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The acceptability of antidepressant treatment in people living with HIV in Malawi: A patient perspective

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Abstract

Depression is common among people living with HIV (PLWH). Measurement-based care models that measure depression severity and antidepressant side effects, and use an algorithm to guide antidepressant prescription by non-specialized health workers represent an evidence-based treatment for severe depression in sub-Saharan Africa. We conducted in-depth interviews from June to December 2018 with eleven patients enrolled in Project SOAR-Mental Health, a pilot project integrating depression treatment into HIV care in Malawi. Patients treated with amitriptyline or fluoxetine participated in interviews exploring antidepressant acceptability through patient knowledge, side effect severity, pill burden, adherence, perceived efficacy, and tolerability. Patients described a lack of detailed antidepressant education from their providers. Variable, typically self-limiting side effects were reported from both amitriptyline and fluoxetine. While most side effects were mild, three patients reported functional impairment. Patients reported

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Ethics approval and consent to participate

The protocol was approved by the National Health Sciences Research Committee of Malawi (NHSRC) and the Biomedical Institutional Review Board (IRB) of the University of North Carolina at Chapel Hill. All research activities adhere to Malawian and US ethical standards for research in human subjects. Written informed consent was obtained from every participant.

Disclosure statement

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high adherence, though the additional pill burden was a challenge. Most patients found the antidepressants efficacious, tolerable, beneficial and acceptable. Although patient psychoeducation is notably lacking as a facet of clinical management, antidepressant prescription by primary care providers appears acceptable for comorbid severe depression in PLWH initiating HIV care in sub-Saharan Africa. Health workers should be mindful of dosing to minimise side effects and considerate of the additional pill burden.

Trial registration: ClinicalTrials.gov ID [NCT03555669]. Retrospectively registered on 13 June 2018.

Keywords

Depression; antidepressants; acceptability; HIV; qualitative research

Introduction

Depression is a common comorbidity among people living with HIV (PLWH) and the implications for HIV care are well documented, with depression frequently being associated with poor HIV care engagement and outcomes (Abas et al., 2014; Bernard et al., 2017; Kulisewa et al., 2019; Meffert et al., 2019; Slabbert et al., 2015; Watkins et al., 2011). Efforts are being made in sub-Saharan Africa (SSA) to address this high burden of depressive disorders in PLWH (Kulisewa et al., 2019; Lofgren et al., 2018). These accelerated efforts typically use task-shifting approaches where non-specialized health workers deliver evidence-based psychosocial counselling to address the detrimental effects of depression (Chibanda et al., 2011; Nakimuli-Mpungu et al., 2015). However, not all SSA settings have the capacity to deliver psychosocial interventions, which are human resource intensive, demand a degree of training and supervision, and require physical space and time commitment in often busy clinic settings (van Luenen et al., 2018). Antidepressant prescription by primary health workers, using algorithms known as measurement-based care models, is an effective treatment alternative, especially for the treatment of severe depression, in settings where psychosocial counselling is unfeasible or unsustainable due to structural barriers (Adams et al., 2012; Eshun-Wilson et al., 2018; Gaynes et al., 2015; Ngo et al., 2015). With measurement-based care, providers use validated screening tools, such as the Patient Health Questionnaire-9 (PHQ-9), to measure depressive severity, antidepressant side effects, and adherence while following an algorithm to guide antidepressant prescription (e.g. maintain dose, increase dose, address side effects, or switch medication) (Hong et al., 2021; Morris et al., 2012).

While there is a growing body of literature supporting the acceptability and efficacy of psychosocial counselling approaches, less is documented about the acceptability of antidepressant use in PLWH (Pence et al., 2014). PLWH with comorbid depression are a unique population that are more likely to encounter antidepressant-antiretroviral treatment (ART) drug interactions, side effects, and challenges of long-term pill burden due to the need for lifelong adherence to ART (Krentz et al., 2012; Watkins et al., 2011; Yanofski & Croarkin, 2008). For HIV negative individuals with depressive disorders, various studies estimate that 50–66.6% of individuals are poorly adherent and default from antidepressant therapy within six months for varied reasons including forgetfulness, side effects and poor

patient education (Rao et al., 2017; Sansone & Sansone, 2012). However, a solitary South African study suggests the rates of poor compliance to antidepressant treatment are likely higher in PLWH than in individuals not living with HIV (Slabbert et al., 2015). While under-studied, these findings underscore the need for further research and the importance of expanding access to acceptable, antidepressant services for PLWH to improve both HIV and mental health outcomes.

