

1 ***“Early in the morning, there's tolerance and later in the day it disappears” - the intersection***
2 **of resource scarcity, stress, and stigma in mental health and substance use care in South**
3 **Africa**

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17 **Abstract**

18 Stress is a challenge among non-specialist health workers worldwide, particularly in low-
19 resource settings. Understanding and targeting stress is critical for supporting non-specialists and
20 their patients, as stress negatively affects patient care. Further, stigma towards mental health and
21 substance use conditions also impacts patient care. However, there is little information on the
22 intersection of these factors. This sub-analysis aims to explore how substance use and mental
23 health stigma intersect with provider stress and resource constraints to influence the care of
24 people with HIV/TB. We conducted semi-structured interviews ($N=30$) with patients ($n=15$) and
25 providers ($n=15$, non-specialist health workers) within a low-resource community in Cape Town,
26 South Africa. Data were analyzed using thematic analysis. Three key themes were identified: 1)
27 resource constraints negatively affect patient care and contribute to non-specialist stress; 2) in the
28 context of stress, non-specialists are hesitant to work with patients with mental health or
29 substance use concerns, who they view as more demanding; and 3) stress contributes to provider
30 stigma, which negatively impacts patient care. Findings highlight the need for multi-level
31 interventions targeting both provider stress and stigma towards people with mental health and
32 substance use concerns, especially within the context of non-specialist-delivered mental health
33 services in low-resource settings.

34 **Keywords:** stress, stigmatization, addiction, global mental health, quality of care, non-specialist
35 provider

36 **Impact Statement**

37 Non-specialist health worker stress is common in low-resource settings and impacts both
38 healthcare workers and the patients they serve. Stigma towards mental health or substance use is
39 also a well-documented issue among healthcare workers. This study explores the relationship
40 between non-specialist provider stress and stigma towards mental health and substance use
41 problems, and how these may intersect to diminish the quality of patient care. It highlights the
42 need for multi-level interventions targeting both provider stress and stigma to best support non-
43 specialists to provide effective substance use and mental health services. This study has
44 implications for task-shared mental health training programs, highlighting the importance of
45 including provider stress and stigma as training targets alongside clinical knowledge and skills
46 development to ensure training leads to high quality patient care. This study also helps represent
47 the perspectives of patients receiving task-shared mental health services within the global mental
48 health literature.

49

50

51 Introduction

52 Globally, there is increasing awareness of stress and burnout, a syndrome resulting from
53 chronic work-related stress among healthcare workers (De Hert, 2020; Moss & Good, 2016;
54 World Health Organization & Burton, 2010). Stress is a particular challenge in low-resource
55 health settings, where healthcare workers face high caseloads and are expected to treat complex
56 cases in chronically understaffed and overcrowded environments (Dugani et al., 2018; Wright et
57 al., 2022). To ameliorate shortages of specialist providers, some health care teams have
58 expanded use of non-specialist health workers, including community health workers (CHWs)
59 and nurses (Jensen et al., 2022; Kigozi et al., 2020; Owuor et al., 2020; Padmanabhanunni,
60 2020). In South Africa, non-specialists were originally deployed to provide and increase
61 retention in HIV/TB care (Simelela & Venter, 2014). However, as South Africa has made
62 significant progress on treating HIV/TB, the roles and responsibilities of non-specialists have
63 expanded to include other health priorities, leaving these workers particularly vulnerable to stress
64 and burnout. For instance, a recent systematic review highlighted high levels of burnout among
65 nurses working across a range of settings in sub-Saharan Africa who were not specially trained
66 for their responsibilities (Owuor et al., 2020). Similarly, a study in the Western Cape estimated
67 that about half of CHWs working in non-governmental organizations (NGOs) indicated burnout
68 and secondary traumatic stress (Padmanabhanunni, 2020).

