

Task-shifting psychosocial interventions in public mental health: A review of the evidence in the South African context

# Authors:

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ith a high prevalence rate in South Africa, mental disorders and their associated psychosocial and physical disabilities contribute substantially to the burden of disease and to health costs. Inadequate public health resources and a chronically overburdened health system result in limited access to psychiatric care. Task-shifting psychosocial interventions from specialised to non-specialised health workers (NSHWs) to treat common mental disorders has been widely proposed as a strategy for expanding access to mental health care. While the research regarding task-shifting approaches to psychosocial interventions is increasing, no review of the data on task-shifted interventions to address mental disorders in South African public mental health setting has been conducted to date.

The aim of this chapter is to review such data and consider this evidence in the context of a new mental health policy that seeks to make health services more equitably accessible.

A thematic analysis was conducted on nine South African studies that reported on (i) NSHW-delivered psychosocial interventions; (ii) outcome data pertaining to intervention efficacy; and (iii) at least one outcome that addressed mental illness specifically. This was done by organising extracted data according to themes that might reflect emerging patterns in this area of research.

Thus far, most South African task-shifting studies have focused on depression and substance-use problems. A particular interest in pregnant women as subjects was noted, with a striking absence of interventions aimed at children and adolescents. Across the studies, cadres of health workers were employed to deliver a variety of interventions, all of which had some previous evidence-based support and were manualised. The majority of studies provided evidence for the effectiveness of taskshifted interventions.

Some efforts have been made to test task-shifted interventions, and the results provide preliminary support for the adaptation of manualised, evidence-based programmes to South African contexts. Greater emphasis is now needed on studies that establish the costs and sustainability of such interventions, as well as optimal upscaling and implementation methods. Task-shifting psychosocial interventions from specialised to non-specialised health workers to treat common mental disorders has been widely proposed as a strategy for expanding access to mental health care.

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## Introduction

Globally, the burden of disease is shifting from one defined by premature death to one defined by disability.<sup>1</sup> With an ageing world population, non-communicable diseases, including mental and substance use disorders, have become the leading causes of disability worldwide, and the third leading cause of disability in South Africa.<sup>2</sup> Findings from the South African Stress and Health study (SASH)<sup>3</sup> yielded a 12-month prevalence rate of 16.5% for common mental disorders (CMDs)<sup>a</sup> among South Africans, and a lifetime prevalence of 30.3%,<sup>4</sup> bearing significant economic implications. Nationally, mental disorders account for an average of 23.6 days spent 'out of role': days when people are unable to work or carry out routine daily activities due to mental illness.<sup>5</sup> The loss of income for South African individuals living with such disorders has been calculated at US\$4 798 annually, amounting to a total annual cost of US\$3.6 billion in lost income.<sup>6</sup> With only US\$59 million of the South African health budget dedicated to mental health services, the ratio of 0.32 psychologists and 0.28 psychiatrists for every 100 000 people<sup>7</sup> renders a substantial treatment gap, with those unable to access private care suffering a third blow: a 75% probability that they will not receive the professional attention they require.3

This treatment gap is not unique to South Africa, as most other low- and middle-income countries (LMIC) also suffer serious resource shortages, with some reporting treatment gaps of up to 90%.<sup>8</sup> In response to this crisis, the World Health Organization (WHO) developed a pyramidal framework regarding the "optimal mix for mental health services"<sup>9</sup> (see Figure 1) intended to guide governments in the conceptualisation of equitable and viable mental health policies and plans. The primary recommendations proffered by the WHO include limiting the number of mental hospitals or specialist services (at the top of the services pyramid), and simultaneously developing mental health services in communities as well as in general hospitals; integrating mental health into primary health care; building informal community mental health care services; and promoting self-care (at the base of the framework).

#### Figure 1: Optimal mix of services



Source: WHO, 2007.9

At the core of these recommendations is the deinstitutionalisation and decentralisation of mental health care so that services and interventions are located where they are primarily needed and most accessible: at primary-care level within communities.

The WHO has proposed that, at each tier, certain combinations of professionals and lay people might be utilised in order to provide or facilitate the delivery of services.<sup>9,10</sup> For example, at primary health care level, the provision of mental health services should increasingly become the responsibility of primary care workers such as nurses or doctors, who must receive ongoing training and supervision from specialist mental health professionals such as psychologists and psychiatrists.<sup>10</sup> At primary health care level, trained and supervised lay workers such as community health workers or lay counsellors might be used to deliver primary-level and preventative interventions. In so doing, the need for highly specialised and limited professional services might arguably be reduced, as such needs would be met elsewhere. However, the viability of this framework is wholly dependent on the successful integration of mental health services into general health care.

It is this conceptual framework that has led to significant interest in task-shifted interventions as a possible solution to the problem of making effective mental health services more accessible to the general population.<sup>b</sup> The aim of this chapter is to provide an overview of task-shifting as an approach to the delivery of mental health services aimed specifically at addressing mental illness, including:

- providing a definition of the term 'task-shifting' as it pertains to mental health;
- providing a descriptive review of the current status of research concerning task-shifting interventions in South Africa;
- delineating the recommendations of the WHO Mental Health Gap Action Programme (mhGAP) and the US Institute of Medicine (IOM) competency criteria in terms of mental health service delivery; and
- considering the utility and relevance of task-shifted approaches in the light of current mental health policy.

## Defining 'task-shifting'

Endorsed and advocated by the World Health Organization, taskshifting (also known as task-sharing<sup>c</sup>) is defined as "... involv[ing] the rational redistribution of tasks among health workforce teams. Specific tasks are moved, where appropriate, from highly qualified health workers to health workers with shorter training and fewer qualifications in order to make more efficient use of the available human resources for health".<sup>11</sup> As such, less complex diagnoses can be carried by non-specialist health workers (NSHW) so as to free

a Common mental disorders include anxiety, mood and substance use disorders.

b Given that South African legislation has not yet been expanded to allow for the task-shifting of psychotropic medication, the focus of this chapter is limited to mental health services involving psychosocial interventions.

c 'Task-shifting' and 'task-sharing' are terms that are often used interchangeably. However, there is an important distinction between the two in that task-sharing implies a more collaborative approach that flattens out the hierarchical structure of a physician-centred model. Implicit to the concept of task-sharing is the idea that the same tasks are performed by different cadres of health worker; that interventions/treatments are delivered in a collaborative way; and that responsibility for treatment is shared in this way. Task-shifting demonstrates that tasks that have traditionally been thought of as solely within the scope of specialist practice can often be performed by healthcare workers without specialist training.

up resources to deal with those cases requiring specialist expertise and management.<sup>12</sup> This translates into more cost-effective ways of delivering health services to more people, ultimately providing viable strategies for reducing the large mental health treatment gap.<sup>13</sup>

As an approach, task-shifting has some of its origins in HIV and AIDS care, particularly in developing countries where human resource shortages and the burden on public health systems has been profound, thus limiting access to antiretroviral therapy (ART).<sup>14</sup> In recent times, studies have shown that task-shifting models provide high-quality, cost-effective care to more HIV-infected patients than do physician-centred models,<sup>15</sup> and have increased access to ART.<sup>14</sup> In fact, where South African mental health services are concerned, perhaps the first area in which such services have become integrated into primary health care (PHC) in a task-shifted manner is that of pre- and post-HIV-test counselling, where the use of lay counsellors in PHC settings is now a matter of standard care.<sup>16</sup> Furthermore, with the increasing recognition of the impact of optimal mental health on physical well-being, studies investigating the utility of interventions delivered by lay counsellors to improve health behaviours, such as treatment adherence, are also on the rise.<sup>17</sup>

