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Preliminary communication

A group-based counselling intervention for depression comorbid with HIV/AIDS using a task shifting approach in South Africa: A randomized controlled pilot study

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ABSTRACT

Background: Co-morbid depression in HIV-positive patients on anti-retroviral (ART) treatment poses a public health threat. It compromises treatment adherence and accelerates disease progression. This study aimed to assess the feasibility of a group-based counselling intervention for depressed HIV-positive patients in primary health care (PHC) in South Africa using a task shifting approach.

Methods: Using a randomized control design, 76 HIV-positive patients with co-morbid depression were initially recruited. This reduced to 34 in the final cohort. Participants were assessed using the Patient Health Questionnaire (PHQ9), Hopkins Symptom Checklist (HSCL-25) and Multidimensional Scale of Perceived Social Support (MSPSS) at baseline and 3-month follow-up. The intervention was adapted from a local group-based Interpersonal Therapy (IPT) intervention. Process evaluation interviews were held with the HIV counsellors who delivered the intervention and a sub-sample of participants.

Results: Repeated measures ANOVA analysis showed significantly greater improvement on depression scores on the PHQ9 in the intervention group compared to the control group. A significant decline in the mean scores on the HSCL-25 was found for both groups although this was more pronounced for the intervention group. There was no significant improvement in the MSPSS scores.

Limitations: The small sample size of the final cohort affected the power of the study to detect significant differences between the intervention and control groups on the MSPSS. Longer term impact of the intervention is unknown.

Conclusions: These preliminary findings suggest that group-based counselling for depression in HIV-positive patients can potentially be effectively delivered by appropriately trained and supported lay HIV counsellors. The need for a larger trial is indicated.

1. Introduction

With the transition of HIV to a chronic condition in South Africa with the rapid roll-out of anti-retroviral therapy (ART), increasing attention is being paid to factors that can compromise adherence in order to protect the huge investment in ART. One of these factors is comorbid depression. Internationally, the relationship between depression and poor ART adherence is confirmed by a meta-analysis of 35,029 participants (Gonzalez et al., 2011). This relationship holds in sub-Saharan Africa as well, with a recent review indicating that HIV-positive patients with depressive symptoms are 55% less likely to be adherent than HIV-positive patients without depressive symptoms (Nakimuli-Mpungu et al., 2012). This is in the face of evidence of a twofold increased risk for depression if HIV-positive (Ciesla and Roberts, 2001).

In the context of having one of the largest ART programmes in the world, inadequate treatment of co-morbid depression in ART patients poses a public health threat to South Africa. Yet, to date, scant attention has been paid to this issue with only one in four people with common mental disorders (CMDs), including depression, having access to treatment of any kind (Seedat et al., 2009).

In their systematic review assessing the effectiveness of different types of interventions that target depression in people living with HIV/AIDS (PLWHA), Sherr et al. found that interventions that

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used either psychological interventions with a cognitive behavioural component or psychotropic drugs were effective, with a combination of the two types of interventions being the most effective (Sherr et al., 2011). However, the applicability of the findings of this review to low- and middle-income countries and South Africa in particular, is questionable given that it presents data mainly from high income countries (Sherr et al., 2011). A recent review of psychological treatments of evidence-based treatments indicates, however, that they are as effective in populations for which they were not originally developed if adapted for the local context (Chowdhary et al., 2013). Given the paucity of mental health specialists in South Africa, there is a need to adopt a task shifting approach whereby specialist tasks are shared with general health care providers. A review of counselling interventions for treating depression in LMICs using a task shifting approach, found that in addition to medication, there was evidence of the effectiveness of cognitive-behavioural therapy (CBT), interpersonal therapy (IPT) and problem-solving therapy (PST) (Dua et al., 2011).