A growing number of antidepressant trials and task-shifted studies in SSA have demonstrated effectiveness and feasibility of antidepressant management for PLWH and comorbid depression (Lofgren et al., 2018). However, in the era of patient-centred care, understanding the patient's perspective is crucial in developing therapeutic alliances that will sustain the patient's engagement in care. The scarce literature available on antidepressant use in PLWH largely details researcher and provider perspectives, with the concept of 'acceptability' being contextualised as drug adherence and retention rates, rather than the direct exploration of the patient's perception of the agreeableness or palatability of the medication regimen (Lofgren et al., 2018; Proctor et al., 2011). Evaluating the acceptability of antidepressants through an exploration of antidepressant side effects, tolerability, pill burden and perceived efficacy from the perspective of the patient would make a significant contribution to our understanding of the viability of antidepressants as an alternative therapy for comorbid severe depression in PLWH.

Project SOAR-Mental Health (SOAR-MH) was an implementation science study conducted in Malawi between April 2017 and November 2018 that evaluated the impact of a depression treatment programme on HIV and depression outcomes in a population of PLWH who had comorbid depression (Stockton et al., 2020; Udedi et al., 2018, 2019). In this project, PLWH were screened for depression using the PHQ-9, and those that had elevated scores (>5) diagnosed as having depressive symptoms. After the launch of the intervention, 58 patients were treated with antidepressants using measurement-based care after being screened with the PHQ-9. As part of the evaluation, a small cohort of these 58 patients participated in qualitative interviews that focused on the patients' views around the acceptability of antidepressants. While many facets of HIV care have been thoroughly studied and are well understood, this paper will address a notable gap in the research on acceptable patient-centred interventions for comorbid depression in PLWH by describing patients' experiences of and perspectives on antidepressants.

Materials and methods

Study design

This phenomenological qualitative study was part of a larger process-evaluation of SOAR-MH. Here, we focus on understanding the acceptability of antidepressants as a treatment modality by exploring the perspectives and experiences of PLWH who had comorbid depression and started antidepressants.

Study setting, population and sample

This study was nested within a longitudinal pilot programme that evaluated the implementation and impact of depression screening and management on HIV and depression outcomes (Stockton et al., 2020; Udedi et al., 2018, 2019). The pilot programme, SOAR-MH, was conducted at two peri-urban, primary care ART clinics in Lilongwe district, Malawi.

After the launch of the intervention, patients newly diagnosed with HIV were screened with the PHQ-9. Patients identified as having moderate or severe depression (PHQ-9 scores ≥ 10) were initiated on either amitriptyline or fluoxetine, often depending on antidepressant availability. The primary health workers (non-specialist nurses and clinicians who provide HIV care at the ART clinics) were trained to prescribe and titrate antidepressant doses using measurement-based care. This qualitative study was conceptualised to enrol 16 patients (8 patients who had received sustained treatment with amitriptyline, 8 patients who had received sustained treatment with fluoxetine) through convenience sampling. However, due to implementation challenges, such as antidepressant stock outs and health worker practices, none of the 58 patients who ever received antidepressants after the launch of the intervention were able to receive a sustained prescription of antidepressants (Stockton et al., 2021, 2020). High patient attrition from ART clinical care at the study sites further hampered patient recruitment for this qualitative study. Consequently, a sample of 11 patients who had received at least one 30-day prescription of either amitriptyline or fluoxetine was achieved over the qualitative study period of June to December 2018.

Data collection process

Patients prescribed antidepressants were identified at follow-up ART visits and invited to participate in the study. Consenting participants were interviewed in Chichewa, the most widely spoken local language in Malawi, by a Malawian woman unaffiliated with the intervention, with a background in qualitative research. The interviewer conducted the interviews referencing a semi-structured interview guide drafted by the research team. The interview guide explored various dimensions of the acceptability of the prescribed antidepressant from the patient's perspective, capturing the patient's understanding of the indication for antidepressant use, antidepressant side effects experienced and any resultant functional impairment, pill burden, self-reported adherence, perceived efficacy of the antidepressant in treating symptoms and overall tolerability. The interviews were conducted in private locations at the clinics, recorded on audiotapes, and subsequently transcribed verbatim in Chichewa. The Chichewa transcripts were then translated into English for analysis. The research team reviewed transcripts as they became available, and provided feedback to the interviewer throughout the data collection process to ensure quality. For example, additional probes were added for specific side effects to ensure the patients considered all of the potential side effects.