69 In South Africa, people with mental health (MH) and substance use (SU) concerns are
70 overrepresented in HIV and/or TB care (Janse Van Rensburg et al., 2020; Myers et al., 2021;
71 Pephrah et al., 2022). In sub-Saharan Africa, approximately 15.3% of people with HIV (PWH)
72 have comorbid major depression (Lofgren et al., 2020). In a South African sample of patients
73 with HIV, approximately 37% indicated harmful drinking and 13% indicated drug use (Kader et

74 al., 2014). Yet these patients experience limited access to mental healthcare in the public sector.
75 Crude estimates show that of uninsured South Africans who require mental healthcare in the
76 public sector, between 1-7% actually receive care (Docrat et al., 2019). This is due to limited
77 investment in MH services and shortages of MH specialists. South Africa's expenditures on
78 public MH are only about 5% of the total public health budget (Docrat et al., 2019) and as of
79 2019, there were only 0.38 psychiatrists per 100,000 people in the public sector (Wishnia et al.,
80 2019). Consequently, non-specialists are being increasingly relied upon to address gaps in the
81 public MH system, referred to as "task-sharing." This involves the shifting of MH counseling
82 from specialist providers to non-specialists (Department of Health Republic of South Africa,
83 2013; Sorsdahl et al., 2023). However, non-specialists get little training in MH/SU concerns and
84 may be poorly equipped to actually take on additional roles (Schneider et al., 2016). Providing
85 clinical services to patients that non-specialists have limited exposure to or knowledge of, such
86 as patients with MH or SU, may exacerbate provider stress (Makhado & Davhana-Maselesele,
87 2016; Regenauer et al., In Press). While the relationship between MH literacy and stress in low
88 and middle income countries is in its nascence, there is some evidence that increasing MH
89 literacy helps reduce provider stress (Agyapong et al., 2023).

90 Non-specialists in HIV/TB care also face systemic frustrations when providing MH or
91 SU care that likely impact stress. For instance, HIV care providers in South Africa reported that
92 referral processes to formal MH/SU services were unclear or time-consuming, even when such
93 referrals were to a co-located clinic (Belus et al., 2022; Sorsdahl et al., 2021). Additionally, when
94 task-sharing of MH/SU services is implemented without providing additional supports or
95 appropriate compensation to non-specialists, this can be perceived as "task dumping," increasing
96 their work-related stress (Jacobs et al., 2021; Sorsdahl et al., 2021).

97 Addressing non-specialist stress is critical not only to support their wellbeing, but also of
98 patients, as provider stress is associated with more stigmatizing behaviors, or enacted stigma,
99 towards patients (Eshun-Wilson et al., 2019; Kim et al., 2018; Román-Sánchez et al., 2022;
100 Tawfik et al., 2019). Stigma is multidimensional and has many facets, such as enacted stigma
101 (when others treat stigmatized groups with prejudice or discrimination), internalized stigma
102 (when stigmatized individuals view themselves with lower value or worth), or anticipated stigma
103 (expectations from stigmatized individuals that others will discriminate against them), making it
104 complex to study (Pescosolido & Martin, 2015). This conceptual complexity also makes it
105 important to distinguish what types of stigma are relevant to a given situation (Griffith & Kohrt,
106 2016). Research among adults living with HIV in Ethiopia found that high workload among staff
107 led to a lack of empathy and rushed work, as reported by patients, which deterred patients from
108 accessing care, possibly demonstrating enacted and internalized stigma (Bezabhe et al., 2014).
109 Further, stigma from non-specialists towards PWH and TB with MH or SU problems also exists
110 independently of provider stress levels (Regenauer et al., 2020; van Boekel et al., 2013). Several
111 studies in South Africa have found that non-specialists are reluctant to screen for and intervene
112 with MH or SU problems due to stigmatizing beliefs (Myers et al., 2019; van Boekel et al.,
113 2013). For instance, a qualitative study identified non-specialist stigma towards people with MH
114 concerns as a barrier to non-specialists taking on MH care duties in integrated primary care
115 settings (Mendenhall et al., 2014). In our prior work with non-specialists ($n=17$), which included
116 CHWs and nurse supervisors, the average baseline Social Distance Scale (SDS) scores (possible
117 range 6 to 24) towards patients with depression or SU were 7 and 14, respectively (Regenauer et
118 al., In Press). These findings indicate the likelihood of higher levels of stigma towards patients
119 with SU, which may be a particular barrier for these patients.