South Africa has adopted a new Mental Health Care Policy Framework (Department of Health, 2013) which requires that mental health services are integrated into PHC services a part of the shift towards integrated disease management for chronic illnesses, including HIV. To this end, an integrated task shifting is embraced with an integrated set of clinical guidelines, including mhGAP guidelines for mental disorders, being rolled out to PHC facilities in South Africa. While these guidelines assist nurses and doctors to identify and provide symptom management to patients with mental disorders, they do not provide guidelines for intensive counselling defined by mhGAP as taking a few hours of a health care provider's time to learn and implement (World Health Organisation, 2010).

Lay HIV counsellors, historically funded by the United States President's Emergency Plan for AIDS Relief (PEPFAR) to provide health counselling and testing (HCT), are based in most primary health care (PHC) clinics in South Africa. A recent review of research on their use in South Africa suggests, inter alia, that they have the potential to provide more intensive counselling within a task shifting approach but that more evidence of their effectiveness in this regard is required (Petersen et al., in press).

The aim of this study was thus to conduct a pilot randomized control trial (RCT) to evaluate the potential effectiveness of an adapted group-based HIV counsellor delivered intervention for treating depression in people living with HIV/AIDS in preparation for a larger trial. The intervention was adapted from an existing IPT group-based intervention for the general population, previously found to have promising outcomes in South Africa (Petersen et al., 2012).

2. Method

2.1. Study site

The study was conducted at a public clinic in the KwaZulu-Natal province in a peri-urban area outside of Durban in the eThekwini district, situated on the eastern seaboard of South Africa. During 2012/2013, the province had seven of the ten worst affected districts in South Africa, with the eThekwini districts having one of the highest HIV prevalence of pregnant women living with HIV in the country at 40% (Massyn et al., 2013). At the time of the study the clinic served about 800 people on ART and had a dedicated ART clinic attached to the site with 6 lay HIV counsellors providing HIV Counselling and Testing as well as adherence counselling.

2.2. Procedure

Participants attending the dedicated ART clinic were informed about the study by a research assistant and volunteers were subsequently recruited. Following informed consent procedures, potential participants were initially screened with the Self-Reporting Questionnaire (SRQ-20). The SRQ-20 has been extensively used as a screening instrument for common mental disorders in Africa and has been validated for South Africa using a cut-off point of 8+ (Bhagwanjee et al., 1998, Rumble et al., 1996). Inclusion criteria were that participants were attending the dedicated ART clinic for treatment; were 18 years or older; did not require urgent medical attention; and did not have difficulty with hearing, speaking or cognition that would make interviewing difficult. Participants who screened 8 and above on the SRQ-20 were subsequently administered the depression module of the Structural Clinical Interview for a DSM IV Diagnosis (SCID-11) by a clinical psychologist to provide a diagnosis of Major Depressive Disorder (MDD). At the time of the study, the DSM V had not yet been introduced. Participants receiving a diagnosis of MDD formed the final sample and were subsequently administered a short demographic questionnaire as well as the Patient Health Questionnaire (PHQ9) and Hopkins Symptoms Checklist (HSCL-25) as measures of symptom severity. The PHQ9 is a widely used brief diagnostic and severity measure of depression in research and clinical practice (Lowe et al., 2004) and the HSCL-25 measures general psychological functioning and has been used previously on South African clinic populations (Kagee, 2008). Additionally, the Multidimensional Scale of Perceived Social Support (MSPSS) was administered to establish social support as perceived by the participants given that IPT aims, inter alia, to improve social support. The MSPSS has also been previously applied in the South African context (Bruwer et al., 2008, Petersen et al., 2012). Cronbach reliability coefficients were computed separately for pre-test and post-test scores on all the measures (see Table 1), and with the omission of certain items all fell within the acceptable range.

2.3. Participants

A total of 103 participants were initially recruited into the study using the SRQ-20. Following administration of the SCID 11, 76 met the diagnostic criteria for MDD and comprised the final sample recruited into the trial. Following recruitment of the final sample, participants were allocated to an intervention and control arm using computer generated random allocation by the third author, who had no knowledge of the participant scores. Forty-one were randomly allocated to the intervention arm and 35 to the control arm. In the intervention arm, 21 did not take up the counselling intervention at all and three dropped out after attending one or two sessions. A group counselling intervention in Uganda found a significantly faster reduction in depressive symptoms in participants attending two or more sessions of group counselling

Table 1
Cronbach reliabilities for the measures.