In their review of costs of mental illness and the cost-effectiveness of treatments, Jack et al.<sup>18</sup> found that interventions incorporating mental health into primary care or community services without utilising specialist services were the most cost-effective. Lund and Flisher<sup>19</sup> developed a South African context- and need-specific model to calculate the costs of implementing an integrated community mental health service, which highlights the cost-effectiveness of addressing mental health needs in communities utilising task-shifting approaches. However, no matter how innovative and effective task-shifting approaches prove to be in reducing the mental health treatment gap, specialist services will always be required.<sup>12</sup> Furthermore, while it is the aim of task-shifting to reduce costs and increase resources, the recommendations put forward by the WHO caution strongly against relying solely on these approaches to deal with health workforce constraints, and emphasise that these should be implemented in conjunction with strategies aimed at increasing the number of health workers. Petersen et al. calculated that costs incurred by the employment of additional community health workers to deliver interventions that might address the treatment gap in rural settings would be offset by a reduction in the number of specialist and non-specialist staff required.<sup>20</sup> However, they have also stressed the need for expanding the evidence base for effective interventions and ensuring that such personnel are adequately supported.<sup>20</sup>

### International evidence for task-shifting in mental health

Understandably, task-shifting has gained particularly significant ground in LMICs, where the prevalence of mental illness is high<sup>21</sup> and strained mental health resources are a commonly shared problem.<sup>22</sup> A recent Cochrane review<sup>23</sup> of the effectiveness of non-specialist health worker (NSHW) interventions for mental, neurological and substance-abuse (MNS) disorders in LMICs found that task-shifting interventions to NSHWs, compared with standard health care services, may: increase the number of adults who recover from depression and/or anxiety, up to six months after treatment; slightly reduce symptoms of perinatal depression in mothers; slightly reduce post-traumatic stress disorder symptoms in adults who have suffered trauma; probably slightly improve the symptoms of people

with dementia; probably improve/slightly improve the mental well-being and lighten the burden and distress of carers of people with dementia; and decrease alcohol consumption in people with alcohol-use disorders. However, the research found that in addition to the studies reviewed being of generally low quality, too few had been conducted within each health worker category and so conclusions about the specific characteristics that made interventions effective could not be drawn.<sup>23</sup>

Where the prevention of MNS disorders is concerned, another systematic review<sup>24</sup> of the roles of lay community health workers (CHWs) and their effectiveness in the delivery of interventions in LMICs had similar findings. Mutamba et al. found that while CHWs might provide effective psychosocial and psychological interventions for the primary and secondary prevention of MNS disorders in LMIC contexts, robust evidence of such strategies in these settings is currently insufficient.<sup>24</sup>

Padmanathan and de Silva<sup>25</sup> reviewed the feasibility and acceptability of task-sharing mental health care in LMICs among service users and health practitioners. While generally in support of the utility of task-shifting, the findings also emphasised the need for caution against viewing task-sharing as an "outright solution" to the human resource crisis in LMICs, as the authors underscore several important factors that should be considered for task-sharing to be acceptable and feasible. These include: attending to the levels of distress experienced by the workforce; their self-perceived level of competence; acceptance of their integration into health systems by other health care professionals; and the incentives provided to ensure workforce retention. Significantly, the review concludes that the main barrier to addressing these is a lack of material resources, emphasising the importance of increased investment in mental health.<sup>25</sup>

While the treatment gap in high-income countries is substantially narrower compared with that in LMICs,<sup>26</sup> restricted resources in primary health care is a burden that even those countries must bear. Strategies to manage expanding treatment gaps, such as the collaborative care model, have also found some traction in these settings. This model is not wholly dissimilar to task-sharing in that it utilises a team of specialist and non-specialist health workers to share responsibility for the delivery of integrated mental health care in primary care settings. However, collaborative care is somewhat more sophisticated insofar as it incorporates a co-ordinated, patientcentred, evidence-based and multi-disciplinary approach to mental health care that is centred on collaborative thinking between health care providers and users regarding treatment goals, decisions and care.<sup>26</sup> Collaborative care and – to some extent – task-sharing, can only be effective in contexts where there is at least one specialist to oversee and co-ordinate the sharing of tasks. In settings where no specialists are available, tasks must be shifted to another cadre of health care worker.<sup>26</sup>

## Guiding standards and ideals

Accessibility of mental health care is only the first step towards bridging the treatment gap. Ensuring that services and interventions are relevant, equitable, effective, and – as far as possible – in keeping with international standards, is just as essential. In service of this ideal, several organisations have done important work in setting standards upon which governments can rely to inform and guide policy. The WHO's Mental Health Gap Action Programme (mhGAP)<sup>27</sup> and the IOM's collaboration with the Uganda National Academy of Sciences (UNAS) to workshop candidate core competencies in mental health human resources<sup>28</sup> are two such examples that warrant discussion.

### Mental Health Gap Action Programme (mhGAP)

A substantial body of work exists describing intervention modalities that have been shown to be effective in the treatment of mental illnesses. The WHO recognised the importance of using this empirical evidence to inform the development of a programme<sup>27</sup> that could address the LMIC treatment gap crisis with packages of effective and quality interventions. This action programme, known as mhGAP, has provided a set of guidelines for health planners and policy-makers so as to accelerate the scale-up of services to treat MNS disorders. To ensure the relevance and cost-effectiveness of interventions, mhGAP identified priority conditions requiring the most urgent attention in that they represent the largest burden in terms of mortality, morbidity or disability, as well as those associated with elevated economic costs or human rights violations. These priority conditions are depression, psychosis, bipolar disorders, epilepsy, developmental and behavioural disorders in children and adolescents, dementia, alcohol-use disorders, drug-use disorders, self-harm/suicide, as well as other significant emotional or medically unexplained complaints.

An integrated package of evidence-based interventions was then developed for the prevention and management of each of these conditions, taking the form of the *mhGAP* Intervention Guide for mental, neurological and substance use disorders in non-specialized health settings (mhGAP-IG).<sup>29</sup> In addition to promoting good clinical practice by presenting requirements for general principles of care, mhGAP-IG provides a master flow-chart that allows the health worker to conduct an informed assessment of the service user and make logical decisions about condition treatment and management. Depending on various factors related to the condition, such as symptom severity, a range of evidence-based psychosocial interventions are recommended and described for implementation.

### Candidate Core Competencies

In 2009, the IOM Forum on Neuroscience and Nervous Systems Disorders and the UNAS Forum on Health and Nutrition convened an international workshop to generate debate and discussion about ways in which human resources for mental health might be strengthened so as to improve care for people living with MNS in sub-Saharan Africa. The need for the development of a diverse network of mental health workers was identified and a second workshop was held in 2012. These discussions were focused on the development of candidate core competencies<sup>28</sup> to ensure the effective delivery of services in the management of MNS disorders, specifically four conditions: depression, psychosis, epilepsy, and alcohol-use disorder.