120 Therefore, while stress and stigma may independently impact quality of care for patients
121 with MH/SU conditions, they are also likely interrelated. Yet, little is known about how non-
122 specialist stress, stigma and resource challenges affect their care for PWH and/or TB in South
123 Africa. Being aware of the challenges faced by non-specialists in delivering services for patients
124 with MH/SU concerns, including patient perspectives, could inform task-sharing programs going
125 forward. This paper aims to qualitatively explore how stress and stigma interplay to influence
126 non-specialist-delivered MH/SU care for PWH and/or TB in the South African healthcare
127 system, from both patient and non-specialist provider perspectives.

128 **Methods**

129 Semi-structured, individual interviews ($N = 30$) were conducted between February and
130 June 2021 with patients ($n = 15$) and non-specialist health workers ($n = 15$) from HIV/TB and
131 SU treatment clinics in low-income areas with high HIV/TB and SU burden in Cape Town,
132 South Africa. The primary aim of the parent study was to inform the development of an
133 intervention to help reduce MH/SU stigma among providers and improve engagement in HIV
134 care for PWH with co-occurring MH or SU problems (Myers et al., 2024). The interview guide
135 focused on stigma (primarily enacted stigma) and strategies for stigma reduction among non-
136 specialists (Regenauer et al., In Press; Rose et al., 2023). Enacted stigma can be defined as
137 “negative attitudes expressed by members of the public that are experienced by an individual
138 with devalued characteristics” (Molina et al., 2013). Purposive sampling (Palinkas et al., 2015)
139 was used to recruit participants who could provide insight relevant to the study aims. Our sample
140 size ($N = 30$) was expected to meet criteria for theoretical saturation (Hennink & Kaiser, 2022),
141 and coders identified that saturation had been reached at this point as there were no major themes

142 that were newly emerging once all transcripts had been reviewed and analyzed. Parent study
143 aims were to explore patient and non-specialist provider perspectives on their experiences and
144 attitudes on working with patients with MH/SU concerns at HIV/TB clinics. Unprompted,
145 participants also spoke about resource limitations and stress as it related to caring for these
146 patients, which led to the current sub-analysis.

147 *Participants*

148 The Western Cape Provincial Department of Health (WCDoH), which oversees health
149 services in the Western Cape Province, assisted in identifying non-specialists in HIV care to
150 approach for this study. The HIV care cascade can be described as screening and diagnosis,
151 linkage to care, retention in care, initiation of antiretroviral therapy (ART), retention on ART and
152 viral suppression (Mugglin et al., 2021). Different providers play key roles in select areas of this
153 cascade, with nurses involved in diagnosis, linkage to care, and initiation on ART whereas
154 CHWs are involved in the parts of the cascade surrounding retention in care. The scope of non-
155 specialist interaction with patients varies, ranging from direct interaction within the clinic
156 (nurses), to home visits (CHWs), to supervisory roles (program managers). Nurses are involved
157 in diagnosis, linkage to care, and initiation on antiretroviral therapy (ART) whereas CHWs are
158 involved in adherence counselling and support and retention in care. Non-specialists were
159 included if they were: a) directly involved in community-based HIV care services; b) a facility-
160 based HIV provider interacting with community-based teams; c) managed community-based
161 HIV services; or d) involved in SU treatment. All non-specialists worked for the state or in non-
162 profit organizations receiving public funding for HIV care delivery, were ≥ 18 years old, and

163 were able to provide informed consent and complete interviews in isiXhosa or English, the main
164 languages spoken in the target communities.

165 Referrals from non-specialist provider participants were used to purposively identify
166 patients. Patients were included if they self-reported: 1) being ≥ 18 years old; 2) living with HIV;
167 3) struggling with HIV care engagement (e.g., missed appointments); 4) active SU (i.e., ≥ 2 on
168 the AUDIT-C; (Bush et al., 1998; Morojele et al., 2017) or using ≥ 1 illicit drug in the past 3
169 months) or suspected depressive symptoms (≥ 2 on the PHQ-2; (Gilbody et al., 2007), adapted
170 from the PHQ-9 which had been previously validated in South Africa (Bhana et al., 2015)) and
171 were (5) able to complete informed consent and interviews in isiXhosa or English. Table 1
172 provides an overview of participant demographics.