Measure	Pre-test alpha	Post-test alpha
PHQ9	$r=.81$	$r=.71$
Hopkins Anxiety Scale 9 items; item 8 removed	$r=.83$	$r=.86$
Hopkins Depression Scale 11 items; items 13, 15, 23, and 24 removed	$r=.87$	$r=.86$
MSPSS 10 items; items 8 and 12 removed	$r=.84$	$r=.92$

(Nakimuli-Mpungu et al., 2013). Only participants who attended three or more sessions were thus included in the analysis. In the control arm, 18 were lost to follow-up. In total the final sample on which analysis was conducted was thus 17 in the intervention arm and 17 in the control arm. See flow chart of the study participants in Fig. 1.

Follow-up outcome evaluation was at 3 months post baseline. The PHQ-9, HSCL-25 and MSPSS were administered to both the intervention and control cohorts by 3 independent fieldworkers who were not informed whether the participants were in the intervention or control arms. All had a four year Bachelor's degree in Psychology and received training in the administration of these measures.

Qualitative process evaluation interviews were conducted following the outcome evaluation by a counselling psychology trainee and involved one focus group with 3 participants and three individual interviews with participants who attended more than half the number of the sessions. Two individual interviews were held with drop-outs who attended one or two sessions and interviews were also held with the two facilitators of the groups. The interviews focused on the experiences of the group in relation to what was helpful/unhelpful, challenges experienced, how the intervention could be improved, as well as reasons for dropping out for those who dropped out. Following informed consent procedures, interviews were conducted in isiZulu and audio-recorded. Participants in the intervention arm who did not take up the intervention were also contacted telephonically where possible to enquire about their reasons for non-uptake.

Ethical approval for the entire study was obtained from the University of KwaZulu-Natal Ethics Committee as well as the local Health Department in KwaZulu-Natal.

2.4. The intervention

The results of a formative qualitative study on patients diagnosed with depression at a large outpatient HIV/AIDS clinic attached to the hospital servicing the area in which the pilot study was conducted were used to inform the adaptation of the existing South African lay counsellor group-based IPT manual (Petersen et al., 2012). The results of this formative qualitative study is published elsewhere (Petersen et al., 2013). The IPT approach of addressing the triggers of depression was maintained. However, they were adapted to resonate with the issues emerging as triggers of depression from the qualitative interviews in the formative study to focus on poverty, grief, interpersonal conflicts and externalised stigma and diverged from the traditional IPT approach by also including exacerbating factors, viz. social isolation and intrusive negative thoughts, particularly internalised stigma. In addition, the traditional 16 sessions of the IPT model was pared down to fit into an 8 week period given resource constraints on the delivery side as well as financial and practical issues constraining participation by service users. Eight sessions