Here, competency was defined as "the ability of the individual worker, based on his or her acquired knowledge and skills, to deliver an intervention to a desired performance standard."<sup>28</sup> Care providers were grouped into four primary categories, namely (1) community/lay workers; (2) non-specialised, non-prescribing practitioners; (3) non-specialised prescribing practitioners; and (4) specialised practitioners. The definition for each type of provider was adapted from the WHO health worker classification chart,<sup>30</sup>

whilst acknowledging the limits that might apply to each category's abilities or scope of practice. Basic competencies across all categories were listed as: engaging patients; assessing mental and neurological health and suicide risk; providing accurate information; making appropriate treatment decisions; and knowing when to refer a patient to higher levels of care. Specific competencies for dealing with MNS disorders were compiled and tabulated for each human resource category, delineating the skill sets required to perform certain tasks and deliver particular interventions.<sup>28</sup> A subsequent workshop in South Africa reviewed these competencies for the local context.<sup>31</sup>

Both the mhGAP-IG guidelines and the IOM's core competency recommendations are invaluable means by which effective and integrated mental health programmes can be conceptualised and developed. The implementation of and adherence to these standards and guidelines would represent a significant step forward for equitable, effective, and accessible mental health care.

## South African mental health policy

South Africa is one of only 19 African countries to have an officially endorsed and dedicated mental health policy.<sup>1</sup> Consistent with the WHO's recommendations, South African mental health policy is dedicated to the provision of a comprehensive, community-based service that is integrated into general health care.<sup>32</sup> The Mental Health Care Act (2002)<sup>33</sup> promulgated in late 2004 was not only in keeping with international human rights standards, but incorporated the means by which services could be decentralised, mental health could be integrated into general health care, and community-based care could be developed.<sup>34</sup> More recently, the National Mental Health Policy Framework and Strategic Plan 2013-2020 (MHPF)<sup>35</sup> acknowledged the persistent challenges within mental health, including the lack of an officially endorsed mental health policy; the under-funding of mental health; inequity of services between provinces; widespread stigma against those with mental illness; a lack of accurate routinely collected data regarding service delivery; over-reliance on psychiatric hospitals; and under-utilisation of PHC services to deliver care to those with depression and anxiety disorders (thus not merely managing the medication of those with severe mental illness).

In the light of these challenges, the MHPF asserts the following as its mission:

"From infancy to old age, the mental health and well-being of all South Africans will be enabled through the provision of evidence-based, affordable and effective promotion, prevention, treatment and rehabilitation interventions. In partnerships between providers, users, carers and communities, the human rights of people with mental illness will be upheld; they will be provided with care and support; and they will be integrated into normal community life."<sup>35</sup>

In alignment with the WHO's Mental Health Action Plan 2013-2020 framework,<sup>36,37</sup> the MHPF sets forth eight primary objectives towards this end: scaling up decentralised integrated primary mental health services; increasing public awareness; promoting mental health through collaboration with other sectors; empowering local communities to participate in promoting mental well-being; protecting the human rights of people living with mental illness; adopting a multi-sectoral approach to dealing with poverty; establishing a monitoring and evaluation system; and ensuring that mental health services are evidence-based.

Importantly, the framework and strategic plan identifies the expansion of human resources and the use of a task-shifting approach to develop the mental health workforce as areas to be actioned by 2015. In particular, it envisions specialist mental health teams who are tasked with overseeing the delivery of evidence-based psychosocial interventions that are task-shifted to trained non-specialist health workers at primary health care and community levels, focused on: medication monitoring and psychosocial rehabilitation; detection, management and referral of depressive and anxiety disorders; detection, management, and referral of childhood and adolescent disorders; and routine screening, management and referral of perinatal mental illness. The exact composition of the specialist teams, as well as the cadres of workers that might be utilised to deliver task-shifted interventions, are – presumably purposefully – not made explicit.

# Methodology

## Data collection

Articles for this review were retrieved from the following databases: Academic OneFile, Pubmed and Ebscohost (including Academic Search Premier, Africa-Wide Information, CINAHL, Health Source: Nursing/Academic Edition, MEDLINE, PsychARTICLES, PsychINFO, MasterFILE Premier), using the key search phrases 'mental health' AND 'South Africa' AND 'task-shifting' OR 'task-sharing' OR 'nonspecialist health workers'. In addition to scanning reference lists, a number of key stakeholders in mental health were contacted in order to obtain grey literature on task-shifting. A total of 2 498 articles were located, of which 95 were selected on the basis of their relevance to the subject.

The relatively innovative nature of research concerning task-shifting interventions in the field of mental health necessitated that inclusion criteria for articles were kept broad. As such, the final analysis comprised a total of nine articles that met the inclusion criteria in that they (i) reported on a NSHW-delivered psychosocial or counselling intervention; (ii) provided either preliminary or finalised outcome data pertaining to intervention efficacy; and (iii) described at least one outcome that addressed mental illness or symptoms of mental illness specifically, even if only indirectly. Studies that dealt more broadly with mental health by considering the impact of interventions on health behaviours, such as antiretroviral treatment (ART) adherence, were excluded.

### Data analysis

The heterogeneity and limited number of studies under review did not allow for meta-analysis of the data. Data were extracted to a spreadsheet using the following descriptive categories: reference, study aim, design, outcomes assessed, intervention description, and main findings (see Table 1). Where the intervention description was concerned, attention was given to: the prioritisation of conditions and identified outcomes; the populations for whom the interventions were intended; the intervention format and theoretical orientation or modality; and the training and supervision of NSHW to deliver the interventions. A thematic analysis was undertaken whereby the extracted data were organised according to themes that might reflect emerging patterns in this area of research. An additional set of data from ongoing studies are represented in Table 2. These were located via the same database search for the primary data. In addition, the South African Clinical Trials Registry was consulted and colleagues working in this area were asked to suggest trials that would be appropriate for inclusion.

Despite the very limited number of studies available for review, there are interesting trends worth noting. While task-shifting is strongly endorsed as a means of treating mental illness, even international evidence of such interventions remains limited.<sup>48</sup> In fact, Petersen and Lund's<sup>49</sup> review of South African mental health services between 2000 and 2010 showed that intervention studies on the whole were in the minority, with only two intervention studies included in their review for that period. Mental health intervention studies are labour-intensive and expensive, which might explain why so few are undertaken. Since Petersen and Lund's<sup>49</sup> review – carried by the impetus of the global mental health movement and driven by the imminent implementation of National Health Insurance (NHI) efforts to investigate interventions have intensified, particularly those of a task-shifting nature. Several studies are currently under way and worth mentioning as they promise to be influential in conceptualising and shaping future intervention models and mental health care policy.

#### Studies in progress

Although still in varying stages of pre-implementation, it is important to highlight several important ongoing studies that will certainly break new and significant ground where task-shifting intervention research is concerned.