173 *Procedures*

174 Interviews were conducted by trained research assistants (RAs) in isiXhosa or English
175 based on participant preference. Prior to the interview, RAs obtained written informed consent
176 and collected demographic information from participants. Using a semi-structured interview
177 guide, RAs asked participants about experiences of stigma around HIV, TB, SU, and MH, as
178 well as specific feedback to inform the development of a MH/SU stigma-reduction intervention
179 for providers. Patient and stakeholder interview guides were developed separately in both
180 isiXhosa and English. The Link and Phelan stigma framework, the Situated Information
181 Motivation Behavioral Skills Model of Care Initiation and Maintenance, and the Consolidated
182 Framework for Implementation Research informed the development of the interview guide
183 (Damschroder et al., 2009; Link & Phelan, 2001; Rivet Amico, 2011).

184 Interviews were audio-recorded and had an average duration of 45 minutes. Participants
185 were compensated 150ZAR (about \$10 USD) in grocery vouchers upon interview completion.
186 Audio-recordings conducted in isiXhosa were translated into English and then all interviews
187 were transcribed verbatim using Otter.ai (Corrente & Bourgeault, 2022). Transcripts were double
188 checked for quality assurance and were imported to NVivo (NVivo, 2020) for coding.

189 All procedures were approved by the Human Research Ethics Committee at the South
190 African Medical Research Council (EC039-9/2020) with an Institutional Review Board
191 Authorization Agreement with the University of Maryland.

192 *Data Analysis*

193 We used a hybrid inductive-deductive approach for codebook development and analysis.
194 The parent study had specific aims to use interview coding to guide the development of a stigma
195 reduction intervention and thus our approach was partially deductive. However, during
196 interviews and upon transcript review it became apparent that participants were also raising other
197 themes, such as those focused on provider stress, so we also took a partially inductive approach
198 to codebook development (Fereday & Muir-Cochrane, 2006; Kiger & Varpio, 2020). Given the
199 focus of the parent study, there was less direct probing on resource scarcity and stress, though
200 both topics were organically brought up by most participants and featured prominently
201 throughout the interviews. An initial codebook was developed by using the interview guide and
202 by open coding of several transcripts. Specifically, South African study team members with deep
203 knowledge of the study context and US-based team members held group discussions of several
204 open-coded transcripts to identify any additional inductive codes not already included in the
205 interview guide. These codes were then added to create the final codebook, which was then

206 piloted and presented back to the larger team for further refinement before coding. Transcripts
207 were coded by two independent coders, who held weekly meetings to review and resolve coding
208 discrepancies. Local South African team members were available throughout the coding process
209 to provide input on interpretation and to discuss main themes. The Inter-Rater Reliability (IRR)
210 among coders was 0.88. This was above the IRR of 0.80 set prior to the coding process, which is
211 considered adequate as supported by the literature (O'Connor & Joffe, 2020).

212 **Results**

213 The sample was evenly distributed between patients ($n=15$) and non-specialist providers
214 ($n=15$). Non-specialist providers included nurses, CHWs, counselors, and program managers.
215 The average age of patients was 37.5 years ($SD = 11.1$) and most patients were Black African
216 ($n=12$) and female ($n=10$). The average age of providers was 45.5 ($SD = 8.6$). Most providers
217 were Black African ($n=13$) and female ($n=13$), reflecting the demographics of the broader non-
218 specialist workforce in this setting. Most providers had a University/Technicon degree ($n=9$),
219 one had a doctoral degree or equivalent, one had completed high school, and four had not
220 completed high school. There was a range of provider experience, with 40% of providers having
221 worked at their current position for less than a year and about 33% of providers having worked at
222 their current position for over five years.

223 We identified three main themes: (1) staff resource constraints drive stress and affect
224 patient care, (2) in the context of limited time and stress, providers view patients with MH or SU
225 concerns as more demanding, and (3) stress contributes to stigma and stigma exists independent
226 of stress. Below we describe each of these themes.

227 ***Theme 1: Overall, staff resource constraints drive stress and affect patient care***

228 Non-specialist providers mentioned understaffing as an issue. Within clinical
229 interactions, some patients shared that they felt clinical information regarding HIV (e.g., HIV
230 medication options, side effects) was not explained fully to them, and that it was difficult to
231 obtain answers to their questions, suggesting that staff may be too overloaded with other work to
232 spend time providing detailed information to patients.

