages

- Significant global shifts towards equitable and comprehensive mental health services has been made.
- The importance of non-state service providers are increasingly recognized as key partners in public mental health care
 provisioning.
- Despite its primacy in key South African policy documents, district-level state and non-state mental health service collaboration seems to be hospital-centric, weak, fragmented and underwritten by an apparent split between biomedical and social services.
- Comprehensive, holistic and equitable public mental health care requires strong engagement between state and nonstate sectors.

Introduction

Major global investment has been made in public mental health service improvement during the past decade, exemplified by the World Health Organization (WHO) Mental Health Action Plan; the Movement for Global Mental Health; an increase in research investment (highlighted in several dedicated series in prestigious journals); and the inclusion of mental health as a priority under Sustainable Development Goal 3.4 (Horton 2007; Tomlinson et al. 2009; Collins et al. 2011; Patel et al. 2011; Patel and Saxena 2014; Thornicroft and Patel 2014). The South African mental health community took advantage of the global mental health movement (Patel et al. 2011) by producing a comprehensive national mental health policy in 2012. The Mental Health Policy Framework and Strategic Plan 2013-20 (MHPF) (South African National Department of Health 2013) is a comprehensive and ambitious document, focussing in broad strokes on improving mental health service delivery on primary, secondary and tertiary levels of the public health system. In step with post-apartheid legislation and health policy approaches, it re-affirms the responsibility of the state to provide public mental health services (section 8). Important steps have recently been taken towards integrating mental health care into the primary health care (PHC) system through a task-shifting approach (Petersen and Lund 2011; Petersen et al. 2012; Jack et al. 2014; Lund et al. 2016; Petersen et al. 2017). Although various forms and types of integration have been conceptualized (Kodner and Spreeuwenberg 2002; Kodner 2009), integration is essentially a social process involving the management and delivery of a continuum of curative and preventative, multi-level health services, according to the needs of clients [World Health Organization (WHO) 2008].

In South Africa, there is perhaps no more striking example of the consequences of the disintegration of mental health services than the Life Esidimeni tragedy. In this botched deinstitutionalization attempt, the Gauteng DoH ended a long-standing public-private partnership with a major private hospital group, transferring 1371 mental health service users from specialist care settings to nongovernmental organizations (NGOs) during 2016 (Makgoba 2017). To date, >144 have died due to gross negligence, while an unknown number remains missing. The state purportedly followed global narratives that underline the primacy of deinstitutionalization, despite a well-established historical account of the pitfalls of such strategies (Koyanagi 2007; Morrow et al. 2008; Sheth 2009; Shen and Snowden 2014; Thornicroft et al. 2016). At the minimum, the Life Esidimeni tragedy is a spectacular failure of collaboration between state and non-state parties, and laid bare serious dysfunction of referral, regulation and information systems, as well as pointing to a lack of stewardship on a grand scale (Makgoba 2017). The incident was further complicated by a structural disjuncture in governance between the Department of Health (DoH; who oversee health facilities and services) and the Department of Social Development (DoSD; who regulates the activities and services of NGOs), speaking to a degree of siloed working in mental health service provision. Additionally, the incident unfolded in contexts where the relationship between the state and NGOs are fraught with conflict. In South Africa, the establishment of the National Association of Welfare Organizations and Non-profit Organizations (NAWONGO) led to a lengthy court case against the state for improved access to funding (Free State High Court 2010). For Ferguson (2006), this is part of a transnational phenomenon in low- to middle-income countries (LMICs), and similar conflicts emerged in India in the wake of the 2010 introduction of the Foreign Contribution Regulation Act. Importantly, the MHPF is geared towards addressing these crucial concerns, particularly improved collaborative activities.

The MHPF built on a host of post-apartheid mental health reform strategies that have repeatedly stressed the importance of state and non-state collaboration (Janse van Rensburg, Fourie, et al. n.d.; Janse van Rensburg and Fourie 2016). Non-state health service providers include both for and not for profit organizations (Wolvaardt et al. 2008). For-profit organizations include private hospitals, clinics, mental health professionals and physicians. On the non-profit space of the spectrum, NGOs provide mental health services to recipients who cannot afford private care, and may include organizations in different local, national and international capacities, with different approaches. NGOs refer to 'a broad spectrum of voluntary associations that are entirely or largely independent of state and that are not primarily motivated by commercial concerns' (Najam 2000, p. 378), and in South Africa traditional healers are also counted among these service providers (Sorsdahl et al. 2009; Campbell-Hall et al. 2010). NGOs have gradually been recognized as an important resource to tap into and have become key collaborating actors in LMICs, exemplified by global initiatives such as mhNOW and #NGOs4mentalhealth call to action (Kleinman et al. 2016).

Collaboration here involves voluntary inter-organizational participation—with mutual adjustments—in arrangements that encompass the distribution of responsibilities and rewards among collaborators (Hill and Lynn 2003; Axelsson and Axelsson 2006), resulting in the provision of a multi-organizational service delivery network (May and Winter, 2009). Conceptually, two distinct (but intersecting) features of collaboration can be distinguished, namely the degree of collaboration and the contexts behind collaborative activity (Wanna 2008). Collaboration is a core feature of organizational integration, the vertical and horizontal forms of networking and collaboration, both formal and informal, between health service providers (Kodner and Spreeuwenberg 2002; Durbin *et al.* 2006). In South Africa's pluralistic health system, this involves, to a certain

degree, collaborative ties between state and non-state service providers.