The significance of these studies lies in several areas, not least of which is in demonstrating academia's response to the need for accessible mental health services that are integrated into primary health care. Table 1: South African NSHW psychosocial intervention studies presenting preliminary or finalised mental health outcomes

Reference	Design	Intervention description	Study site	Sample	Outcomes/focus		
Cooper et al. (2009), <sup>38</sup> Improving quality of mother-infant relationship and infant attachment in socio- economically deprived community in South Africa: randomised controlled trial.	RCT	16 home-visits (2 antenatal) up to 5 months post-partum, by community members with 4-month training in basic parenting and counselling skills, as well as delivery of mother-infant intervention aimed at encouraging mothers to be more sensitive and responsive in their interactions with their infants. Weekly supervision by a Clinical Psychologist.	Khayelitsha, Western Cape. Participants' homes.	449 Pregnant women (intervention group: 220; control group: 229). 107 lost to follow-up.	Primary: mother- infant interactions (6 and 12 months postpartum), infant attachment security (18 months) Secondary: maternal depression (6 and 12 months)		
	Main Finding	Main Findings					
	Primary outcome: Intervention improved quality of mother-infant interactions at 6 months: mean difference=0.77 (SD 0.37), 12 months: mean difference=0.42 (SD 0.18), and less intrusive, at 6 months: mean difference=0.68 (SD 0.36), 12 months: mean difference=-1.76 (SD 0.86), Higher rate of secure infant attachments at 18 months (116/156 (74%) v 102/162 (63%). Secondary outcome: Prevalence of maternal depressive disorder not significantly reduced, some benefit in terms of maternal depressed mood at 6 months.						
Reference	Design	Intervention description	Study site	Sample	Outcomes/focus		
Myers et al. (2012), <sup>39</sup> Feasibility and acceptability of screening and brief interventions to address alcohol and other drug use among patiente presenting for	Feasibility and acceptability (F+A)	SBI: 1 <sup>d</sup> on-site session of psycho- education and MI <sup>e</sup> intervention conducted by peer counsellors, with minimum of bachelors-level education. 3 day MI training, 3 half-day booster trainings, biweekly supervision, 16 hours of training about AODs, <sup>1</sup> measures, ethics and procedures.	3 ED <sup>9</sup> services in 2 low-income communities in Cape Town.	30 patients and 10 ED personnel (for F+A). Patients >18 years, present with injury and screen at-risk for AOD-related problems.	Feasibility and acceptability of SBI in ED services to address AOD-use disorders.		
emergency services	Main Finding	3	I	<u> </u>	I		
in Cape Town, South Africa.	Found to be feasible and acceptable (study ongoing). 1 458 completed SBI at time of publication, 20.9% at moderate to high risk for AOD-use disorder. Of those, 74.8% participated. For F+A, patient follow-up at 3 months post-intervention, 25/30 felt SBI helped reduce AOD use. All 10 ED staff members thought SBI was useful and did not impact on workflow or add to workload. Recommendations were to expand SBI reach, increase programme visibility, and broaden focus. Peer counsellors: buy-in and support from personnel could be improved; lack of private space; difficulty approaching intoxicated patients, and dealing with traumatic nature of ER.						
Reference	Design	Intervention description	Study site	Sample	Outcomes/focus		
Petersen et al. (2012), <sup>40</sup> The feasibility of adapted group-based interpersonal therapy (IPT) for the treatment of depression by community health	Process and outcome evaluation using non- randomised control group.	12 week IPT <sup>h</sup> group intervention delivered by CHWs with 4-day workshop training, supervised by a Registered Counsellor.	1 CHC in Hlabisa Sub- district, northern KwaZulu-Natal.	60 HIV clinic service users of >18 years. 30 divided into 4 therapy groups, 30 non-treatment control group.	Depression (baseline, upon conclusion of intervention, and 24 weeks after baseline). F+A with 9 participants and 2 CHWs.		
workers within the	Main Findings						
context of task-shifting in South Africa.	Feasible and acceptable. Intervention group showed significant reduction in depressive symptoms. Mean baseline BDI scores for both groups in severely depressed range (34.85 for intervention group and 32.45 for the controls). At 12 and 24 weeks post-intervention, mean BDI scores for intervention participants was in mild range (17.85 and 12.90 respectively). At 12 weeks post-intervention, mean BDI score for control group was still in severe range (31.23), and only reduced to the moderate range (26.86) at 24 weeks.						
	moderate rang	e (20.00) al 24 weeks.					
	Mean HSCL-29 intervention pa in overall psyc (mean HSCL-2 cut-off for psyc score (mean H	5 scores for both groups at baseline fell abo riticipants and 2.64 for the controls). At 12 o nological functioning (mean HSCL-25 score 5 score of 2.68). At 24 weeks, the mean H chological dysfunction (mean HSCL-25 sco SCL-25 score of 2.26).	ove the 1.75 cut-of weeks, interventio e of 1.85) compare SCL-25 score for th re of 1.60) compar	f for psychological dysfur n participants showed sig d to controls who showe e intervention participar ed to controls which was	nction (2.99 for the gnificant improvement d no improvement its was below the still above the cut-off		
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<b>Reference</b> Le Roux et al. (2013), <sup>41</sup> Outcomes of home visits for pregnant mothers and their infants: A cluster randomised control trial.	Mean HSCL-22 intervention pa in overall psyc (mean HSCL-2 cut-off for psyc score (mean H Design RCT	<ul> <li>(20.60) at 24 weeks.</li> <li>5 scores for both groups at baseline fell abortricipants and 2.64 for the controls). At 12 mological functioning (mean HSCL-25 score 5 score of 2.68). At 24 weeks, the mean HSthological dysfunction (mean HSCL-25 score SCL-25 score of 2.26).</li> <li>Intervention description</li> <li>Philani Intervention Programme (PIP): 4 antenatal and 4 postnatal home visits from 'Mother Mentors' regarding HIV, alcohol, nutrition, depression, health care regimens for the family, caretaking and bonding, and securing government-provided child grants.</li> </ul>	ove the 1.75 cut-of weeks, interventio e of 1.85) compare SCL-25 score for th re of 1.60) compar <b>Study site</b> 24 areas in Cape Town; participants' homes.	f for psychological dysfur n participants showed sig d to controls who showen e intervention participar ed to controls which was <b>Sample</b> 1 239 women >18 years, but <34 weeks pregnant and 'at risk' for HIV, alcohol, mental health, and/or nutrition problems	Action (2.99 for the gnificant improvement d no improvement the was below the still above the cut-off <b>Outcomes/focus</b> Multiple outcomes across 5 domains: (1) child health status (2) health care and monitoring (3) HIV-related preventive acts (4) mental health (5) social support		
<b>Reference</b> Le Roux et al. (2013), <sup>41</sup> Outcomes of home visits for pregnant mothers and their infants: A cluster randomised control trial.	Mean HSCL-22 intervention pa in overall psyc (mean HSCL-2 cut-off for psyc score (mean H Design RCT Main Findings	<ul> <li>(20.60) at 24 weeks.</li> <li>5 scores for both groups at baseline fell about riticipants and 2.64 for the controls). At 12 mological functioning (mean HSCL-25 score 5 score of 2.68). At 24 weeks, the mean HS chological dysfunction (mean HSCL-25 score SCL-25 score of 2.26).</li> <li>Intervention description</li> <li>Philani Intervention Programme (PIP): 4 antenatal and 4 postnatal home visits from 'Mother Mentors' regarding HIV, alcohol, nutrition, depression, health care regimens for the family, caretaking and bonding, and securing government-provided child grants.</li> </ul>	ove the 1.75 cut-of weeks, interventio e of 1.85) compare SCL-25 score for th re of 1.60) compar Study site 24 areas in Cape Town; participants' homes.	f for psychological dysfur n participants showed sig d to controls who showen e intervention participar ed to controls which was <b>Sample</b> 1 239 women >18 years, but <34 weeks pregnant and 'at risk' for HIV, alcohol, mental health, and/or nutrition problems	Action (2.99 for the gnificant improvement d no improvement the was below the still above the cut-off <b>Outcomes/focus</b> Multiple outcomes across 5 domains: (1) child health status (2) health care and monitoring (3) HIV-related preventive acts (4) mental health (5) social support		
Reference Le Roux et al. (2013), <sup>41</sup> Outcomes of home visits for pregnant mothers and their infants: A cluster randomised control trial.	Mean HSCL-2 intervention pa in overall psyc (mean HSCL-2 cut-off for psyc score (mean H Design RCT Main Findings PIP group outp months. No sig	<ul> <li>(20.60) at 24 weeks.</li> <li>5 scores for both groups at baseline fell abortricipants and 2.64 for the controls). At 12 mological functioning (mean HSCL-25 score 5 score of 2.68). At 24 weeks, the mean HSChological dysfunction (mean HSCL-25 score SCL-25 score of 2.26).</li> <li>Intervention description         Philani Intervention Programme (PIP): 4 antenatal and 4 postnatal home visits from 'Mother Mentors' regarding HIV, alcohol, nutrition, depression, health care regimens for the family, caretaking and bonding, and securing government-provided child grants.     </li> <li>Sectormed on 7 of 28 outcomes, demonstrating and differences between groups on description and securing government-provided child grants.</li> </ul>	by the 1.75 cut-of weeks, interventio e of 1.85) compare SCL-25 score for th re of 1.60) compar <b>Study site</b> 24 areas in Cape Town; participants' homes.	f for psychological dysfur n participants showed sig d to controls who showen in intervention participar ed to controls which was <b>Sample</b> 1 239 women >18 years, but <34 weeks pregnant and 'at risk' for HIV, alcohol, mental health, and/or nutrition problems	Action (2.99 for the gnificant improvement d no improvement the was below the still above the cut-off <b>Outcomes/focus</b> Multiple outcomes across 5 domains: (1) child health status (2) health care and monitoring (3) HIV-related preventive acts (4) mental health (5) social support being over the first 6 uccomes.		