233 *“... Their explanation, it's half - it's not complete. All they say is when you start your*
234 *treatment you will experience side effects, that's all they say. And so it made me to*
235 *become frustrated because I had questions and it was difficult for me to ask those*
236 *questions because they were also not specific...”*

237 – Male, Patient, 39

238 Participants reported that staffing constraints were an issue for MH care because of the shortage
239 of trained professionals available. Participants described how lengthy waits for specialist
240 referrals adversely impacted patient retention.

241 *“And the psychiatrist there like maybe they had a lot of times also they had to join a*
242 *queue. Maybe the plan might be seen after two months, and that will be late. Because*
243 *they say, "Ok, we are giving you an appointment for your evaluation next year" and the*
244 *clients tend to also give up hope on it also.”*

245 - Male, Registered Nurse Counselor, 31

246 Both patients and providers thought these staffing constraints contributed to stress and in turn
247 affected clinical care.

248 *“Yes, the way they treated me, the way they do things... when you go there, you go there*
249 *knowing that you will be treated this way and you also go there knowing that you may be*
250 *helped, you may not be helped, you may be sworn at, you expect anything to happen. You*
251 *go there with the body that is bullet proofed.”*

252 - Male, Patient, 39

253 *“So I think early in the morning, there’s tolerance [from the non-specialists towards*
254 *patients] and later in the day it disappears, so it’s directly related to what people need to*
255 *do. I think for me,[...], it’s how much pressure is on the clinic?”*

256 - Male, Program Manager, 54

257 ***Theme 2: In the context of limited time and stress, providers view care for patients with MH or***
258 ***SU concerns as more demanding***

259 Non-specialist provider participants described that when clinic providers are already
260 pressed for time, they experience patients who require more time and support, namely those with
261 MH or SU concerns, as particularly challenging. With an already exhaustive workload and lack
262 of support, providers may feel less inclined to go the extra mile for patients that need additional
263 care and/or referrals, such as those with MH or SU problems.

264 *“But if you tell me: “[Name], you now need to put in a special program for mental health*
265 *in your clinics”, Then I’d say: “Don’t I have enough work already? Are our people not*
266 *already being overworked? You going to make me now depressed by ordering me to do*
267 *that”. ”*

268 - Male, Program Manager, 54

269 Another provider highlighted the difficulty of coordinating care with additional staff
270 members for patients with MH or SU concerns.

271 *“You know...that these are the clients you have booked for the doctor. The HIV care*
272 *clerk or Substance abuse [clerk] must take out the files on time, and looking up for a*
273 *folder make people become irritated that "We don't see your folder." All of that takes time*
274 *for the client to be seen and we don't...we fail to plan and strategize...So it is important*
275 *that we work together, Clerk, Therapist, Sister [nurse], CHW and all of us, we need to*
276 *work together. I think that strategy could work too.””*

277 - Female, Counselor, 37

278 Some patients also believed that their cases were perceived as too time consuming or
279 burdensome for staff, leading to provider impatience.

280 *“...they (CHWs) should instead be patient and they should try and find out the exact*
281 *problem, where's the root of the [SU/MH] problem”*

282 - Male, Patient, 39

283 In addition to increased logistical challenges with care, non-specialist providers reported that
284 many staff were unfamiliar with MH/SU conditions, effective treatments, and referral options,
285 which led to hesitation to work with patients with MH or SU concerns. One provider described
286 how this lack of knowledge led to the desire to refer patients with MH/SU concerns to other
287 providers.

288 *“...Sometimes you see, it's being clueless you see?...they do not know what to do with this*
289 *person. Like someone would say, “I'm going to connect you with the Social worker” you*
290 *see?”*

291 - Female, Counselor, 37

292 ***Theme 3: Stress contributes to stigma and stigma exists independent of stress***

293 Several non-specialist providers described experiences where they had seen clinic staff,
294 frustrated by limited resources and unsure how to help patients, shouting at or making fun of
295 patients with MH or SU concerns. Participants connected provider resistance to engaging in the
296 extra effort potentially needed to care for patients with MH/SU problems to stigmatizing beliefs
297 that these patients were intentionally difficult.

298 *“I am saying that it is very common because there is very little understanding to why they*
299 *are doing what they are doing, there is always an assumption that they are*
300 *troublemakers, without really looking into why they are in the situation that they are in.”*

301 – Female, Program Manager, 53

302 A CHW highlighted how patients often prefer to work with them instead of clinic nurses because
303 of the way the nurses treat patients.