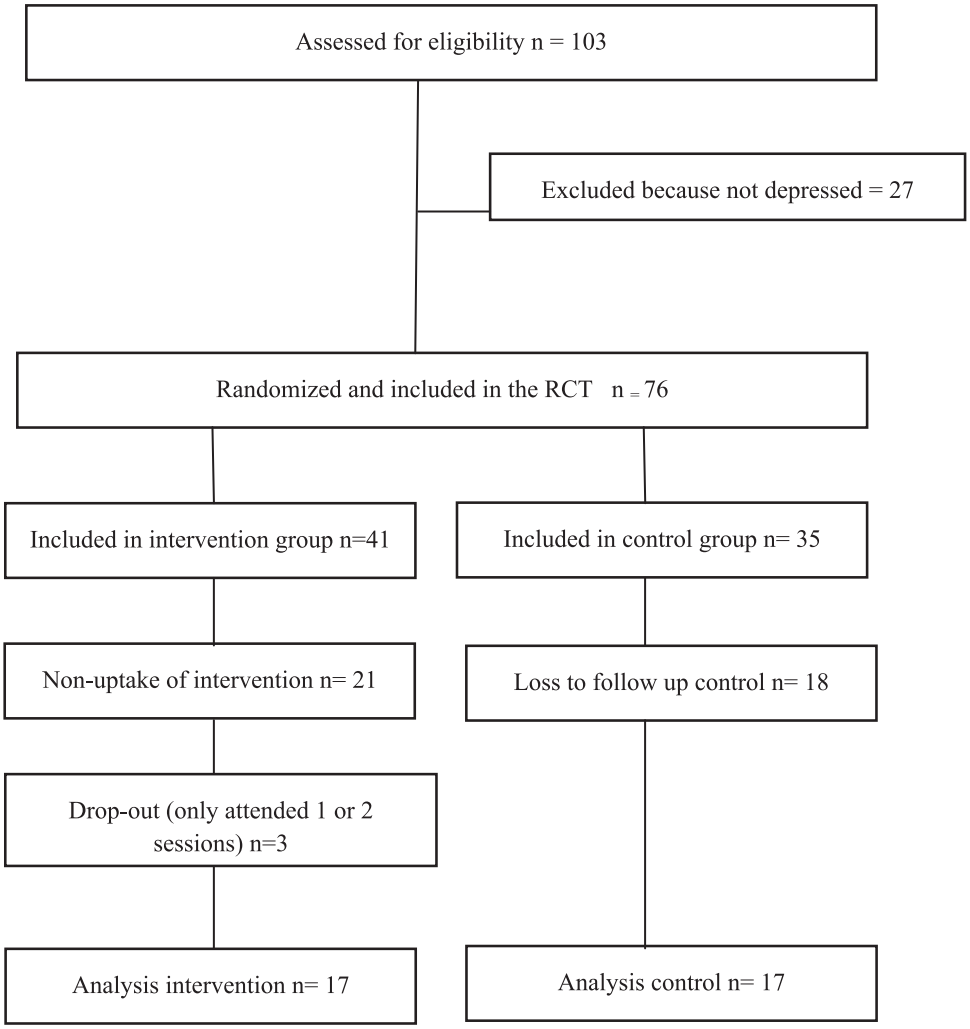

Fig. 1. Flow chart of participants.

has been identified as the minimum number of sessions for treating depression by the National Institute of Health funded National Comorbidity Survey Replication (NCS-R) in the United States (National Institute of Health, 2005). An outline of the sessions is contained in Table 2.

Each session comprised a number of steps starting with introducing a common trigger or exacerbating factor using a vignette. The second step involved asking participants who identify with the story to share their problem. The third step drew on problem management to address the triggers of depression and cognitive behavioural techniques for exacerbating factors, promoting healthy thinking in the case of negative intrusive thoughts and behavioural activation for social isolation. The fourth step involved getting participants to identify problems that they were going to work on in the next week.

The implementation of the groups ran over a 6 month period from 2012 to 2013. As sufficient participants for an intervention and control group were recruited (20 participants), participants were randomly allocated and participants in the intervention arm were contacted telephonically and asked to attend the group sessions. The non-treatment group received normal standard of care which included the counselling services provided by the HIV counsellors. In total, four groups were formed with each group running over 8 weeks with one session per week. The intervention was delivered by two of the lay HIV counsellors from the clinic who were trained in the intervention. Training was conducted by a clinical psychologist and clinical psychology trainees. It took place over four days. The first two days involved training in micro-counselling skills as well as the different ways of helping, viz. psycho-education, problem management, health thinking and getting active. The second two days involved training in the group-based sessions and drew on the techniques learned during the first two days. Adopting the apprenticeship model which has been shown to be the most appropriate training model within a task shifting approach in LMIC (Murray et al., 2011), the lay HIV counsellors were supported through via weekly supervision sessions with the clinical psychology trainees for the first two months and then on a monthly basis. Exposure to the intervention was measured through an attendance register.