d Screening and brief intervention

e Motivational Interviewing

f Alcohol and other drugs

g Emergency department

h Interpersonal Therapy

Reference Pengpid et al. (2013), <sup>42</sup> Screening and brief interventions for hazardous and harmful alcohol use among hospital outpatients in South Africa: results	Design RCT	Intervention description Assistant nurse counsellors delivered 20-minute intervention that included feedback on AUDIT results, psycho- education (oral and leaflet), some aspects of PST.	Study site Dr George Mukhari Hospital, Vhembe District, Limpopo Province.	Sample All outpatients of >18 years who screened as hazardous or harmful drinkers on the AUDIT.	Outcomes/focus Alcohol-use disorders.		
controlled trial.	Main findings Of 282 hospital outpatients who completed a 12-month follow-up session, time effects on AUDIT scores were significant [F (1,195=7.72), P<0.01] but the intervention effect on AUDIT score was statistically not significant [F (1.194=0.06). P<0.804].						
Reference	Design	Intervention description	Study site	Sample	Outcomes/focus		
Petersen et al. (2014), <sup>43</sup> A group-based counselling intervention for depression comorbid with HIV/AIDS using a task-shifting approach in South Africa: A randomised controlled pilot study. <sup>44</sup>	RC pilot study	8-session group-based IPT delivered by lay HIV counsellor with 4 days' training, with weekly supervision from clinical psychology trainees for first 2 months and thereafter on a monthly basis.	1 ART clinic in PHC in peri- urban area, eThekweni District in KwaZulu-Natal.	34 people of >18 years who are HIV- seropositive with comorbid depression: 17 in therapy group, 17 in control.	Depression, psychological dysfunction, and social support.		
	Main findings Depression baseline scores placed both groups in moderate range on PHQ9 (15.18 and 15.47). Intervention group showed significantly greater improvement on PHQ9 at 3-month follow-up (mean difference scores of 8.53 compared to 4.12 in control group). Baseline mean scores for both groups fell above cut-off of 1.75 for psychological dysfunction on HSCL-25 (2.59 for the intervention group and 2.50 for control participants). Significant decline in post-test mean scores on HSCL-25 found for both groups (1.97 and 2.13), although intervention group showed greater improvement. No significant difference on social support measure (MSPSS).						
Reference	Design	Intervention description	Study site	Sample	Outcomes/focus		
Richter et al. (2014), <sup>45</sup> Pregnant women living with HIV (WLH) supported at clinics by peer WLH: A cluster randomised controlled trial.	RCT	8 sessions of Peer Mentor support (Masihambisane): 4 antenatal and 4 postnatal. Peer mentors were WLH who were mothers and had good social skills. 2-month training and weekly supervision.	8 clinics in KwaZulu-Natal.	602 pregnant WLH in PHC programmes.	Multiple outcomes: HIV transmission- related behaviours Infant health status Maternal health care and monitoring mental health: depression parenting tasks		
	Main findings           Intervention group performed better on 3 of 16 outcomes. Significantly lower levels of depression in study group compared						
	to control at fo	llow up (GHQ). Low retention rate: 87% atte	ended at least one	session but only 5% atte	ended all 8 sessions.		
Reference Sorsdahl et al. (2014), <sup>46</sup> Adapting a blended motivational interviewing and problem-solving intervention to address risky substance use amongst South Africans.	Design Acceptability and preliminary outcomes (pre- and post-test).	Intervention description 5 sessions of blended MI and PST intervention delivered by peer counsellors with Bachelor's-level education, who received 18 hours of MI training and 3 half-day booster training sessions, as well as 12 hours of PST training and additional training in AODs, measures, ethics and procedures.	Study site 3 Emergency departments in Cape Town, Western Cape Province.	Sample 20 participants of >18 years and at moderate to high risk of substance-related problems.	Outcomes/focus Primary: Substance-use involvement. Secondary: Problem-solving styles and depression.		
	Main findings Primary:						
	Significant reductions in ASSIST scores at 3-month follow-up [t(14) = 6.66, p < 0.001]. Mean ASSIST score at follow-up was 6.67 (SD = 6.8) and the mean ASSIST change score from baseline was $-14.13$ . <i>Secondary:</i> Gains seen on Rational Problem-Solving scale [RPS; t(14) = $-3.39$ , p < 0.001] and reductions in the Impulsive or Careless Style scale [ICS; t(14) = $1.17$ , p < 0.001]. No differences in symptoms of depression or in problem-solving orientation. Found to be acceptable.						
Reference	Design	Intervention description	Study site	Sample	Outcomes/focus		
Sorsdahl et al. (2015), <sup>47</sup> Feasibility and preliminary responses to a screening and behavioural intervention for maternal mental disorders.	Feasibility and preliminary outcomes (pre- and post-test).	Intervention based on '5 As' Smoking Cessation Clinical Practice Guidelines, adapted to address other substances, delivered by lay HIV counsellors, as well as psycho-education materials.	MOU <sup>i</sup> in low-income peri-urban area in Cape Town, Western Cape Province.	Pregnant women who present for first visit at MOU. 3 month follow-up: 74 tobacco users; 15 alcohol or other drug users; 70 who screened as depressed.	Alcohol, tobacco and other drug (ATOD) use (wih Fagerström and ASSIST); or scored >15 on depression screening measure (EPDS).		
	Main Findings						
	Post-intervention and receipt of psycho-education materials: significant reduction in tobacco use (pre-intervention mean 18.160 $\pm$ 2.5, post-intervention mean 4.24 $\pm$ 1.75, t (73) = 3.45, p\0.001). No significant reduction in alcohol and drug use. Significant reduction in depression scores (pre-intervention mean 18.160 $\pm$ 2.5, post-intervention mean 11.94 $\pm$ 5.78, t (69) = 8.51, p\0.001).						
	Found to be teasible: MOU personnel telt intervention was useful but reported increase in workload. Lack of referral pathways for those who need more specialised care. Low disclosure rates of those using AOD.				Lack of referral		