304 *“HIV and TB patients...they prefer that they come in, get attended to quickly get their*
305 *medication... So you'd find in these cases that they would actually choose us, they prefer*
306 *us to assist them in this case, than the nurses... And then now the nurses become very*
307 *harsh towards them. And for us, with us we understand the situation that they are going*
308 *through, we know the pain that they are going through, whatever struggles that they are*
309 *going through.”*

310 – Female, Community Health Worker, 43

311 However, participants also described how stigma is influenced by factors other than work-related
312 stress. A clinic program manager gave an example of how a coworker used stigmatizing
313 language towards patients with MH concerns.

314 *“You’ll find out that someone will go to the clinic and this person is really mentally*
315 *challenged, and you will hear a sister saying “Yhoo...this one didn’t treat the gonorrhoea*
316 *and that is why today it has come to his/her head, it’s making him/her go crazy”, I mean*
317 *such things! “This one is not mentally ill, it’s those STI’s he/she did not treat”, I mean!*
318 *So we cannot leave ourselves behind and say, “we are not stigmatizing these people”, we*
319 *also - health care workers - we do really take part in spreading this stigma.”*

320 - Female, Program Manager, 40

321 One patient described negative feelings they experienced after harsh treatment from clinic staff
322 after having missed appointments or adherence difficulties.

323 *“You come here and maybe you’ve skipped on your month and then the person would*
324 *start to judge you and swear at you and say this and that...you want to die.”*

325 - Male, Patient, 44

326 Specific to patients using substances, participants reported that providers may be fearful of
327 patients due to stigmatizing beliefs that patients with SU problems were inherently dangerous
328 and unpredictable.

329 - *“...like, what if this person whose got substance issues, would like hurt me? [...] and*
330 *then if you have those thoughts and you act along those thoughts , the person will*
331 *easily pick it up that you ... don’t like what you’re doing and they will end up getting*
332 *a leeway to hurt you. Because they don’t want you because you don’t want them.*

333 - Female, Program Manager, 47

334 One clinic program manager explicitly described the clinic setting as exhibiting “structural
335 stigma”:

336 *“So I think in that sense, there is [...] what we call it structural stigma, the structure
337 don't like people that's slow or don't like people that can't look after themselves.”*

338 - Male, Program Manager, 54

339 Among participants, primarily only non-specialist provider participants used the
340 terminology “stigma” when discussing negative treatment of patients with MH/SU concerns.
341 Instead, patients expressed discontent regarding providers talking about them to others, providers
342 being “rude”, and feeling as though they are being “treated differently.” One patient described an
343 instance when a non-specialist provider was making jokes about their TB and depression.
344 However, the patient then said that they felt that the non-specialist provider “remained
345 professional” and that these interactions did not bother them. This suggests that patients may be
346 acclimated to this behavior or are justifying it so that it will be less hurtful to them.

347 **Discussion**

348 In an HIV-care setting in Cape Town, South Africa, both patient and non-specialist
349 providers described the lack of human resources in public health care which enhanced work-
350 related stress for non-specialists and contributed to their lack of time for higher-need patients.
351 These participants also described non-specialist stigma towards MH/SU concerns and the ways
352 in which stress influences stigma while acknowledging that stigma occurs independently of
353 stress. Stress among non-specialists contributes to enacted stigma, however stigma may be pre-
354 existing prior to the onset of stress, as MH/SU are well known to be stigmatized across contexts,

355 including very high resource ones (Wogen & Restrepo, 2020). This is consistent with the prior
356 literature in South Africa that the wellbeing of healthcare workers is an important aspect of
357 delivering quality care programs, and that being overworked and stressed can lead to less
358 effective communication from non-specialists to patients (Jensen et al., 2022). Findings suggest
359 that non-specialist stress must be addressed to ensure they are able to provide adequate patient
360 care in the context of task-shared MH/SU services.

