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Research Paper

The effect of co-morbid anxiety on remission from depression for people participating in a randomised controlled trial of the Friendship Bench intervention in Zimbabwe

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ABSTRACT

Background: There is a lack of data from low- and middle-income countries on whether anxiety independently predicts a more chronic course for depression.
Methods: We undertook secondary data analysis of a cluster randomised controlled trial in Zimbabwe which had tested the effectiveness of the Friendship Bench intervention for common mental disorders compared to enhanced usual care. Inclusion for the current study was participants from the trial who had probable major depression at baseline, defined as scoring => 11 on the locally validated Patient Health Questionnaire (PHQ9). This emerged to be 354 of the original 573 (61.78%) of the original trial sample. Anxiety was measured using the locally validated cut-point on the Generalised Anxiety Disorder scale (GAD-7). Persistent depression was defined as scoring => 11 on the PHQ-9 at six-months follow-up. Analysis in Stata 15 used random-effects logistic regression to adjust for clustering by clinic.
Outcomes: Of the 354 participants who were eligible for treatment, 329 (92·9%) completed 6-month follow-up assessment. 37% of the trial sample had persistent depression at 6-months follow-up; 59% in the control arm and 17% in the intervention arm. Co-morbid anxiety present at trial baseline was independently associated with persistent depression after adjusting for age, gender and baseline depression severity (adjusted OR = 2·83, 95% CI 1·32–6·07). There was no evidence of effect modification by trial arm. Baseline depression severity also predicted persistent depression. **Interpretation** Treatment for depression in low and middle-income countries (LMIC) should be directed towards those with greatest need. This includes people with co-morbid anxiety and greater depression severity at initial assessment who are less likely to remit at six months. Advice on coping with anxiety, psychological treatments which target common anxiety symptoms such as fear, avoidance, excessive worry and intrusive thoughts, and Selective Serotonin Reuptake Inhibitors (SSRIs) should be made more widely available in LMIC and offered to those with persistent mixed depression and anxiety.

1. Introduction

Depression is common worldwide with 4.4% of people estimated to be affected at any given point in time, and 5.9% of women in African countries [1]. Acute depression has received attention in low-income countries [2,3] but there has been a lack of research on persistent or recurrent depression. This is important because it is estimated

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that at least a third of depressive episodes persist for longer than six months [4]. Longer episodes are important, being associated with worse quality of life and predicting greater disability than shorter episodes [5,6].

As more low-income countries develop policies to improve treatment of depression in primary care [7,8], knowledge of which factors predict a longer or shorter duration of depression, and of which factors predict more rapid response to treatment, would be helpful. Evidence from systematic reviews of longitudinal population-based studies, and from systematic reviews and meta-analyses of treatment studies [9] show that patient-level factors predicting delayed remission include duration of current episode [10], a past history of depression [11] and baseline depression severity [11], co-morbid personality disorder and substance use [4,11] and several socio-demographic factors including lower socioeconomic position [12], older age, experience of child maltreatment [13] and less education [14]. All the studies included in these reviews were from high-income countries. Symptoms of anxiety and depression are known to be highly correlated [15]. Findings from the US STAR-D trial and a multicounty European trial found anxiety to predict slower response to depression treatment [16,17]. A systematic review found anxiety and depression to have a bidirectional relationship, especially over shorter periods, and reported that anxiety symptoms and disorders predicted depression [18]. Few of the studies included in that review were from middle or low-income countries and all were limited, either because they relied on retrospective recall of anxiety [19], or because they did not adjust for baseline depression when studying the impact of anxiety in predicting depression [19,20]. There is a lack of prospective data from low- income and middle-income countries (LMICs) on whether anxiety independently predicts persistent depression.

The aim of the current study is to assess the impact of co-morbid anxiety on recovery from depression among primary care clinic attenders taking part in a clinical trial for common mental disorders in Zimbabwe.

We undertook a secondary data analysis of a cluster randomised controlled trial (RCT) in primary care, evaluating the effectiveness of the Friendship Bench intervention, a stepped care intervention for depression and other common mental disorders [21]. The therapy used in the Friendship Bench is individual problem-solving therapy, which is derived from social problem-solving [22]. The trial showed that the Friendship Bench was strongly associated with remission of common mental disorders including depression and anxiety [21]. The primary hypothesis of this study is that, for participants in the Friendship Bench trial with depression at baseline significant anxiety at baseline (is associated with persistent depression at six-month follow-up after controlling for baseline levels of depression severity and other confounding variables.