Reference	Study design	Sample and site	Outcomes/focus			
Africa Focus on Intervention Research (AFFIRM),	RCT	420 pregnant women who screen positive for depression will be recruited from 2 MOUs in the Western Cape Provincce.	Depression			
Lund et al. (2014) <sup>50</sup>	Intervention description					
	Participants who are not randomly assigned to control arm receive a manualised intervention comprising 6 counselling sessions delivered by a Community Health Worker (CHW) incorporating PST, psycho-education, behavioural activation and relaxation techniques. CHWs will receive 5 days of training and weekly supervision by a Social Worker.					
Reference	Study design	Sample and site	Outcomes/focus			
Comorbid Affective Disorders, AIDS/HIV, and Long Term Health	Cluster RCT	2 000 adults who are receiving ART at 40 primary health care clinics in the North West Province will be recruited.	HIV-related and ART adherence; depression and alcohol use			
(COBALT), Thornicroft et al	Intervention description					
(2015) <sup>51</sup>	Participants who meet the criteria and who are assigned to intervention groups will receive a group psychosocial intervention delivered by lay counsellors.					
Reference	Study design	Sample and site	Outcomes/focus			
Programme for Improving Mental Health Care (PRIME).	The complexity of the study requires multiple methods of evaluation.	General populations accessing primary health care services at various sites in 5 countries: Ethiopia, India, Nepal, Uganda, and South Africa.	Various mental health outcomes and priority conditions.			
Lund et al. (2012) <sup>52</sup>	Intervention description					
	The study seeks to generate evidence for the integration of mental health care into primary health care systems via the development of mental health care plans that incorporate evidence-based packages of care. The composition as well as the human resource cadre to deliver these packages of care will be determined by the needs of each site and what is relevant.					
Reference	Study design	Sample and site	Outcomes/focus			
Parry et al. (2014) <sup>17</sup>	RCT	325 adults living with HIV will be recruited from hospital-based HIV clinics in Tshwane to participate in this three-arm comparison trial.	Harmful/hazardous alcohol intake and HIV-related outcomes.			
	Intervention description					
	Participants will be randomised to a MI-PST intervention group, an equal-attention wellness group, or a treatment-as- usual group. Interventions will be delivered by health counsellors.					
Reference	Study design	Sample and site	Outcomes/focus			
Project MIND. Myers et al. (2015) <sup>53</sup>	Cluster RCT	1 200 adults who have HIV or diabetes and screen positive for depression and/or risky alcohol use will be recruited from 24 HIV and 24 diabetes clinics	Harmful/hazardous alcohol intake and HIV-related outcomes.			
	Intervention description					
	The study is investigating a vertical model of service integration to a horizontal model relative to treatment as usual. Participants randomised to the intervention arms will receive 4 MI-PST blended counselling sessions from trained Community Health Workers.					

#### Table 2: Ongoing studies that incorporate task-shifted psychosocial interventions

## Discussion

The emerging patterns in this field of research are reflected in the areas of interest in the following outline.

#### Study designs

Of the nine articles included in the review, more than half utilised randomised control designs (RCTs),<sup>38,41-43,45</sup> one employed a non-randomised control group,<sup>40</sup> and three were feasibility and acceptability studies that made use of qualitative or mixed methods and provided preliminary outcomes using a quasi-experimental design in the form of pre- and post-test methods.<sup>39,46,47</sup> This composition of designs is indicative of the relative novelty of this area of study, although the high percentage of randomised controlled trials reflects a commitment to the development of robust and rigorously tested interventions.

While RCTs are considered to be the international gold standard for research, the importance of acceptability and feasibility studies in order to culturally adapt evidence-based psychosocial interventions for mental health should not be underestimated. The recent debates concerning the negative impact of interventions that are not locally relevant on health outcomes and mental health awareness serve to highlight the importance of thorough situational analyses that feasibility and acceptability studies provide.<sup>54,55</sup> These studies provide researchers with an essential opportunity to assess the appropriateness, cultural relevance and practical applicability of the interventions they seek to test, for the people for whose benefit they are designed. Furthermore, the preliminary data gathered from these studies often provide the basis and rationale for applications to fund more rigorous RCT investigations.

## Characteristics of the interventions

Despite the fledgling status of task-shifting intervention studies, noteworthy trends in the interventions have already emerged.

#### Priority conditions

Since task-shifting is intended to provide effective and accessible mental health care to more people, it is reasonable to assume that such interventions should target those disorders that are the most common and that represent the greatest disease-burden. In addition to considering the WHO's list of priority conditions,<sup>i</sup> the results of the SASH study<sup>4</sup> are also locally relevant to the conceptualisation of appropriate mental health care services. This study found that the lifetime prevalence of common mental disorders (CMDs) was as follows: anxiety disorders, 15.8%; mood disorders, 9.8%, and substance-use disorders, 13.3%.

It is interesting then to note that – with the exception of the Cooper et al.<sup>38</sup> study (that had the primary aim of improving the quality of attachment between mothers and infants) – the studies on taskshifting under review have limited their mental health outcomes to depression or substance-use disorders (or both). Four of the studies had substance-use disorders as their primary outcomes, <sup>39,42,46,47</sup> of which two included depression as secondary outcomes; two focused on depression in particular,<sup>40,43</sup> and two of the largest studies had multiple general health outcomes, of which mental health was one – specifically, depression.<sup>41,45</sup> None of the studies sought to address anxiety disorders directly, despite the fact that these disorders are the most prevalent of the CMDs. None has focused on any other psychiatric illnesses or priority conditions identified by the WHO.

It is possible that the focus on substance-use disorders is due to the strong association of these conditions with a number of psychiatric symptoms and disorders, including psychotic and mood disorders; a wide range of health problems; as well as being implicated in a plethora of psychosocial ills, such as crime and violence.<sup>56</sup> The focus on depression might be motivated by the widely-cited WHO projection that this disorder will be the leading cause of disability by 2020,<sup>57</sup> underscoring an urgent need for effective and accessible treatment possibilities. Additionally, the rationale for focusing on these disorders might inhere in both disorders being considered treatable.<sup>28</sup>

Notably, there is an emerging movement in global mental health care that seeks to relocate interventions from a disorder-specific to a more transdiagnostic focus, such as the common elements treatment approach.<sup>58</sup> The studies under review highlight the lack of existing research that investigates this; however, studies in progress such as Project MIND<sup>53</sup> are indeed investigating a transdiagnostic approach.