Data analysis

Thematic analysis was conducted. Specifically, two qualitative researchers reviewed the transcripts and developed a thematic codebook that would address the study objectives and capture emerging themes in conjunction with the larger research team (Gibbs, 2007;

Sandelowski, 1995). A subset of the interviews was doubled-coded in order to confirm consistency in coding. The coders and research team conferred throughout the course of the coding process, making modifications and additions to the codebook as necessary. All coding was completed using NVivo 12. The coders reviewed all coded data related to acceptability. In order to effectively organise and understand the perspectives of the interviewed participants, the coders created matrices for each acceptability code to summarise content by participant and memos to take inventory of emerging themes.

Ethical considerations

We obtained ethical approval from the Malawi National Health Science Research Committee (NHSRC) institutional review board (IRB) (Protocol #1696) and the Biomedical IRB of the University of North Carolina at Chapel Hill. All participants who agreed to participate in the study provided informed consent and received a travel reimbursement equivalent to 10USD (7,000MK).

Results

Patient demographic and treatment characteristics

Eleven patient participants were recruited during the study period. Six participants were male and participants ranged in age from 23 to 47 years (Table 1). As per Malawian HIV treatment guidelines of 2014–2018, all participants initiated the first-line ART regimen of tenofovir, lamivudine and efavirenz after HIV diagnosis. As the initial screening and diagnosis of depressive symptoms occurred the day of HIV diagnosis, the prescription of antidepressants coincided with the initiation of the ART. Nine of the participants scored 10 or above on the PHQ-9 (indicative of moderate-to-severe depression) on the day of ART initiation and all nine of these participants started antidepressants the same day as they initiated ART. Two participants scored between 5–9 (indicative of mild depression) on the day of ART initiation; one (26F) began antidepressants the day of ART initiation and the other (45M) scored 10 at his second ART visit (one month after initiating ART) and subsequently started antidepressants at that second visit. None of the enrolled participants received a sustained six-month therapeutic dose of antidepressants as was recommended in the SOAR-MH protocol (Stockton et al., 2021; Udedi et al., 2018, 2019). Four participants received 30-day prescriptions that were subsequently discontinued inappropriately, while the longest continual prescription of antidepressant treatment received by a participant was 16 weeks. For the purposes of this analysis, each participant was labelled with a code denoting their age and sex; their depressive severity at initial antidepressant prescription and ongoing depression treatment regime is described in Table 1.

Patients' understanding of antidepressants

Participants received varying amounts of psychoeducation on their depression diagnosis and the purpose of the antidepressants. Five participants were aware of both their diagnosis and that the fluoxetine or amitriptyline was a medication for their depressive symptoms. However, others were less certain. Patient 30M admitted '*Ah, I do not know anything* [about the antidepressants] *I just know about the ARVs,'* summarising simply: '*I just got this medicine and I did not know the function of this medicine.'* Patient 35F also admitted, '*I just*

received [the antidepressants], *I did not know* [what the antidepressants would do].*'* Other patients (23M, 47F, 26F and 34F) similarly reported that they were unaware or sceptical of the specific purpose of the antidepressants they had been prescribed.

Aside from the indication for antidepressant use, nearly all patients ($n = 10$) were unaware of the proposed six-month minimum treatment duration. Patient 36M reported not being told how long he would have to take the antidepressants for, but stated that *'I believe maybe they are going to tell me, according to how I am feeling right,'* expressing the belief that health workers would eventually tell him when he could discontinue the antidepressants.

Very few patients expressed dissatisfaction at the lack of information given. Patient 23M was the notable exception, complaining of the brief, authoritarian manner in which he was instructed: '*The information that I was given was that, "You should take this medicine according to the instructions."'* Patient 23M further anxiously expressed his wish to be better educated about antidepressants: *'I do not know the dosage that I have been prescribed; I do not know when I will finish the dosage. Therefore, my thoughts are that maybe we should know how long a person takes this medicine.'* Other patients also demonstrated both a willingness and a desire to learn about the purpose of the antidepressants.