2.5. Analysis

Outcome data was entered into SPSS 17.0. Baseline demographic and outcome variables were compared between the intervention and control groups using independent *t*-tests for continuous variables and Chi-square (χ^2) for categorical variables. A series of repeated measures analysis of variance (RM-ANOVA) were conducted to assess whether there were group differences (intervention and control) on the PHQ9, HSCL-25 and MSPSS over two assessment points (baseline and 3 month follow-up period).

Table 2
Sessions by week.

Week	Session
One	Introduction and psycho-education about depression
Two	Dealing with internalised stigma using healthy thinking (CBT techniques)
Three	Dealing with externalised stigma using problem management
Four	Dealing with social isolation using getting active (behavioural activation techniques)
Five	Dealing with poverty using problem management
Six	Dealing with intrusive thoughts using health thinking/problem management
Seven	Dealing with interpersonal conflicts using problem management
Eight	Closure

The process evaluation interviews were transcribed and translated into English, with back-translation checks applied by an independent, bilingual isiZulu/English speaker. Thematic analysis was used to analyse the data with the assistance of NVIVO 10. Constant comparisons were made across the cases in a progressive process of classifying, comparing, grouping and refining groupings of text segments to create and then clarify the definition of categories, or themes, within the data (Lincoln and Guba, 1985).

3. Results

3.1. Description of the sample

Loss to follow up was high and the study was only able to follow-up 49% of the original sample at post evaluation assessment. Data from a total of 34 participants (17 in the intervention arm and 17 in the control arm) were included in the final analysis (see Fig. 1 for flow chart of study participants). The demographics of the sample are depicted in Table 3. Chi-square (χ^2) analysis did not reveal any significant differences in demographic characteristics between the intervention and control arms. The majority of subjects were female and aged between 21 and 40 years, had secondary school education, were not working and were single. Sources of income were split fairly equally between wages and social grants.

3.2. Outcome evaluation

The results are summarised in Table 4. Independent samples *t*-tests showed there were no significant differences at baseline between the intervention and control group mean scores on the PHQ9, HSCL-25 and MSPSS measures.

Table 3
Study participants.

	Intervention ($N=17$)	Control ($N=17$)	Total ($N=34$)
Gender:			
Female	11 (65%)	14 (82%)	25 (74%)
Male	6 (35%)	3 (18%)	9 (26%)
Age:			
21–30 years	4 (23%)	8 (47%)	12 (35%)
31–40 years	5 (29%)	5 (29%)	10 (29%)
41–50 years	5 (29%)	2 (12%)	7 (21%)
51–59 years	3 (18%)	2 (12%)	5 (15%)
Education level:			
None	0	1 (6%)	1 (3%)
Primary	6 (35%)	3 (18%)	9 (26%)
Secondary	11 (65%)	13 (76%)	24 (71%)
Employment:			
Full-time	1 (6%)	3 (18%)	4 (12%)
Part-time	1 (6%)	2 (12%)	3 (9%)
[a]Not working	14 (88%)	12 (71%)	26 (79%)
Sources of income			
Wages	5 (29%)	8 (47%)	13 (38%)
[b]Grants	9 (53%)	5 (29%)	14 (41%)
None	2 (12%)	3 (18%)	5 (15%)
Relatives	1 (6%)	1 (6%)	2 (6%)
Marital status:			
Single	9 (53%)	13 (76%)	22(65%)
Married	4 (24%)	1 (6%)	5 (15%)
Partner	3 (18%)	2 (12%)	5 (15%)
Living separately with relatives	1 (6%)	1 (6%)	2 (6%)

[a] "not working" includes those seeking work; and those receiving Grants.
[b] Grants includes single and multiple social grants from the government.

Table 4
Means, standard deviations and *F* values of depression and social support scores separately by group.