### Target populations

There appears to be a striking interest in the development of services for pregnant women and mothers, with four of the studies aimed at this particularly vulnerable population.<sup>38,41,45,47</sup> The AFFIRM<sup>50,52</sup> and PRIME trials are two ongoing studies that are also concerned with this population. This could be attributed to the recognition and importance that the WHO Millennium Development Goals have assigned to maternal health,<sup>59</sup> in addition to the far-reaching implications that mothers' overall well-being will carry for the well-being of their children. Two of the three studies that targeted pregnant women specifically considered those living with HIV,<sup>41,45</sup> while an additional two interventions were aimed specifically at people living with HIV.<sup>40,43</sup> Only two studies included both male and female participants,<sup>37,57</sup> and these were focused on substanceuse disorders. None of the interventions was aimed at children or adolescents, except for the Cooper et al.<sup>38</sup> study which sought to facilitate the development of secure attachment styles in the infants. The absence of studies aimed at child and adolescent mental health is particularly noteworthy when considering that the needs of this vulnerable group are prioritised by both local government<sup>34</sup> and international organisations, such as the WHO.<sup>57</sup> It is possible that the ethical complexities inherent in conducting research with minors as subjects is a deterrent to researchers, especially given the relative novelty of task-shifting approaches to mental health. Furthermore, sub-specialists in the area of child and adolescent mental health are limited in number.

In light of the WHO recommendation that mental health be integrated into primary care, there is evidence of a growing interest in developing an evidence base for effective models of integrated care. In these studies, the focus is expanded to reach more people and is not limited to specific populations. Examples of these include the PRIME study<sup>52</sup> and project MIND,<sup>53</sup> both currently in progress. However, even these studies are primarily limited to adult subjects.

#### Treatment modalities

Evidence-based treatments have been defined as "those psychological interventions that have been shown by means of empirical research to reduce symptomatology and increase functioning among clients, at a rate that is beyond what would have occurred by chance".61 Given the burden of mental illness on public health in LMICs, there is a need to rely on evidence-based treatments in primary health care settings.<sup>62,63</sup> This is chiefly to ensure that only therapies with proven efficacy are used to treat mental illnesses, in the interests of preserving quality and ethical standards. The importance of using only clearly defined evidenced-based treatments becomes all the more pertinent in task-shifting scenarios where interventions are delivered by healthcare providers who usually have no formal training in psychology or psychotherapy. In this regard, the use of manuals can help to ensure intervention fidelity. For research purposes, 'manualisation' means that standardised protocols can be carefully tested, procedures can be replicated, and extraneous variables can be more easily controlled.

While there is some variability in the descriptions provided by researchers concerning the interventions used, most deployed adapted evidence-based modalities that have been endorsed by WHO's mhGAP Intervention Guide.<sup>20,29,54,6466</sup> Of the nine studies under review, two used Interpersonal Therapy (IPT),<sup>40,43</sup> two incorporated Motivational Interviewing (MI),<sup>37,56</sup> one included components of Problem-Solving Therapy (PST)<sup>40</sup> (one was a MI-PST blended intervention), a further two used peer support or mentoring programmes based on evidence-based programmes,<sup>41,45</sup> and one used an intervention based on attachment theory.<sup>38</sup> All of these modalities have garnered empirical support in other contexts. However, the evidence base for these interventions in the South African context is thin, making these studies all the more relevant to the inquiry into appropriate and viable mental health interventions.

Seven of the nine studies clearly described or referred to the use of an intervention manual. The remaining two studies' interventions appear to have been manualised, but this is not made explicit.<sup>45,60</sup> All interventions were adapted for the particular needs of the target group or the focus problem and the particular context, and all incorporated a psycho-education component intended to raise awareness and understanding of mental health and illness. The number of sessions prescribed and delivered varied substantially

j The priority conditions identified by the WHO's mhGAP are depression, psychosis, bipolar disorders, epilepsy, developmental and behavioural disorders in children and adolescents, dementia, alcohol use disorders, drug use disorders, self-harm / suicide, as well as other significant emotional or medically unexplained complaints.

between studies, depending on the modality, but all were short-term interventions, with the longest being an IPT group-based intervention of 12 sessions.  $^{40}\,$ 

### The mental health care providers

Where human resources were concerned, 'peer' counsellors or mentors were used to deliver four of the studies' interventions;<sup>38,39,45,46</sup> two studies used lay HIV counsellors;<sup>43,47</sup> and a further two used Community Health Workers (CHWs),<sup>40,41</sup> while an assistant nurse counsellor was responsible for the provision of the remaining study's programme.<sup>42</sup> The definitions of these particular human resource categories were often vague. Very few of the studies adequately delineated the general roles, expectations or characteristics of the particular provider utilised. Where the qualities of counsellors were concerned, some studies deemed the level of education, <sup>39,46</sup> while others sought characteristics that counsellors shared with participants (consistent with the peer-counselling approach), for example HIV status,<sup>45</sup> originating from the same community,<sup>38,39,46</sup> or being a mother.<sup>38,41,45</sup>

It is important to recognise that no matter how well-researched, sensitive or intelligent the design of the intervention protocol, the successful delivery of psychosocial interventions is in many respects dependent on the quality of the relationship between the provider and the patient or service user.<sup>67</sup> This is not explored in any of the studies. While manualised therapies can provide some means of mitigating the influence of a provider's personality, culture, history or personal experiences, they will never eradicate them. Whether this is in fact desirable for mental health interventions is a discussion worth having, but beyond the scope of this chapter. However, it is worth noting that a recent review by Petersen et al.<sup>16</sup> of South African lay counsellor services found that many studies reported suboptimal fidelity to intervention protocol. This finding highlights the need for researchers to pay more attention to the categories of health worker cadre deployed, and to consider the limitations in capabilities and knowledge that might apply and could ultimately represent a threat to the integrity of the intervention. If a psychosocial intervention is only as reliable and effective as the person delivering it, understanding which qualities and competencies make people adequate or appropriate mental health care providers must be accorded greater centrality in the research. Task-shifting is a response to the mandate to deliver equitable healthcare services, which must extend to the quality of the service and not simply its accessibility.

Additionally, bearing in mind that CHWs and HIV counsellors are primarily employed by non-governmental organisations (NGOs) and not by government departments directly, it is notable that only one study designed its intervention around task-shifting to a health worker who is directly employed by a public health facility. This has implications for our understanding of how mental health interventions might be integrated into existing primary health care structures in viable, effective and sustainable ways. The roles that specialists will and can be expected to play in the conceptualisation, development, delivery and management of task-shifted interventions is not made clear in any of the studies. In their aims to develop and test workable models, the results from projects such as PRIME, MIND and COBALT will be highly relevant in this regard.

### Training and supervision

Similarly, details concerning this aspect of the studies were often not well described. The type of training that counsellors received was necessarily determined by the kind of intervention provided. Length of training ranged from 12 hours to four months. The details of the training were frequently not reported on and some researchers provided more information than others on how training was conducted and managed. Only two of the studies<sup>39,46</sup> provided "booster" training sessions during the course of the intervention delivery. One study<sup>43</sup> reported using the apprenticeship model of training, a model that has been shown to provide a useful framework for the training and delivery of task-shifting interventions in LMICs.<sup>68</sup>

All studies reported having delivered some form of supervision but, again, descriptions thereof varied from study to study. Details regarding the frequency of supervision contact, by whom the supervision was delivered, and the format thereof were seldom reported on. Furthermore, supervision often appeared to serve the function of monitoring providers and ensuring fidelity to the intervention, and was not commonly referred to as a means of providing emotional support. Descriptions of other methods of ensuring protocol adherence included audiotaping sessions for review by the researcher,<sup>46</sup> capturing of data on mobile phones,<sup>41</sup> reviewing attendance records,45 and "in vivo" observations of sessions.<sup>42</sup> This is perhaps another area of research on task-shifting that requires further attention, especially in the light of the development of an integrated mental health service that will require specialists to supervise non-specialists. A better understanding of what comprises effective, supportive and fidelity-ensuring supervision is needed.