Though various aspects of medication psychoeducation were suggested to be inadequate by participants, patients reported they continued to take the antidepressants due to their faith that health workers were acting in their best interest. Despite her prior expressed uncertainty about the indication for antidepressants, Patient 47F reported that she took the medication because '*I was like "they are medical people, they know more things as how the world is moving," … they read in the books, they see how things are, they know that they are working like this in our body.'* In this manner, the patient describes her respect for the health workers' medical knowledge as driving her willingness to adhere to their instructions and take the antidepressants.

Type, severity, and duration of side effects and resultant functional impairment

Patients unsurprisingly struggled to discriminate which side effects were due to the antidepressants or due to the ART as both medications were initiated simultaneously. Notably, the ART regimen all patients had been initiated on contained efavirenz, which has known neuropsychiatric side effects. Four patients reported experiencing limited to no side effects with their medication. The remaining seven patients reported a range of largely self-limiting side effects including nausea, visual disturbances, dizziness, sedation, sexual dysfunction and decreased libido. In three of these patients, the side effects potentially impaired occupational and social functioning while present. For example, 23M complained of a host of side effects:

> … when walking, I felt that there was a hole in the ground when actually there was none. This is on the first day of taking (amitriptyline). I was very distressed. I felt dizzy, and also dimness … frequently, because this medicine was alien in my body … I also sleep a lot. I can sleep to the extent that it will be a struggle if someone wanted to wake me up, because the medicine is very strong … and sometimes it affects my performance.

Another patient, 34M, who was treated with amitriptyline and subsequently fluoxetine, reported dizziness, nausea, decreased libido, and sedation, which initially impaired his occupational functioning prior to resolving: '*I work as a watchman and one day I overslept and realized that it was morning hours. I woke up and asked myself "Was there no thief that came while I was sleeping?"*' In regards to decreased libido, Patient 26F, initially treated with amitriptyline and subsequently fluoxetine, described: '*I don't have the desire of sex … Now when I see my husband, I get bored and he asks me "what is it with you?" I just say nothing. I would say this interferes with my life.*' These narratives demonstrate how side effects which were ultimately self-limiting and largely resolved spontaneously, were experienced as distressful by participants.

In regards to symptoms due to discontinuing antidepressants, only one patient, 30M, gave an account suggestive of experiencing some discomfort during the two weeks after stopping fluoxetine.

Pill burden

Six patients reported no challenges related to the added pill burden of antidepressants. Reflecting these views Patient 47F stated that a large pill burden was expected and acceptable to her:

> taking many pills does not have any effect, even if the tablets are so many. There is no problem because the doctors know that these medications will cure this disease … so having so many pills is not a big deal.

In contrast, the other patients reported ambivalence towards or concern around the increased pill burden. Some of the concerns that were narrated were the risk of adverse drug interactions due to the cocktail of prescribed drugs. As heard from Patient 23M:

> I feel that the medicines are too many. We take many tablets at once. This is because we take the ARVs, those other ones, those for numbness and we also take these, meaning that we take four tablets at once. These are too much and sometimes these drugs all work at the same time or at different times.

Adherence

Nine patients reported good adherence to their antidepressants. Factors that reinforced good adherence included respect for health workers and their advice, and belief that side effects would resolve:

> I said, "I will not take this medicine again (in response to side effects)!" However, when I thought about it again … of course I sought advice from some other people and they said, "Sometimes this medicine, when taken for the first time gives you these side effects. However, do not stop taking the medicine!" When I came here (to the hospital), I asked someone about this. He said that I should not stop taking the medicine, I then saw that it was not difficult.
>
> (Patient 23M)

Other patients, such as Patients 42F and 36M, reported they had struggled to be adherent to their antidepressants. For example, Patient 36M reported that while he initially struggled to

take the medication daily, his adherence improved after he noted the therapeutic effect of the antidepressants:

> When I stay 3 or 4 days without taking them (the antidepressants) I would find myself doing something bad, I would get depressed, staying quiet, not responding to anyone … because some things would be painful in my heart. So when I started taking them adherently things changed, everything in my life now is going perfect.