361 Notably, while provider wellness may typically be conceptualized as a systems challenge
362 and stigma as an individual level outcome, both stress and stigma can be addressed at multiple
363 levels (Rollins et al., 2021). Increasing funding and resource allocation for integration of task-
364 shared MH/SU services in HIV/TB services may help overcome staffing constraints and stress
365 among staff responsible for these services (Myers et al., 2022; Sorsdahl et al., 2023). Effective
366 and thorough training of staff on MH/SU may make treatment of these patients feel more
367 manageable to staff and thereby reduce stress. If staff are better trained, they may be more
368 capable and feel more confident in their ability to provide quality care to all patients (Agyapong
369 et al., 2023; Jacobs et al., 2021; Sibeko et al., 2018). However, there is some evidence that
370 reducing stigma does not reduce stress (Román-Sánchez et al., 2022) and while additional
371 training on new clinical topics can be perceived as helpful, it can also be perceived as “task
372 dumping” if not accompanied by adequate supports and resources for staff to implement this new
373 knowledge (Jacobs et al., 2021). Greater attention to role clarification, including aspects of
374 MH/SU interventions that are within the remit of non-specialists, can help reduce scope creep
375 and perceptions of task dumping. There are existing individual interventions and coping
376 strategies for stress and burnout that researchers often include within task-shared MH trainings
377 (Simms et al., 2023). Individual coping strategies for non-specialists to adopt may include

378 spending quality time with friends and loved ones, religious practice and practicing self-care (De
379 Hert, 2020). However, these individual strategies are not sufficient to address the scope of this
380 issue; structural and systemic drivers of these stressors must also be addressed.

381 Our findings confirm that MH/SU stigma among non-specialists leads to differential
382 treatment of patients with MH/SU concerns even in the absence of non-specialist stress.
383 Therefore, interventions to reduce non-specialist stress are unlikely to eliminate non-specialist
384 stigma towards patients with MH/SU concerns, highlighting the need for MH/SU stigma
385 reduction interventions targeting non-specialists in this setting. Initially stigma reduction
386 interventions in low- and middle-income countries focused on HIV-related stigma (Rao et al.,
387 2019), however trainings intended to reduce stigma towards MH/SU have also been developed
388 and have shown to be effective (Kaiser et al., 2022; Kohrt et al., 2022; Myers et al., 2024;
389 Regenauer et al., In Press). These trainings tend to challenge stigmatizing attitudes and beliefs
390 towards patients with SU/MH, addressing judgmental communication styles, and providing the
391 opportunity for non-specialists to have direct and indirect contact with people who have lived
392 experience of MH and/or SU concerns.

393 Further, while patients of all identities must navigate patient-provider hierarchies within
394 the healthcare system (Berndt & Bell, 2021; Scott et al., 2021), this can be particularly
395 detrimental for patients such as those with HIV, MH, and/or SU because of these already
396 stigmatized identities (Kwame & Petrucka, 2020; Ondenge et al., 2017). Our findings also
397 support the need for greater involvement of people with lived experience (PWLE) in anti-stigma
398 programs delivery and in healthcare more broadly (Thornicroft et al., 2022; World Health
399 Organization, 2023). Their perspectives are critical to shaping provider behaviors in patient-

400 centered and non-stigmatizing ways. PWLE should be involved in all levels of anti-stigma
401 programs and placed in leadership roles, as was recently recommended in the *Lancet*
402 *Commission on Stigma and Discrimination* (Thornicroft et al., 2022). Including PWLE is a key
403 component of program effectiveness, and having these individuals in leadership roles can help
404 reduce self-stigma and may be impactful on their recovery journey (Thornicroft et al., 2022).
405 Patient internalized and anticipated stigma must also be addressed alongside provider stigma,
406 and research has shown that interventions targeting stigma may be effective for people living
407 with HIV in various settings (Kalichman et al., 2019; Rao et al., 2012).

408 Findings highlight several areas of future research that have the potential to support more
409 sustainable task-shared MH/SU programs and help non-specialist providers provide better
410 quality care. Future task-shared MH/SU intervention studies should include outcomes focused on
411 stress and stigma at multiple levels, while also working to identify necessary health systems
412 interventions to address resource scarcity. Stigma interventions should include addressing
413 enacted stigma from providers as well as internalized stigma experienced by patients. Inclusion
414 of these outcomes simultaneously within studies would allow for a better understanding of how
415 these constructs are interrelated and what implementation and intervention strategies can be used
416 to address stress and stigma together within training and supervision programs for non-specialists
417 taking on task-shared MH/SU care.