	Pretest			Posttest		
	N	Mean	SD	*N*	Mean	SD
Depression scores (PHQ9)						
Control	17	15.18	5.46	17	11.06	4.58
Intervention	17	15.47	4.46	17	6.94	4.14
$F(1, 32)=23.88$, $p=.0001$						
	Pretest			Posttest		
	N	Mean	SD	*N*	Mean	SD
HSCL-25						
Control	17	2.50	.40	17	2.13	.62
Intervention	17	2.59	.48	17	1.97	.57
$F(1, 32)=17.48$, $p=.0001$						
	Pretest			Posttest		
	N	Mean	SD	N	Mean	SD
MSPSS (social support)						
Control	17	34.76	11.40	17	34.12	13.78
Intervention	17	36.71	7.52	17	40.18	9.32
$F(1, 32)=1.00$, $p=.32$						

On the PHQ9, the baseline mean scores of both groups placed them in the moderate range for depression (15.18 and 15.47, respectively). Repeated measures ANOVA analysis showed significantly greater improvement on depression scores on the PHQ9 in the intervention group compared to the control group at 3-month follow-up (mean difference scores of 8.53 in the intervention group compared to a mean difference score of 4.12 in the control group at follow-up) ($F(1, 32)=23.88$, $p<.0001$). With respect to the overall HSCL-25 scale, baseline mean scores for both groups fell above the commonly used cut-off of 1.75 for psychological dysfunction (2.59 for the intervention group [$n=17$] and 2.50 for control participants [$n=17$]). At post-test, a significant decline in the mean scores on the HSCL-25 was found for both groups (1.97 and 2.13 for the two groups respectively), ($F(1,32)=17.48$, $P<.0001$). The marked improvement in scores for the intervention group post intervention for psychological dysfunction on the HSCL-25 is noteworthy.

No significant differences were found on the MSPSS, though the scores were in the appropriate direction for the intervention arm.

3.3. Process evaluation

3.3.1. How the group was helpful

The facilitators identified the session on internalised stigma as most helpful as it helped to change the way the participants thought about themselves, which then helped them to withdraw less and have more hope.

"Especially when we started on internal stigma and changing the way they think about themselves it was helpful. Often it is not that they were all discriminated by other people but it is the person who is isolating him/herself and ends up thinking too much, which at times if they donot think a lot about it they would be fine" (Facilitator 1).

This was supported by the interviews with the actual participants.

"Like at work people will talk negatively about HIV people and I would keep quiet but I no longer feel discomfort about it. So it is something I laugh at because I no longer think that the person is referring to me". (Participant from group 2).

Related to this was a reported improvement in self-esteem as reflected in the following quotation from one of the drop-outs:

"When I began coming to the group knowing that I was HIV, I looked down upon myself and I felt worthless and that I was not of value in life. Upon attending the support group I started seeing a difference in the way I viewed myself…I (used to) prefer mostly to be alone and not talk to anyone. This has somehow changed as I see that I am now back to my normal self. It also helped me as I am no longer ashamed and I no longer have the poor perception I held about myself. I am now free again, and I have gained back confidence in myself".

As reflected in the above quote, this improved self-esteem helped reduce social isolation. Healthier thinking and an improved self-concept also assisted group members with hope for the future as reflected in the following quotation:

"It helped me because I was now thinking that because I am now like this I would never be anything, and the things that I was doing I am now not going to be able to do. They motivated me and told me that I can still live the same way I did before". (Participant from group 3).

This translated into helping with suicidal thoughts for at least four of the participants:

"Yes it helped me with suicidal thoughts and my alcohol intake. The group helped me change this perception I personally held. In the group they gave me hope and motivated me to see myself as having worth" (Participant from group 2).

Participants from all the groups, also reported how the group provided them with knowledge about the importance of taking their medication and leading a healthy lifestyle as well as ways that they could have a child without the child becoming infected. In addition they reported feeling more empowered to start doing things to help themselves. This was especially pronounced with regard to improving their food security. In particular, members from all three groups had initiated vegetable gardening activities.

"I asked the facilitators that if there are seeds/plants they should please give it to me so I can make my own garden so I have something we could eat to survive and sell some of the vegetables" (Participant from group 3).