Perceived efficacy of antidepressants

Almost all participants ($n = 10$) endorsed the efficacy of antidepressants, reporting the remission of various depressive symptoms such as irritability, low mood, anxiety, poor appetite and insomnia. Most participants believed the therapeutic benefit was antidepressant related; however, the simultaneous initiation of ART and antidepressants makes it is impossible to identify the true efficacious agent. This was particularly evident in the narratives of four participants (34M, 23M, 30M and 42F), which demonstrated uncertainty around what caused the improvements in mental health as depression remission was reported after antidepressants had been discontinued.

For example, Patient 34M described his experience with the medication:

> I am feeling positive … This medicine has helped me a lot because previously when there was a small mistake, whether from family, work or friends, I was very anxious and it was taking me long to come back to my normal senses. Sometimes I could stay for two, three days without taking food prepared by my wife because of anxiety. But since I started taking this medicine I just say, “it’s okay, it happens … ” I don’t become angry as I used to before. To say the truth, my health has changed. … Even my wife asks me “what is happening … ?” Even my children are saying “is he the same father of ours?” … This medicine has helped me so much.

In addition to symptomatic relief, patients reported functional improvement, as heard from another patient:

> When I started taking the medication I talk calmly, even staying in a group I am able to. I sleep, the sleep comes whenever I want. … My behaviour has changed, I could not be bothered to socialize, I struggled to find pleasure from socialising, even to do chores I was struggling. I struggled to speak amicably to my friend and was always irritable. Since I started taking the medication the irritability, the laziness has gone. I work the way I used to work.
>
> (Patient 26F)

For the ten participants that endorsed the therapeutic benefits of the medication, the time period reported for subjective efficacy ranged from 2 weeks to 5 months (Table 2). One participant, 47F, treated with amitriptyline for 4 weeks reported no noticeable change in her depressive symptoms at the time of the interview, three months after initiating ART.

Overall tolerability and acceptability of antidepressants

Seven participants reported that they had experienced no challenges with the use of antidepressants, describing the medications as tolerable and acceptable. For example, Patient

35M reported advocating antidepressants to his mother, who *'experiences depression,'* saying *'I told her because I saw that these medications are really helpful when a person is depressed.'* In this manner, some patients actively endorsed taking antidepressants and believed others would similarly benefit from their therapeutic effects.

However, others were more ambivalent or concerned about antidepressants. Patient 34F reported that the additional depression diagnosis (on top of the HIV diagnosis) and antidepressant medication had a negative impact on her mental state:

> I had concerns a lot because it was something unexpected giving me medication, and the way they were giving me the medication. (I) had a lot of concerns … It was depressing because this one (antidepressant) they told me to be taking today, then the other day they were giving me 6 (pills).

Others, such as Patients 23M, 26F and 34M, reported experiencing no challenges with the medication, but gave detailed descriptions of side effects resulting in significant functional impairment including dizziness, insomnia, significant sedation and sexual dysfunction. Despite these side effects, medication was welcomed by these three patients as the benefits were seen to outweigh the negatives. As heard from Patient 26F:

> to me they (antidepressant medication) are good because they have taken me far, where I couldn't reach. Without this medication, had it been they did not say "let's give this one this medication", I don't where I would be by now, I would have gone mad.

While participants provided conflicting responses on the tolerability and overall acceptability of antidepressants, overall antidepressants were deemed both tolerable and acceptable.

Discussion

This study describes the experiences of PLWH with comorbid depression who were treated with fluoxetine or amitriptyline, and their perceptions of the acceptability of antidepressants at ART initiation. Although all patients received a discontinuous supply or an insufficient treatment trial, thereby limiting the interpretation of their experiences, patients were able to comment on their understanding of the antidepressants, side effects severity, pill burden, adherence, perceived efficacy and overall tolerability of the medication. Patients had minimal knowledge of the purpose of medication or the intended duration of treatment with most reporting having received inadequate psychoeducation from their prescriber. Patients experienced variable side effects with three patients reporting moderate side effects with potential functional impairment. In most cases, the reported side effects were ultimately self-limiting and resolved. Three patients complained of the additional pill burden imposed by antidepressants. Despite the reported challenges, patients were largely adherent to their prescriptions with only two patients reporting poor compliance. Antidepressants were subjectively perceived to be efficacious by the majority of patients, with symptoms reported to have remitted between two weeks and five months after initiating treatment. The acceptability of antidepressants was relatively universal, with ten of the eleven patients endorsing their overall experience of the medications as tolerable and beneficial.