Recently, world health leaders including Jim Yong Kim, president of the World Bank Group, and Margaret Chan, Director-General of the WHO, called for a collaborative response to mental health care strengthening that stresses community-level, integrated mental health care (Kleinman et al. 2016). Although the apparent global and local supportive policy environment should be applauded, many challenges remain. Importantly, evidence of health service requirements for mental health integration scale-up (Semrau et al. 2015) and the organization, planning, infrastructure and intersectoral linkages of referral systems (Rathod et al. 2017) are left wanting. There is an identified need to explore the types and interactions of state and non-state actors providing health services in LMICs (Cammett and MacLean 2011). Simply put, improved coordination and stakeholder involvement are crucial in translating mental health policies into tangible outcomes (Hanlon et al. 2017), and increasing collaboration is an essential step for 'mental health to come out of the shadows' (Kleinman et al. 2016, p. 2274). To this end, the aim this study was to provide understanding of the nature and extent of mental health service collaboration among state and non-state service providers in the Mangaung Metropolitan District in the Free State province of South Africa. The nature of collaborative activities here refers to the structure, type and dynamics of relationships, while the extent refers to the degree of collaboration.

Methods

Settina

The study was conducted in the Mangaung Metropolitan District, in the Free State Province, central South Africa. With a population of 759 693, the district includes a city and several small towns and villages. The district includes areas that were designated Bantustans (territory set aside for black inhabitants) during apartheid, and socio-economic and health inequities remain. In 2016, a poverty headcount of 5% was estimated (a compound measurement of 11 indicators of health, education, living standards and economic activity, resulting in an indication of the proportion of households that are considered to be 'multidimensional poor'). In 2015, 27.8% of households received government grants and subsidies (Statistics South Africa 2016).

Approach and design

The study draws from a mixed methods research approach. Nestled in a pragmatic research paradigm (real-world oriented, problem-centred and pluralist practices), mixed methods here refer to the collection and integration of both quantitative and qualitative data towards forming a more complete understanding of a research topic (Cresswell 2014). The study was informed by social network analysis (SNA) as well as by semi-structured interviews. Given that the purpose of SNA is to provide a descriptive, structural perspective, additional methods are required for better explanation of the problem (Provan *et al.* 2005; Marshall and Staeheli 2015; Wölfer *et al.* 2015).

The data collection, analysis and integration of the two methodologies were conducted sequentially, while maintaining the same approximate weight in importance. The study design therefore can be described as an equal status, sequential mixed methods design, the quantitative phase (SNA) preceding the qualitative phase (Johnson and Onwuegbuzie 2004). SNA is an effective method with which to explore integrated care and other health service concerns

(Goodwin 2010; Blanchet and James 2012), and has been shown to be a useful way to explore inter-organizational linkages among health-oriented organizations in LMIC settings (Van Pletzen *et al.* 2014) and mental health organizational collaboration (Nicaise *et al.* 2013, 2014). The use of SNA has pronounced relevance given the various forms of network breakdown in the Life Esidimeni case. SNA procedures were informed by the steps described by Blanchet and James (2012). Accordingly, the study sought to (1) describe the set of actors and members of the network; (2) characterize the relationships between actors; and (3) analyse network structures.

Instrument development

The SNA data collection instrument was developed based on sections of Bruynooghe *et al.* (2008) instrument investigating cooperative relationships among human service organizations. Questions related to the research study were added, including descriptive questions about the organizations and the nature of mental health services and referrals offered. Semi-structured interviews with key participants were guided by a schedule informed by Purdy's (2012) Framework for Assessing Power in Collaborative Governance Processes, combined with probes related to state and non-state interactions, mental health service dynamics and state stewardship.

Data gathering

In order to obtain network data, three steps were followed. First, a list of state health care facilities in Mangaung Metropolitan was obtained from the Free State DoH. This included 41 PHC facilities, three district hospitals, one regional hospital, and one specialist psychiatric hospital. From October to November 2015, the 46 facilities on the list were visited, and the social network instrument was administered face-to-face with health care professionals in charge of mental health care in their respective facilities. This step produced a list of state and non-state service providers with whom state facilities collaborated in mental health service provision. Second, the non-state providers identified in this step were visited and the social network instrument was administered by trained researchers face-to-face to the person in charge of mental health care in each organization. Third, an additional list of NGOs providing mental health services was obtained from Families South Africa (a local NGO who kept records of available NGOs in the district), that was also visited in a similar manner as other organizations. In total, twenty NGOs were identified. Ultimately, a total network of 66 mental health service collaboration partners, both state and non-state, was identified across the district.

Following an initial analysis of this network, clusters of state and non-state collaboration were identified, from which eleven participants were identified for semi-structured interviews. These key informants were asked to identify additional influential actors in mental health service provision not yet identified during the research, resulting in another nine participants identified. Ultimately, 20 semi-structured interviews were conducted, with durations spanning 40–80 min. All participants identified during these processes were contacted for appointments, and following informed consent procedures, semi-structured interviews were conducted in their offices. All participants were fluent in English, and all interviews were conducted accordingly in English.