418 Findings should be interpreted in the context of study limitations. This study uses
419 qualitative data collected to help inform the development of a stigma reduction intervention, so
420 prompts included less direct probing on resource scarcity and stress, though both topics were
421 organically brought up by participants and featured prominently throughout the interviews. The

422 use of the inductive-deductive approach allowed authors to ensure that themes were driven by
423 interviews instead of by a pre-set coding framework related only to the primary objective of the
424 study (Fereday & Muir-Cochrane, 2006). Although not all participants spoke about these themes,
425 the majority did, and further, frequency is not typically used as a metric for importance in
426 qualitative research (Glaser, 2017). Many participants, particularly patients, did not actually use
427 the term stigma. When one participant did use the term “structural stigma”, there was no
428 additional context that described this individual’s interpretation of this term which is important
429 to note. However, this participant was a program manager with a doctoral degree, suggesting
430 they may be familiar with the term. Our sample also includes perspectives from a relatively small
431 sample of non-specialists and patients, and we do not have specific information on mental health
432 trainings providers may have had in the past. In the future, mixed methods research to explore
433 resource scarcity, stress, and stigma in larger samples could contribute to furthering the
434 understanding of how these three phenomena interact.

435 **Conclusion**

436 Resource constraints, non-specialist provider stress, and stigma towards MH/SU
437 conditions are common in health systems. As researchers continue to explore methods for
438 supporting sustainable, high-quality task-shared MH/SU services within resource limited
439 settings, a better understanding of the constructs of stress and stigma and their interaction among
440 non-specialist providers will be critical. Such an understanding can help identify coordinated
441 interventions targeting both stress and stigma that can support non-specialists in taking on task-
442 shared MH/SU care and improve the quality of services. Further, a better understanding of how
443 resource constraints drive stress and impact care quality can help shape advocacy for more
444 resources for task-shared MH/SU care globally.

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448 **Author Contribution Statement**

449 Abigail C. Hines was one of the two coders, helped conceptualize key themes, and wrote the
450 initial draft of the manuscript. Alexandra L. Rose oversaw codebook development and analysis,
451 guided the writing process (e.g., supporting conceptualization of themes, setting timelines), and
452 provided in-depth comments and feedback on the manuscript. Kristen S. Regenauer supported
453 study operations, contributed to codebook development, and provided feedback on the
454 manuscript. Imani Brown was one of the two coders, helped conceptualize key themes, and
455 contributed feedback to the manuscript. Kim Johnson and Jessica Bonumwezi supported study
456 operations, contributed to codebook development, and provided feedback on the manuscript.
457 Sibabalwe Ndamase and Nonceba Ciya conducted the interviews from which these data were
458 drawn, contributed to codebook and theme development, and provided feedback on the
459 manuscript. Jessica F. Magidson and Bronwyn Myers obtained funding, led the overall project,
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465 **Conflict of Interest Statement**

466 Conflicts of Interest: None

467 **Ethics statements**

468 Ethical approval was obtained from the South African Medical Research Council's Human
469 Research Ethics Committee with an Institutional Review Board Authorization Agreement with
470 the University of Maryland.

471 **Data availability statement**

472 Data is available upon reasonable written request to the corresponding author.

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763 Table 1

764 *Demographics of the Sample*

Variable	Total	Non-specialists	Patients
	(<i>N</i> = 30)	(<i>n</i> = 15)	(<i>n</i> = 15)
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)
Age, <i>M</i> (<i>SD</i>)	41.5 (10.61)	45.5 (8.6)	37.5 (11.1)
Race, % (<i>n</i>)	83.3 (25)	86.7 (13)	80.0 (12)
Identified as female, % (<i>n</i>)	76.7 (23)	86.7 (13)	66.7 (10)
Education (completed high school or above), % (<i>n</i>)	53.3 (16)	73.3 (11)	33.3 (5)
Prior MH/SU training, % (<i>n</i>)	--	66.7 (10)	--
Time in position, % (<i>n</i>)	--	40.0 (6)	--
0-6 months	--	20.0 (3)	--
6-11 months	--	20.0 (3)	--
1-3 years	--	20.0 (3)	--
3-5 years	--	6.7 (1)	--
Over 5 years	--	33.3 (5)	--

MH or SU-related problems	--	--	100 (15)
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