Literature suggests selective serotonin reuptake inhibitors, such as fluoxetine, may cause fewer side effects than tricyclic antidepressants, such as amitriptyline, in PLWH and may therefore be considered more acceptable (Slabbert et al., 2015; Watkins et al., 2011). Recognising the small sample size and the co-administration of efavirenz, both antidepressant drugs were perceived to be associated with side effects in this study. These side effects were common during initiation, even at relatively low drug doses. As the early presence of side effects is an important determinant of long-term adherence, strategies to minimise early side effects or psychoeducation about what side effects to expect and how to manage them may enhance the acceptability of antidepressants. Prescribing approaches in PLWH typically suggest initiating drugs at lower than standard doses, and titrating upwards at a much slower rate (Watkins et al., 2011; Yanofski & Croarkin, 2008). This ‘start low, go slow’ approach should be emphasised to primary health workers treating comorbid depression in PLWH in task-shifted measurement-based care models.

Although complaints of increased pill burden were minimal in the cohort, this may have been influenced by the relatively short duration of treatment received by participants. First line ART regimes have increasingly been simplified to single dose medications, however, comorbidities in PLWH make significant contributions to a patient’s pill burden (Krentz et al., 2012). In the Malawian public health system, typically amitriptyline is only offered in 25 milligram tablets. To achieve the recommended minimal effective dose of 50 milligrams (Taylor et al., 2019), patients need to take multiple amitriptyline tablets daily. Fluoxetine, on the other hand, is available as 20 milligram capsules [the recommended minimum effective dose (Taylor et al., 2019)] and may represent a more acceptable choice to PLWH as the contribution to the daily pill burden would be a single capsule.

While benign paternalistic practices by health workers are common in mental health care, such practices frequently undermine the desired patient outcomes (Bladon, 2019). Many patients reported receiving inadequate information about their antidepressant treatment with one patient explicitly complaining about the authoritarian manner of his provider. Evidence suggests that collaborative relationships that strengthen service user involvement are associated with greater user satisfaction and adherence (Stringer et al., 2008). Therefore, a patient-centred strategy to improve the acceptability of antidepressants in PLWH would place a greater emphasis on patient psychoeducation and, where various antidepressants are available, deferring the choice of medication to the informed patient. As discussed above, patient education could also mitigate the challenges caused by side effects and pill burden by preparing the patient and alleviating any patient concerns or misconceptions about the treatment.

Patients largely reported the antidepressants were effective, experiencing improved mental health within five months. This perceived efficacy led to the antidepressants being judged as tolerable, beneficial and acceptable even in the presence of negative user experiences of inadequate knowledge and side effects. The immediacy of a drug’s therapeutic effects and the patient’s belief of the efficacy of the treatment are two important therapy-related and patient-related factors that influence acceptability and ultimately adherence (Sabaté, 2003). The relatively universal endorsement by the patients supports the acceptability of antidepressants treatment for comorbid depression in PLWH.

Limitations

The study included a small convenience sample, though the included 11 participants did account for nearly a fifth of the 58 patients treated with antidepressants during the SOAR-MH study. Patients enrolled in SOAR-MH had high drop-out rates (Stockton et al., 2020; Udedi et al., 2018, 2019). However, the patients who participated in this qualitative study were still engaged in care and potentially more likely to have favourable views about their treatment as it is possible that negative experiences with antidepressants contributed to drop-out. Participants' experiences with side effects should also be interpreted in light of some specific considerations. As the participants started both HIV and depression treatment at the same time, it is impossible to ascertain the direct cause of reported side effects. As well, as participants changed medications, it is difficult to determine which antidepressant may have been responsible for the described side effects. Finally, medication stock-outs hampered continuous prescription of antidepressants, which may have impacted participants' experiences with side effects, given many antidepressant side effects are self-limiting and subside with prolonged adherence. Findings should also be considered in light of participants' sub-therapeutic (in terms of consistency and duration) experience with antidepressant treatment. The responses of the patients may have been influenced by social desirability bias and self-reported medication adherence, tolerability and acceptability of the antidepressants may have been inflated. We attempted to minimise the impact of such bias by using an interviewer who was not affiliated with the provision of the patients' clinical care and assuring the patients that their clinical management would be unaffected by their views.