Data management and analysis

SNA data were electronically captured and structured in Microsoft Excel (Microsoft 2010a), and transferred to Gephi Graph Visualization and Manipulation software (version 0.9.1) (NetBeans 2016) for network analyses. Basic descriptive analysis was performed, producing

indications of node (mental health service providers) and edge (relationships) numbers; network diameter (the shortest distance between the two most distant nodes in the network); average path length (the average number of steps along the shortest paths for all possible pairs of network nodes); density (proportion of the potential network connections that are actual connections); average degree (an average calculation of the number of edges connected to each node); clustering coefficient (the degree to which nodes tend to cluster together in the network); eigenvector values (measures of the relative influence of nodes in a network), and authority rankings (indications of the relative importance of nodes in a network). Gephi's No Overlap algorithm and centrality function were applied to produce an illustration of the network that affords nodes with more centrality a larger size. Filters were applied to isolate different types of collaborations (Supplementary Material S1). Approximations of the weight of interaction among state (split into primary and hospital level) and non-state service providers were calculated in Excel.

The qualitative phase of the research focussed on two groups of participants: (1) collaborating state and non-state collaborating service providers (Table 1), and (2) key informants (Table 2). Semistructured interviews were audio recorded and transcribed verbatim to Microsoft Word (Microsoft 2010b), Transcriptions were transferred to NVivo10 (QSR International 2016) for management during analysis. Interview transcripts were thematically analysed (Saldaña 2014). Pre-determined themes were deductively derived from the SNA instrument, namely, Available mental health services, Reasons for collaboration and Quality, effectiveness, efficiency of care. Power dynamics emerged inductively during the data analysis process. Themes and their content were negotiated among three researchers to remove overlap or irrelevance from the data. Direct quotations—de-identified—are used to support categorization.

Ethical considerations

All research participants were informed of the purpose of the research and their role in it, both verbally and in writing. Signed informed consent was obtained from participants, and data anonymity and confidentiality were achieved by assigning codes to data sources. Participants were offered freedom of participation, and none opted out of the study. The authors obtained ethical approval from their institute.

Study findings

Extent of state and non-state mental health service collaboration

As shown in Figure 1, a striking feature of the network of mental health service providers was the centrality of hospitals, especially the state psychiatric hospital (SH A1). Three distinct network groupings were observed. The largest of the three was the city of Bloemfontein, which helps to explain its larger concentration of service providers—especially NGOs. The two smaller groupings denote small towns which previously were situated in an apartheidera Bantustan (Botshabelo and Thaba Nchu), and remain resource-poor and geographically removed from specialist services.

Table 3 provides an overview of descriptive network statistics. The total network had 66 nodes (mental health service providers), and a 175 edges (relationships in the network). The network diameter—the largest distance between two nodes—was six, meaning that it took six connections to join the two service providers farthest apart from each other in terms of collaborative relationships. The average length of the relationship paths between nodes was almost three (Table 3: Average path length = 2.9). The low number of indirect relationships is also reflected by an overall low level of network density (Table 3: Density = 0.041), as well as by a low average degree (Table 1: Average Degree = 2.652). The clustering coefficient—a calculation of the probability that two separate nodes connected to a given node are connected too, therefore indicating clusters of triangular connections among nodes—was also relatively low at 0.247. Estimated between zero and one, this suggests few clusters of collaborative relationships throughout the network. It is important to note that the statistical averages presented here conceal

Table 2. List of key informant positions and affiliations

Position	Affiliation
State	
Senior psychologist	Government department; Specialist hospital
Programme director	Government department
Psychiatrist	Psychiatry outreach team; District hospital
Psychologist	District hospital
Mental health nurse	District hospital
Mental health nurse	PHC clinic
Non-state	
Case worker	Non-profit organization
CEO	Private for-profit psychiatric hospital
Director	Non-profit organization

Table 1. List of state/non-state mental health collaborations.

State facility		Non-state facility		
Code	Services provided in collaboration	Code	Service provided	
PHC A3	Out-patient drug treatment	NGO A2	Housing, rehab, treatment adherence	
PHC A8	Out-patient drug treatment	NGO A1	Social/welfare services, psychotherapy	
		NGO A2	Housing/rehab, treatment adherence	
		NGO A4	Housing/rehab	
		NGO A5	Substance abuse rehab and prevention	
		NGO A7	Housing, treatment adherence	
PHC A10	Out-patient drug treatment	NGO A1	Social/welfare services, psychotherapy	
SH A1	Acute and serious case processing; social/welfare services	NGO A1	Social/welfare services, psychotherapy	
	•	NGO A4	Housing/rehab	
PHC B12	Out-patient drug treatment	NGO B1	Housing, treatment adherence	
DH B1	Out-patient drug treatment; acute and serious case processing	NGO B1	Housing, treatment adherence	

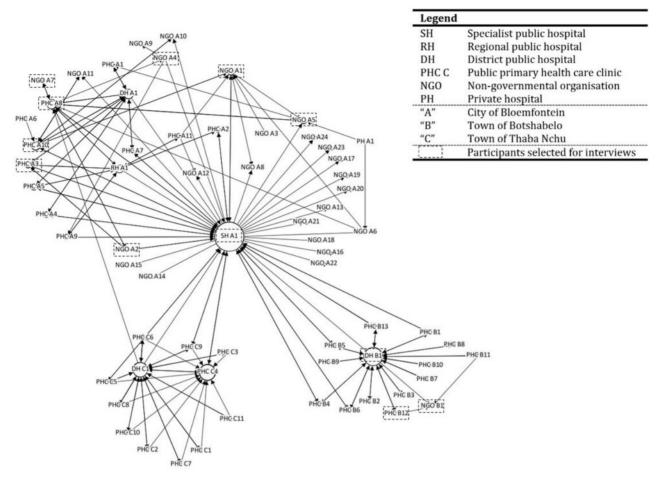


Figure 1. Total network of mental health service provision in Mangaung Metropolitan District