The intervention was also reported by participants from all the groups as helpful for exploring ways of managing their problems which reduced their stress and brought psychological relief.

"It helped me because the stress I had has passed through coming and being part of the group and talking about the problems we had and finding solutions to them helped… the stress is no longer there". (Participant from group 3).

For four participants, sharing in the group also helped them to disclose their status as reflected in the following quotation:

"I was able to tell my children about my status after I started medication (I was scared before because I did not know how to tell them) but discussing this in the group helped me to do it in the end" (Participant from group1).

3.3.2. Experience of the group process

Participants indicated that although initially difficult to open up, as time went on it was easier to share in the group as they found that everyone had similar experiences.

"In the beginning it was hard, but knowing that the group was there to help us we were eventually able to talk because we came to realise that we were all going through similar problems and that put us at ease and made it easy to talk" (Participant from group 1).

All the participants interviewed were satisfied with the facilitation of the groups by the lay HIV counsellors. They indicated that the facilitators put them as ease and helped them to share their problems within the group.

"They explained everything well to us and put us at ease and explained that we were free to talk and share our problems within the support group. And when you were uncomfortable you were free to say so and you were not coerced into doing things you did not want to do. They knew what they were doing." (Participant from group 2).

Participants also indicated that the narratives were useful for introducing an issue as they could relate to them and made it easier to talk about their own issues.

"You will get here and they will read certain narratives in the manual and you find that you relate or you have been in a similar situation. And you also share how that narrative relates to you and you get comforted, and (the group) helps you with ways of dealing with that situation" (Participant from group1).

The facilitators indicated that they would observe the participants' non-verbal behaviour to see who identified with the story and would then encourage the person to share their issue.

"Sometimes you will find that when we had read out a vignette, you see as you read it through their body language that there is something they want to say but they end up not saying it. Some they will want you to probe or if you noticed you may have to point at them or call their names then some may respond after that" (Facilitator 1).

3.3.3. Reasons for low uptake of the intervention, dropping out and poor follow-up

As people were randomly allocated to the intervention and control group it was not possible to select participants purposely to ensure participation. There were several reasons why people in the intervention arm did not attend the sessions or dropped out of the intervention. One participant who dropped out reported that her mother got seriously ill and she could no longer attend the group as she had to care for her. Similarly another participant reported that her daughter who was also living with HIV developed a disability. As a result the participant was not able to continue with the sessions as she had to take care of her daughter. Being a minority in a group dominated by the other gender was a further reason. Reasons provided for non-uptake of the group intervention by participants randomized to the intervention arm included getting work on the days that the group was being run as well as lack of transport money to attend the clinic on a weekly basis.

Reasons for loss to follow-up included not being able to contact participants on the contact details provided; relocation; and a few participants had also passed away during the period of the intervention.

3.3.4. Structure of the groups

The facilitators indicated that in future, groups should be structured along age and gender lines. They suggested that in the third group there was one older woman amongst a group of younger women and that the older woman was uncomfortable in sharing her problems. They also indicated that people open up more in gender specific groups.

"Females were freer when they are with other females and this was also the same for males. When they were mixed there was that level of discomfort like in group 2 there were a majority of males and 2 females. The two females ended up dropping out as there were more males" (Facilitator 1).

4. Discussion

The outcomes of this pilot randomized control trial shows a significant reduction in depressive symptoms in PLWHA with comorbid depression in the intervention group compared to those in receipt of normal standard of care. Notwithstanding low uptake and high loss to follow-up, these preliminary results suggest that using lay HIV counsellors to deliver manualized group-based counselling to treat depression in PLWHA holds potential as an effective and acceptable strategy for closing the treatment gap for this condition in resource-constrained PHC facilities in South Africa.