#### Formats and sites of delivery

Despite their practical utility and social benefits, only two interventions had group formats (both led by the same principle investigator).<sup>40,43</sup> The remaining seven studies relied on one-to-one intervention contact. In terms of delivery sites, three of the interventions were delivered at participants' homes, one at an Emergency department at a district-level hospital, one at an Outpatients' department at a tertiary hospital, three at PHC centres, and one at a MOU. This reflects the versatility of task-shifting interventions, as they can be adapted to be administered in a variety of settings. This also has significant implications for the integration of mental health care into primary and general health, as interventions can be designed to suit the needs of particular communities or primary health care centres.

#### Summary of results

Results across the nine studies are somewhat mixed. Those intervention studies that focused specifically on the relief of depressive symptoms as the primary outcome found significant improvements as a result of the intervention.<sup>40,43</sup> Results for those concerned with substance-use disorders were less consistent: one reported significant reductions in substance use,<sup>46</sup> another reported no statistically significant improvements as a result of the intervention,<sup>42</sup> while a third saw significant reductions in tobacco use but not in alcohol or drug use.<sup>46</sup> Of some interest is that the latter found a significant improvement in depressive symptoms, as the study's secondary outcome. The two large home-visit studies<sup>41,45</sup> with multiple health outcomes aimed at pregnant women found that the interventions impacted on overall mother and infant well-being, but only one reported significantly reduced depression symptoms.<sup>45</sup>

The study attending to mother-infant interactions<sup>38</sup> found improved quality of interactions between dyads, but no lasting reduction in maternal depressive symptoms, also a secondary outcome.

## Conclusion

The call to develop equitable mental health services in South Africa. a country with profound economic disparities, is one that researchers are clearly taking seriously. This research has contributed to informing the development of a national mental health policy framework that is consistent with the WHO's recommendations in this regard, and that promises to provide invaluable legislative support for innovative approaches to making services more accessible. Task-shifting as a viable strategy for closing the treatment gap is a burgeoning yet increasingly urgent area of enquiry. Despite the lacunae described, the successes of this research are manifold. Firstly, the feasibility and acceptability studies represent clear efforts to carefully explore the relevance and applicability of interventions adapted to South African contexts. Secondly, the scale-up to RCTs is evidence of South African academic effort and investment in quality and robust research. Thirdly, a great deal of work has been done to test various intervention modalities and the results to date provide some support for the adaptation of manualised, evidence-based interventions to South African contexts. Finally, the move towards investigating an integrated approach to mental health care promises to yield essential data about how these innovations for equitable services might be feasibly and viably accommodated by the public health system.

With a view to future research, areas that require more thorough investigation primarily pertain to the human resources that are utilised in the delivery of interventions. Interventions cannot be thought of simply in terms of evidence-based manuals and protocols. They must be treated as packages that also include the provider, the trainers and the supervisors, who all have essential roles to play in ensuring the effectiveness and success of an intervention. To date, the research has been concerned with establishing feasibility and developing an evidence base for particular interventions in this context. However, the interventions have often been treated as independent of the people who deliver them. Very little attention has been given to how the quality of relationships between healthcare workers and intervention recipients might have an impact on the success of a particular programme. By extension, the basic competencies required to develop successful working relationships of this kind are not currently in evidence. The lack of consideration for this aspect of the task-shifting approach could constitute a substantial barrier to effective scaling-up of services.

As such, in keeping with the IOM's recommendations for candidate core competencies, more attention should be given to the delineation of human resource cadres and the duties or tasks that can be expected of each category. Some consensus regarding characteristics, skill-sets and levels of education for each category would be useful for the conceptualisation of interventions and the competencies required of providers. In line with this, the training and supervision that providers receive should be more clearly described. Where training is concerned, it may be of value to develop and make use of a standardised basic counselling skills course that every non-specialist health worker is required to complete. In this way, the command of certain skill-sets can be assumed. Furthermore, clearer descriptions of the means to ensure fidelity to the intervention are also recommended. In tandem, supervision should not only be used as a monitoring and protocol-adherence tool. Ensuring that providers are emotionally contained and supported in their work will indirectly prevent protocol drift. Reporting supervision content and procedures, as well as by whom supervision is delivered, will answer key questions about the role that specialists might need to play in an integrated service. To this end, further investigation into the applicability of the apprenticeship model of training and supervision would prove beneficial. Other important questions that remain unanswered include those pertaining to intervention costeffectiveness, as well as methods of implementation and scaling-up of services within an integrated model.

Where policy is concerned, the findings of this review suggest that there is considerable evidence for task-shifting interventions to NSHWs, but just how these programmes might be successfully integrated into primary care systems needs more attention. Firstly, there is an urgent need to consider the development of viable and sustainable models of integrated mental health care services that can be accommodated by a developing public health system that is already overburdened. Results from studies such as PRIME and Project MIND will be highly relevant to the conceptualisation of such models, insofar as they compare horizontal and vertical models of integration. Secondly, the development of these models must necessarily incorporate careful consideration of the roles, responsibilities and scopes of practice of each cadre of health worker involved in the delivery of task-shifting interventions. In this respect, the IOM's list of Candidate Core Competencies is a valuable point of reference for the conceptualisation of models that are structured according to skill-sets and capabilities, rather than to the interventions themselves. This list is also important as a basis from which to develop formalised training programmes for NSHWs and lay counsellors. Additionally, it might be used to adjust existing training policy so as to include other health worker cadres in appropriate skills development. Thirdly, careful delineation of the roles that specialists might play within such models requires further attention. For example, the ability to provide appropriate supervision is a skill that is not typically taught in formal training settings and will necessarily require formulation. Fourthly, determining which category of specialist is most appropriate to deliver supervision of particular interventions (or other cadres) will be important. The inclusion of Registered Counsellors (Bachelor of Psychology graduates) as a category of mid-level specialist needs urgent consideration. This cadre might play an important role in the management and oversight of certain task-shifting interventions. Finally, a review of the financing policy to support the mental health care policy focus on developing district- and primary-level mental health services is required. Indeed, it is perhaps only within the context of a clearly defined model - where roles and competencies are well articulated - that we can begin to talk of task-sharing rather than task-shifting;<sup>k</sup> and to think of more collaborative and holistic approaches to addressing the mental health needs of the population.

k The concept of task-sharing might then be extended to intersectoral collaborations between government departments (for example, Health and Education), where the mental health needs of children and adolescents might be more readily addressed with programmes that are easier to regulate and monitor through places of learning.

## Acknowledgment

This review is part of a PhD study that is funded by the Medical Research Council of South Africa in terms of the National Health Scholars Programme from funds provided for this purpose by the National Department of Health.

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