Table 3. Descriptive network statistics

Nodes	Edges	Diameter	Ave. path length	Density	Ave. degree	Ave clustering coefficient	Highest eigenvector value	Highest authority
66	175	6	2.90	0.041	2.652	0.247	SH A1: 1.0	SH A1: 0.385

a substantial discrepancy in terms of a high number of edges attached to selected service providers while other service providers has only a few edges attached to it. This reflects considerable inequality in the network, along with suggesting a hierarchical structure, characterized by a broad base and a narrow top. The state-run psychiatric hospital (SH A1) was the most powerful node in the network. Apart from its superior degree centrality, it was the most influential service provider according to its high eigenvector centrality value (1.0) and its high network authority (0.385), relative to other nodes.

Proportional interactions—i.e. the proportion of the total possible interactions between groups, indicated by a number between 0 and 1—among different service providers were analysed in three groups: hospitals, PHC facilities (both state-driven) and NGOs. Given the disparity in distribution of mental health professionals between PHC on the one hand, and secondary and specialist care on the other, state facilities were divided accordingly. As shown in Figure 2, most interactions took place between hospitals and PHC clinics, with comparatively less interactions between these two groups and non-state facilities. The highest number of relationships between state and non-state was the referral of patients from

hospitals to non-state facilities. A possible reason here—unpacked in the qualitative section—is the concentration of state mental health professionals in hospital care, who might be more likely to collaborate with non-state actors.

Nature of state and non-state mental health service collaboration

Available mental health services

The semi-structured interviews shed light on the range and nature of the core services that were offered by different service providers in the district (see Table 4). As mentioned, state and non-state service providers seemingly provided different kinds of care to mental health service users. The hierarchical structure of state health facilities according to primary, secondary and tertiary levels were concomitant with concentration and availability of specialist human resources for health. The specialist psychiatric hospital provided a broad range of services across all ages—outpatient drug therapy, inpatient services (that included occupational therapy), psychotherapy, treatment adherence, alcohol and drug rehabilitation and forensic and social services. The hospital's ties to the university provided a pool (albeit a relatively small one) of specialists, especially

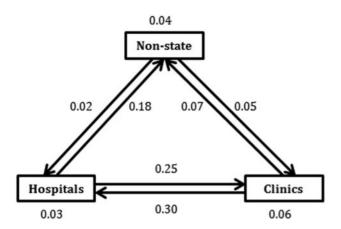


Figure 2. Proportions of collaborative relationships between state hospitals, state PHC clinics and non-state organizations

Table 4. Types of network interactions

Reason for collaboration	Number of interactions		
	n	%	
Outpatient drug therapy	58	33.14	
Acute cases	42	24.0	
Serious cases	34	19.43	
Housing and treatment adherence	25	14.29	
Drug and alcohol rehab	6	3.43	
Psycho-therapy	6	3.43	
Family support	4	2.28	

psychiatrists, clinical psychologists, social workers, psychiatric nurses and occupational therapists. As the SNA results suggested, there seemed to be a geographical inequality in terms of distribution of types of services, the more socially aligned services were more concentrated in more urbanized areas (Figure 1). In more rural areas, participants mentioned that some mental health service users access care from traditional healers, though no formal referral or collaboration was found between the participants and possible traditional healers in the district.

Some of the NGOs provided a range of basic care services, of which housing was especially prolific. Mental health service users were brought there by their families, and the NGOs took care of them—usually in a restructured private home, with several beds and mattresses for mental health service users. Instances were found where as many as 30 mental health service users (both male and female) were housed in a three bedroom house, with one bathroom. Nevertheless, their core services included housing, food and treatment adherence. Mental health service users based in places like this did seemingly not have access to any psychotherapy or rehabilitation, and their care comprised of drug adherence and basic human needs. A key service that emerged during this narrative is the 'containment and management' of mental health service users. This is illustrated below:

Yes, they escape. All of them, they will pop the windows. They break the windows. At night. We do not sleep then. We walk around, check the place (CC_NGO1).

Very little psychotherapy, rehabilitation and support existed outside large public hospitals in urban areas. This was apart from fee for service facilities, which had little contact with public health services due to their for-profit motive. An especially strong actor in this sense was a local NGO who specialized in assisting mental health service users who are not able to afford private mental health care, employing social workers. Their core service package included home-based psychotherapy, group therapy, social support, community awareness and education campaigns, and referrals to other necessary services. Some NGOs did not specialize in mental health care, and rather encompassed it as part of its main focus. Examples include an organization that provided support and services in line with antioccultism, alcohol and drug rehabilitation facilities and organizations focussing on geriatric care. Geriatric facilities were cited as a way in which care can be extended to mental health service users, given the presence of medical and around the clock care. One faith-based organization provided a spectrum of services, as explained here:

We have seven main services. The old age centre, family care, child and youth care, adoption services that are international and national, and then also hospital care and disability care. Then we also have substance dependence programmes, the prevention and alleviation of poverty, and forensic services (CC_NGO4).