Conclusions

'Acceptability,' is conceptually understood as the intervention user's perception that the treatment is satisfactory or agreeable (Proctor et al., 2011). This judgement should be derived from the stake-holder's personal experience with various dimensions of the treatment (Proctor et al., 2011). Although patient understanding about antidepressants was poor and some experienced side effects, these challenges were largely offset by patients' perception that the antidepressants were efficacious and tolerable. The acceptability of antidepressants can likely be enhanced through patient psychoeducation to promote greater service user involvement in decision making, thereby rebalancing the therapeutic relationship as a collaborative effort. Health workers should additionally be mindful of dosing and give consideration to pill burden. If health workers are aware of these facets of treatment, and they modify their practices, antidepressant prescription by health workers represents a viable and acceptable approach for the management of comorbid depression in PLWH initiating HIV care in SSA.

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Availability of data and materials

The qualitative dataset will be made available from the corresponding author on reasonable request.

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Table 1.

Patient demographics and treatment characteristics.

Age/Sex	Depressive severity (PHQ-9 score) at initial antidepressant prescription and description of ongoing treatment regime	Time since initial prescription
23M	PHQ-9 score of 17; Received four-week prescription of amitriptyline 50 mg in December 2017. Antidepressants were inappropriately discontinued in January-February 2018. Received a four-week prescription of amitriptyline 25 mg in March 2018.	8 months
26F	PHQ-9 score of 8; Received eight-week prescription of amitriptyline 50 mg in March-April 2018. Antidepressants were inappropriately discontinued in May 2018. Received a twelve-week prescription of fluoxetine 20 mg in June-August 2018	9 months
30M	PHQ-9 score of 12; Received four-week prescription of fluoxetine 20 mg in May 2018	3 months
34M	PHQ-9 score of 10; Received four-week prescription of amitriptyline 50 mg in May 2018. Received twelve-week prescription of fluoxetine 20 mg in June-August 2018.	5 months
34F	PHQ-9 score of 10; Received sixteen-week prescription of fluoxetine 20 mg in August-November 2018.	5 months
35M	PHQ-9 score of 10; Received four-week prescription of amitriptyline 50 mg in January 2018.	7 months
35F	PHQ-9 score of 14; Received eight-week prescription of fluoxetine 20 mg in June-July 2018.	3 months
36M	PHQ-9 score of 10; Received eight-week prescription of fluoxetine 20 mg in July-August 2018.	5 months
42F	PHQ-9 score of 12; Received four-week prescription of fluoxetine 20 mg in August 2018.	1 month
45M	PHQ-9 score of 10; Received four-week prescription of amitriptyline 50 mg in May 2018. Antidepressants were inappropriately switched in June 2018. Received eight-week prescription of fluoxetine 20 mg in June-July 2018.	4 months
47F	PHQ-9 score of 10; Received four-week prescription of amitriptyline 50 mg in April 2018.	3 months

F = Female; M = Male; PHQ-9 Scores of 5–9, 10–14, and ≥ 15 are indicative of mild, moderate, and severe depression, respectively.

Table 2.

Medication regimens, reported side effects and subjective perceived efficacy of antidepressants.

Age/Sex	Medication prescribed	Possible side effects reported	Reported time to perceived efficacy
36M	8 weeks FLU	Nausea	'2 weeks'
42F	4 weeks FLU	Dizziness	'2 weeks'
30M	4 weeks FLU	Itchiness, abdominal pains, anxiety, heart palpitations, visual problems	'after 2 weeks'
35M	4 weeks AMT	Dizziness	'Close to 1 month'
35F	8 weeks FLU	None	'A month'
34F	16 weeks FLU	None	'did not take even 2 months'
45M	4 weeks AMT, 8 weeks FLU	None	'2 months' (on AMT)
34M	4 weeks AMT, 12 weeks FLU	Dizziness, sedation, sexual problems	'After 2 months'
23M	8 weeks AMT	Visual disturbances, dizziness, sedation, sexual problems	'less than four months. It was like three months'
26F	8 weeks AMT, 12 weeks FLU	Insomnia, decreased libido	'5 months' (for insomnia to resolve)
47F	4 weeks AMT	None	No reported improvement at time of interview (3 months)

FLU = fluoxetine, AMT = amitriptyline; F = Female; M = Male.