The qualitative process evaluation provides additional data on how the group was helpful for participants. The session on internalised stigma was reported to be particularly helpful for improving participants' self-esteem and motivating them to improve their life circumstances. Even though there was no significant improvement in the intervention arm on the social support measure, the scores were in the right direction and in the qualitative process evaluation, participants reported that the group process was helpful because it provided the opportunity to get help and support from other group members, even though they found it difficult initially because of trust issues. Emerging evidence suggests that group counselling may be more suited to the African context given the dominant collectivist culture. Nakimuli-Mpungu et al. (2013) found that war affected individuals who opted for group counselling achieved better clinical outcomes than those in individual counselling in Uganda. Given that people of African descent may not easily share experiences and inner feelings with people they are not familiar with (Maree and Du Toit, 2011), it could be expected that the participants took a while to feel comfortable enough to begin sharing their problems. In addition, group counselling is a fairly new innovation in clinic settings which may also have accounted for the low uptake in the intervention arm and may take some time for PLWHA to see the benefits of attending.

Notwithstanding poor uptake, of the 20 participants who initially attended the groups, 17 participants attended 3 or more sessions (85%), which was considered sufficient dosage to benefit from the intervention based on previous group interventions in the African context (Nakimuli-Mpungu et al., 2013). This suggests that the group format is feasible. Individual counselling should, however, be offered as an option as, in addition to some participants not feeling comfortable with the group approach, reasons for non-uptake and dropping out included life circumstances such as family responsibilities, employment opportunities and inability to pay for basic transport costs. Further, the process evaluation highlights gender and age similarities as being important for ensuring relevance and comfort in dealing with sensitive issues.

The process evaluation also indicates that the delivery of the intervention by lay HIV counsellors was acceptable to the participants. Given that lay HIV counsellors exist in the majority of PHC clinics in South Africa, in the context of a shortage of skilled psychological specialists, they provide a potential vehicle for the scale up of counselling for common mental disorders within PHC clinics using a task shifting approach which is in alignment with the new Mental Health Policy Framework (Department of Health, 2013). However, a recent systematic review of research on lay HIV counsellor services in South Africa indicates that there are a number of organisational issues that would need to be addressed to optimise utilising them in this expanded role, including the need for a human resource plan providing a clear definition of their role and scope of practice, supervision structures and orientation of health care managers to the value and requirements of counselling (Petersen et al., in press).

5. Limitations of the study

Despite efforts to ensure an adequately powered sample, the poor uptake of the intervention in the intervention arm and loss to follow up among patients in the control arm resulted in a small

sample size affecting the power of study results. For service delivery this highlights the need to find mechanisms to address patient difficulties in attending group counselling sessions such as providing individual counselling as an option; combining clinic visits with the delivery of counselling interventions; and increasing awareness of the benefits of counselling. For a larger scale trial, the importance of obtaining multiple contact numbers and including home visits as part of follow-up is highlighted.

A further limitation was that follow-up assessment of depressive symptoms was only conducted at one time point (3 months). The longer term impact of the intervention on participants' depressive state was thus not established. Given the above, the exploratory nature of this study warrants the need for further trials to evaluate the efficacy of using a group-based counselling intervention for treating depression in HIV positive people.

6. Conclusion

Despite the significant challenges faced in the field with retention and recruitment, these findings are encouraging and suggest that group-based counselling for depression in PLWHA can potentially be effectively delivered by appropriately trained and supported lay HIV counsellors. The study adds to the evidence that appropriately adapted psychological treatments for depression can be effective on populations for whom they were not originally developed (Chowdhary et al., 2013) and that lay counsellors can effectively deliver these interventions within a task shifting approach (Dua et al., 2011). The study also provides valuable lessons on the acceptability and accessibility of group-based services, suggesting the need for individual counselling to be provided as an option to group counselling at PHC clinic level.

Given that depression comorbid with HIV compromises ART adherence and accelerates disease progression, and has the potential to compromise the huge investment being made in ART in South Africa, these promising findings indicate the need for a well powered pragmatic cluster randomized control trial to provide robust evidence of the effectiveness of such task shifted interventions on reducing depressive symptoms and improving health outcomes in PLWHA and comorbid depression.

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Conflict of interest

None to declare.

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