The only for-profit organization identified in the network was a private psychiatric hospital, with significant human resource capital, but very little collaboration with other service providers. Their package of care was extensive, and included psychotherapy, dietary care, physiotherapy and frequent access to psychologists and psychiatrists. This particular facility was established following the exchange of psychiatric beds in private hospitals for more profitable surgical beds. Given a perceived rise in mental health needs (especially among middle-class populations who have medical insurance), this market gap was filled. Many of the mental health professionals employed by the facility have dual roles, occupying positions in both the private hospital as well as providing services in state hospitals. The profit motive of this particular facility restricted collaboration with NGOs and state facilities. The little service exchange that did occur unfolded in cases where mental medical aid funds were depleted, viewed with disdain by some participants:

The only time that we engage with them is when the money runs out and then they send them to us, so that actually happens a lot. Yes, around June, July, the patients come from private and then their funds are depleted (SW_TH).

Referrals

SNA findings suggested that PHC facilities tended to refer mental health service users with perceived serious mental conditions, as well as acute cases that often involved psychosis, to hospitals. Hospitals tended to refer discharged mental health service users to PHC facilities for outpatient drug treatment. An important point of collaboration between state and non-state service providers was referral of mental health service users to NGOs that provided housing, basic needs and treatment adherence. Specialized services such as drug and alcohol rehabilitation and psychosocial therapy and rehabilitation were only concentrated in a few NGOs. Available family support services were sparse (Table 4).

Findings from the semi-structured interviews suggested that public health facilities tended to follow provincial referral policy. In this vein, PHC clinics generally screened mental health service users for signs and symptoms of mental illness, and referred them accordingly. In serious cases, mental health service users were referred upwards to district hospitals, which referred upwards to the regional hospital in the district, which in turn referred to the psychiatric

hospital. Hospitals in turn referred mental health service users downwards to PHC clinics for outpatient treatment. Given the paucity of mental health expertise in PHC clinics, an outreach team made up of medical residents in psychiatry and clinical psychologists visited certain clinics in the district in order to increase access to treatment initiation and adaption. Mental health service users are booked for a pre-determined date and then seen by the outreach team at a clinic or hospital. Cases deemed to be serious were referred to district hospitals where mental health service users were assessed for a period of 72 h before being referred further (as stipulated in the Mental Health Care Act). This was perceived to be a necessary policy to prevent the overburdening of the specialist psychiatric hospital:

We do not want to be flooded and stuff (CP_TH).

However, the capacity of district hospitals to offer this particular service was questioned, particularly in terms of adequate space and available mental health professionals. Apart from the official provincial referral system, which dictates that public health facilities have to refer mental health service users to other public health facilities according to a pre-determined referral list, very few state facilities had any formal referral rules in place to non-state service providers. In this vein, the social work unit at the psychiatric hospital was the exception, being a key point of collaboration with NGOs.

Reasons for mental health service collaboration

In the second phase of the network analysis, filters were used to isolate relationships that were identified by the research participants. During the semi-structured interviews, participants were asked to name the main mental health service that they provide in relation to other mental health service providers. These parts of the service delivery network are presented in the Supplementary Material S1. Seven different reasons for collaborative relationships among service providers were identified by participants: Outpatient pharmaceutical care; Serious cases; Drug and alcohol rehabilitation; Psychotherapy and psychosocial rehabilitation; Acute cases; Family support; and Housing and treatment adherence It should be noted that these relationships are not clear-cut, and that many overlaps occur. From the network depictions there is a suggestion of network density disparity between biomedically oriented services (Outpatient drug therapy, Acute cases, Serious cases) and social support and psychotherapeutically oriented services (Housing and treatment adherence, Drug and alcohol rehabilitation, Psychotherapy and psychosocial rehabilitation and Family support). That is, the continuum of mental health care seems to be more skewed towards biomedical than psychosocial approaches. This schism is further bolstered by disparities in terms of the balance of biomedical services subsisting predominantly in the state sphere, while psychosocial services were largely rooted in the sphere of non-state services (see Table 4 for a breakdown of number of interactions per service). The apparent biomedical-psychosocial disjuncture was also underlined in terms of a sector split between the DoH and the DoSD. DoH is the steward of health, and in charge of health facilities. DoSD leads psychosocial rehabilitation and housing, while also regulating the NGO sector. The suggestion therefore is that not only is a disparity between state and non-state services, but also between the DoH and DoSD.

Semi-structured interviews further illuminated the reasons for collaboration. The point was made—especially by PHC clinics that in the absence of adequate community-based assistance for mental health service users, there is a great deal of state reliance on NGOs. One participant remarked that

those people are of great help...they are really, they put their efforts, at times it seems as if even we rely on them more than they rely on us really (PN_PHCC1).

NGOs created a link between the state health system and mental health service users in the surrounding communities. By identifying people in need, and providing them with housing and basic needs, these organizations also linked them up with their local PHC clinics and district hospitals for psychiatric care. Facilities with a presence of social work as a core service voiced appreciation for collaboration with NGOs. This said, singular participants viewed NGOs providing mental health services with contempt and suspicion, and did not see a necessity to collaborate. Such participants were of the opinion that the state should solely be responsible for service provision, and recommended that collaboration with NGOs that provide housing services should be replaced with state institutionalization of mental health service users. The most important reasons for collaboration between state and non-state service providers were drug and alcohol rehabilitation; psychotherapy and psychosocial rehabilitation; family support; and housing and treatment adherence. Although all these functions fall in the regulatory sphere of the DoSD, there was some overlap with the DoH in that state health facilities referred mental health service users to NGOs that provide housing and treatment adherence. It was not entirely clear to what extent such NGOs were regulated. Several state health care workers voiced concern about the conditions of these NGOs, but very few had visited these facilities, citing NGOs as the purview of the DoSD and social workers. NGOs in turn relied heavily on state health care facilities for the clinical and pharmaceutical treatment of their clients, even though some alleged that mental health service users are neglected when seeking care in state facilities. The state psychiatric facility collaborated with NGOs in terms of the processing of statutory and forensic cases, as well as relying on non-state social workers to access communities to follow up on deinstitutionalized mental health service users. In cases where mental health service users became violent or experienced psychosis, the local police station was contacted for transport support. Many participants mentioned difficulties in transporting mental health service users suffering from psychosis between facilities. Subjectivities of dangerousness and risk emerged, that were tied together with inflections of stigmatizing attitudes of state health care workers towards mental illness. A general unwillingness of state health facilities to 'deal' with mental health service users who exhibited psychotic episodes was described, and ambulance services were dismissed as a possible transportation option. Despite an apparent lack of training and willingness of police officers to assist, transporting mental health service users was seen as a police function, because

...we can't carry the patient of something into a car. It's not as if he will say, 'please, thank you I will get in', and drive away (CC_NGO8).

In the absence of police assistance and ambulance service availability, local NGOs were asked to assist with transportation. One NGO participant mentioned that he frequently use his pick-up truck to move mental health service users from state health facilities to his housing facilities, stating that

They want to get rid of that person. They then they phone us (CC_NGO3).

Power dynamics

Power emerged in several forms. As suggested by the SNA results, state hierarchy alongside provincial health service referral policy was a particularly strong primer for collaboration. Power in terms of network centrality (Figure 1) was closely associated with professional capacity. Accordingly, hospitals with stronger concentrations of mental health professionals seemingly received and referred more mental health service users, resulting in a hospital-centric referral system. One participant expressed frustration that—despite regular awareness—PHC level state-run facilities did not refer mental health service users to them for further care and support, rather opting for hospital referrals:

It is a farce, because this organisation is 68 years old and they don't even know our name (CC_NGO2).

This observation and the salience of professional power was supported by a state mental health nurse, who expressed unwillingness to refer mental health service users to non-state actors due to a perceived lack of psychiatric expertise on their part:

We advise them to not go there...Because I don't think they are with us. You can see other referrals. They are not with us. There's no private doctor who can think he can manage psychiatry (PN DH2).

It emerged that different mental health professionals equated different sources of power. A clinical psychologist remarked that nobody had a voice in mental health care, except for psychiatrists. Psychiatry and clinical psychology was almost exclusively concentrated in hospitals, and PHC clinics relied heavily the psychiatric outreach team to process mental health service users' clinical treatment regimes. This source of power was also evident in terms of NGOs linking up with state hospitals (and not with PHC clinics). The significance of this power dynamic was particularly reflected in the reluctance of some participants to refer mental health service users to facilities outside the state services sphere—supporting the suggestion of weak state and non-state service providers (Figure 2). The biomedical slant and clinical nature of state facilities-compounded by the apparent chasm between the DoH and DoSD-further blocked participants from more holistic approaches that take into account living conditions and employment as key elements of mental health care. In this vein, a crucial form of professional power in facilitating state and non-state collaboration was the influence of social work as a profession. There seemed to be a suggestion that social workers are key agents in bridging the state and non-state collaboration gap, and several instances emerged that substantiate this deduction. For example, state social workers had power to provide forensic and specialized treatment for mental health service users, while non-state social workers had access to community settings and people's homes. These services were an important point of collaboration between the state psychiatric hospital and a NGO.

Quality, effectiveness and efficiency of care

Finally, when probed on what is necessary to improve mental health services, study participants made several recommendations. Efficient health information and referral systems were viewed to be dysfunctional, making tracking mental health service user care almost impossible—especially between state and non-state service providers. This is illustrated in the following outtake:

You're giving a date and say: 'Go there". So as soon as this person walks out of here, we don't know. Because they never bring back, like even our patients themselves never bring it back to us

and say: 'I went there and this is what happened'. So we're not sure what happens at the end (PN_PHCC3).

The need for reliable and appropriate transportation for moving mental health service users between service providers was widely discussed. This need was especially pressing in cases where there was reliance on police assistance with transporting people experiencing psychotic episodes to hospitals. District hospitals—who are supposed to admit and evaluate people suffering from psychosis for a mandated 72-h period—lack both the appropriate infrastructure and mental health professionals to achieve this objective, often leading to mental health service users being discharged before receiving adequate care. Drug stock-outs were mentioned by some participants on PHC level. NGOs providing housing and treatment support highlighted a need for state funding, better physical infrastructure and facilities and more clinical support from state mental health professionals. Shortages of mental health professionals, especially in community and in rural settings, were highlighted. A lack of state stewardship, leadership and governance in mental health care was discussed by both state and non-state participants, both on provincial and national levels. As mentioned earlier, and related to this challenge, NGOs called for alternative funding structures, as well as for improved compensation for services rendered. Financial need was discussed by the bulk of participants, which relate to operational costs, infrastructure and human resources-all translating into the quality of care provided. This was simply illustrated as follows:

Without money, we cannot provide services. You can't fill your car with petrol and you can't drive to see your clients. I can't drive to conduct my group sessions and drive to go do community work (CC_NGO2).

Discussion

Despite global mental health service improvements during the past decade (Horton 2007; Tomlinson *et al.* 2009; Collins *et al.* 2011; Patel *et al.* 2011; Patel and Saxena 2014; Thornicroft and Patel 2014), and the introduction of a dedicated mental health care policy in South Africa (South African National Department of Health 2013), our findings suggest that much is left to be achieved at local levels of service delivery. The MHPF adds to calls underlining the primacy of strong collaboration between state and non-state service providers (Savage *et al.* 1997; Milward *et al.* 2010; Janse van Rensburg and Fourie 2016), though it may seem that the 'wicked problem' of mental health in health policy (Hannigan and Coffey 2011) indeed produces few success stories (Mur-Veeman *et al.* 1999).

Regarding the extent of state and non-state mental health service collaboration, the network data suggested a sparse, relatively weakly integrated network with low network density and average degree. Worryingly, and in contrast to policy directives—centrality measures suggested that the collaboration network was largely dominated by hospitals, particularly by the state psychiatric hospital. The absence of contact between service providers and traditional healers was surprising. This support previous qualitative findings from South Africa that suggested a lack of collaboration between the formal health sector and traditional healers in mental health, compared with programmes such as HIV (Campbell-Hall *et al.* 2010). Indications that a large proportion of South Africans seek mental health care from traditional healers (Sorsdahl *et al.* 2009) elevate the importance of this collaborative gap. Ultimately, this

particular network was weakly integrated in terms of sub-optimal primary and community care and the domination of acute care sectors (Mur-Veeman *et al.* 2008). The complete absence of formal service agreements further puts the network at the weak end of the integration spectrum (Nicaise *et al.* 2013). The necessity of NGOs as conduits to communities becomes pressing in spaces where the formal state is relatively weak (Donahue 2004), and our study add to previous indications that very little mental health service collaboration occurs on district-level in South Africa (Hanlon *et al.* 2014),

There is a distinct silence in academic literature on mental health service networks in LMICs. In one of very few empirical articles related to the subject, Van Pletzen et al. (2014) explored partnership networks of health-related NGOs in South Africa, finding wide variations in numbers, resources and orientation of partnership networks. Studies that focus on state and non-state sector collaboration remain crucially under-researched. This is an important omission, given the development potential of SNA to foster stronger state and non-state collaboration (Provan et al. 2005). In South Africa, this ideal is crucial in the wake of the Life Esidimeni tragedy. The country's substantial disease burden, as well as its significant inequalities and inequities in terms of race, sex, spatiality and access to health care—a result of centuries of colonialism and apartheid rule—further elevates the need for improved service integration (Fourie 2006; Coovadia et al. 2009; Harrison 2009; Harris et al. 2011; Mayosi et al. 2012; Van Rensburg and Engelbrecht 2012). Our finding underline the persisting legacy of apartheid policy, in that rural, poorly resourced areas still suffer from a lack of service access. This is not to say that quality services are readily available in urban areas, and inequitable access in terms of richly resourced private for-profit and less well-endowed public service remains a crucial structural challenge in mental health service reform. By drawing from the diverse group of service providers on district level and therefore pooling resources, much progress can be made towards universal coverage (Axelsson and Axelsson 2006).

Similar to other contexts (Mur-Veeman et al. 2003; Fleury et al. 2012; Nicaise et al. 2014), several different points of collaboration—though limited—emerged. Non-state service providers largely relied on state facilities for outpatient pharmaceutical care; serious psychiatric cases; drug and alcohol rehabilitation; and psychotherapy and psychosocial rehabilitation. State facilities in turn relied on non-state sectors for drug and alcohol rehabilitation; psychotherapy and psychosocial rehabilitation; family support; and housing and treatment adherence. Following the Life Esidimeni tragedy, housing and treatment adherence was an especially salient point of collaboration. Instances of distrust in the capacities of NGOs to provide this service, as well as concern over the conditions of some of these NGOs and lack of regulatory oversight, were not entirely unfounded. Although investigating the conditions of NGOs falls beyond the scope of this study, the fissures between the DoH and DoSD spheres of governance help to explain some of the main features of the Life Esidimeni tragedy: a breakdown in coordination and communication between state departments and NGOs, lack of regulatory oversight, and importantly, poor stewardship. It is telling the DoSD does not feature in the official report into the tragedy, despite being stewards of the NGO sector (Makgoba 2017).

Indeed, the nature of collaboration between state and non-state mental health service providers was characterized by an apparent fragmentation between the governance spheres of the DoH and the DoSD, in other words, between medicine and the social. There was an apparent schism between medical-oriented services (outpatient drug therapy, acute cases, serious cases), provided mostly by the state, and socially oriented services (housing and treatment

adherence, drug and alcohol rehabilitation, psycho-therapy, family support), provided largely by non-state services providers. This is not a challenge unique to South Africa, and a lack of health and social service integration within delivery networks has also been noted in high-income countries such as Belgium, the Netherlands, England and Canada (Mur-Veeman et al. 2003; Fleury et al. 2012; Nicaise et al. 2014). Similar bodies of evidence from LMICs are unfortunately almost non-existent. Knocking down the 'Berlin Wall' between health and social care has been an onerous and persistent challenge faced by governments globally (Dickinson and Glasby 2010), and its presence in the present case was telling. The primary goal of state and non-state collaboration is to produce outcomes that cannot be achieved by separate actors and sectors (Emerson et al. 2012). The inter and intra fragmentation of coordination between government (DoH, DoSD and police) and NGOs can result in mental health service users not receiving the most basic elements of care such as safe transport and shelter, as was vividly illustrated in the Life Esidimeni case. To a large degree, fragmented mental health care on organizational level boils down to failures in stewardship and leadership. Participation in a mental health service network is closely tied to effective leadership, determined by leaders whose interpretations and motivations influence the choice of collaborative partners (Purdy 2012). The responsibility for fostering multisectoral and state and non-state collaboration is at the feet of provincial government (South African Government 2004), who need to fulfil their constitutional mandate. The critical mechanisms of mental health stewardship and leadership in this network is described elsewhere, with particular attention paid to the promise of regular stakeholder roundtable discussions as a governance strategy with which to foster stronger collaboration (Janse van Rensburg, Khan, et al. n.d.).

Many challenges to organizational integration are rooted in relations among network members, each whom have their own interests and agency (Provan et al. 2005). In many instances, collaboration serves ulterior political motives, taking on a 'perfunctory, cosmetic' veneer (Wanna 2008, p. 10). Our findings revealed power dynamics-a key feature of integrated health care policy implementation (Erasmus and Gilson 2008; Gilson and Raphaely 2008; Lehmann and Gilson 2013; Janse van Rensburg et al. 2016)—in different forms. State government hierarchy and provincial health system referral policy were seemingly strong influences in collaboration. Authoritative power—'power over'—is firmly couched in the hierarchical health service organization of South African districts (Lehmann and Gilson 2013). Implementation of integrated care policy is difficult in divergent networks with significant power disparities and conflicting perceptions of service delivery (Fleury et al. 2002). Resistance to such power structures can be found in health care workers bypassing traditional lines of authority, as well as in coalitions between NGOs, as has been the case in the establishment of NAWONGO (Janse van Rensburg, Khan, et al. n.d.). These features of power require further unpacking, similar to other work on power and resistance in health service provision (Lehmann and Gilson 2013, 2015; Scott et al. 2014).

Limitations

The cross-sectional study design may have limited the possibility of valid claims—network depictions require frequent revision given the longitudinal dynamics of inter-organizational service collaboration (Mur-Veeman *et al.* 2003). The strategy followed to identify the mental health network in this study has an inherent drawback, in that isolated mental health service providers are under-represented.

It could be that the identified network is not all-inclusive, since some organizations that provide mental health services might just not be effectively linked to the network under scrutiny. Genuine mental health service reform requires sincere participation of all stakeholders (Fleury et al. 2002), and both organizational and population perspectives inform integrated mental health service networks (Fleury 2005). Our study did not include the voices of mental health service users and their families, which certainly opens up avenues for further research. Referral rates are a common indicator of interorganizational collaboration (Craven and Bland 2006). The weight of network referral linkages-an original goal of the study-could not be determined due to the almost non-existence of coordinated, valid monitoring data. An important facet of fostering integrated mental health services lies in the measurement of system performance by means of indicators that transcends policy domains (Plagerson 2015), a feature sorely missing from the present district health information system.

Recommendations

The Life Esidimeni crisis (Makgoba 2017) in many ways exemplified South Africa's protracted struggle towards comprehensive public mental health care provisioning. LMIC mental health services have been typified by resource investment in the clinical, facility-based aspects of mental health care with a focus on symptomatic and short-term care (Saraceno and Dua 2009). The social dimensions of care have been shifted to the sphere of NGOs, who are often inadequately supported, disparate and not well integrated with state health services, rendering the continuum of care disjointed (Petersen et al. 2011). A re-assessment of funding models is required here, as investments need to follow mental health service users from hospitals and clinics to the community. Crucially, integrated health services require inter-institutional arrangements such as policy and financial re-structuring, but also attitudinal, cultural and power changes and professionals' consensus on the division of labour (Mur-Veeman et al. 2003). In order to create and foster appropriate models of integrated community-based care, an expansion is required from the 'clinical' to the 'social' dimensions of care, to include vital human rights aspects such as functioning, disability and social inclusion (Petersen et al. 2011). The MHPF already underline these ideals (South African National Department of Health 2013), but provinces are required to formulate and operationalize areaspecific plans in line with this policy. This is an important consideration towards creating contextually sensitive mental health services, as uniform policy implementation may not adequately accommodate the variations of state and non-state service providers, nor the marked differences between rural and urban settings (Van Pletzen et al. 2014).

Conclusion

The fractured nature of mental health service provision in LMICs persists, despite significant progress during the past decade. This study underlines crucial gaps in organizational integration among mental health service providers, as well as pointing to complex dynamics among state and non-state sectors in health care provision. Many mental health service gaps were touched upon, including fragmented services, low engagement between partners and hospital-centric care. Power remains a key consideration towards better understanding how policies unfold in different contexts and among different actors. The coordination and collaboration explored here

require inputs from mental health service users and their families, a substantial missing piece in including the voice of policy beneficiaries and building towards better care continuity. These complexities can only be comprehended through a lens of plurality, and require evidence-based, rigorous research. Ultimately, the window of opportunity in terms of the global, regional and national momentum gained during the past decade towards building public mental health services in LMICs should be grasped in its entirety.

Ethical approval

Ethical clearance was obtained from the Stellenbosch University Research Ethics Committee: Human Research (Ref: HS1156/2015), and permission to conduct the research was obtained from the FSDoH.

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Supplementary data

Supplementary data are available at Health Policy and Planning online.

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