2. Methods

2.1. Study setting and trial participants

The cluster RCT was conducted from 2013 to 2015 in Harare [23]. Twenty-four government primary health care clinics (clusters) were randomised 1:1 to receive the Friendship Bench intervention or Enhanced Usual Care (EUC). EUC comprised brief psychoeducation, nurse-led evaluation for severe cases, and an option for antidepressant medication. In the intervention clusters, participants were offered six-sessions of Problem-Solving Therapy delivered on a Friendship Bench as well as EUC.

The inclusion criteria for individual participants were screening positive for common mental disorders (CMD) on the locally-developed and validated Shona Symptom Questionnaire (SSQ-14) [24] and age 18 years or older. Participants completed the Patient Health Questionnaire (PHQ-9) for depression and the Generalised Anxiety Disorder Assessment (GAD-7) for anxiety. Exclusion criteria were persons who were unable to comprehend the nature of the study in either English or Shona (local language), had suicidal intent, had end-stage AIDS, were currently in psychiatric care, were pregnant or up to three months' postpartum, or presented with current psychosis, intoxication, and/or dementia. Among 573 randomized patients (286 in the intervention group and 287 in the control group), 86% were women with an average age of 33 years. 521 (91%) completed follow-up at 6 months. Intervention group participants had fewer symptoms of common mental disorders on the SSQ-14 than control group participants (adjusted mean difference, −4.86; 95% CI, −5.63 to −4.10; $P < .001$) and also lower risk of scoring above cut-point on the PHQ-9 for depression (13.7% vs 49.9%; $P < .001$).The protocol for the trial was approved by the ethics committees of the Medical Research Council of Zimbabwe and London School of Hygiene and Tropical Medicine [21].

The current paper presents results of the secondary analysis of trial participants who met criteria for probable major depression at baseline.

3. Measures for the current study

3.1. Depression

The PHQ-9 has been used extensively and across many countries in all world regions for screening and follow-up of depression. It consists of nine items, based on the DSM-IV criteria for major depression, and each item is rated on a four-point Likert-type scale [25]. The maximum score is 27 indicating severe depression, and the minimum is zero, zero meaning that the participant experienced no symptoms of depression in the past two weeks. The PHQ-9 has been validated against a diagnosis of major depression made using the Structured Clinical Interview for DSM-IV (SCID) [24] in a primary care population in Harare, Zimbabwe. A cut-point of ≥11 provided a sensitivity of 85%, specificity of 69%, and acceptable reliability (Cronbach's α score of 0·86) in Harare with the area under the ROC curve of 0·84 (95% CI 0·79−0·88). For analyses we used standard cutpoints of 10−14 (moderate), 15−19 (moderately severe) and ≥=20 (severe) depression [26].

3.2. Anxiety

Our primary outcome measure was anxiety, as measured by the GAD-7. The GAD-7 is a screening tool and severity measure for Generalised Anxiety Disorder (GAD) [26]. It consists of seven items with four-point Likert-type scale responses coded in the same fashion as the PHQ-9. The maximum score is 21 indicating severe anxiety, the minimum 0. A score of ≥10 has been validated as sensitive (89%) and specific (73%) against a SCID diagnosis of any anxiety disorder for a Zimbabwean primary care population (Cronbach's α = 0•87) [24]. The GAD-7 is often used as a general screening tool and symptom severity measure for four common anxiety and stress-related disorders including GAD, Panic Disorder, Social Anxiety, and Post-Traumatic Stress Disorder [27].

3.3. Co-variables

Socio-demographic variables were measured through a locally adapted questionnaire developed for similar studies previously conducted in this setting [28−31]. These studies found recent negative life events, poverty and female gender to be associated with common mental disorders. Younger age of onset of depression and less education are associated with worse outcome so we wanted to test age and education in our analyses. Adolescence is defined as up to the age of 24 [32,33]. Further variables such as age, marital status, religion, education, employment, chronic illness, hazardous drinking, and

disability were also measured in the original trial, and were included in our analysis for a more comprehensive understanding of the socio-demographic factors affecting anxiety and depression. Disability was measured using the World Health Organization Disability Assessment Scale (WHODAS), a generic assessment instrument measuring health and disability through six domains in life (cognition, mobility, self-care, getting along, life activities and participation). Higher scores on the WHODAS indicate greater disability [34].

The Alcohol Use Disorder Identification Test (AUDIT) was used to identify hazardous drinking. This ten-item five-point Likert-style questionnaire is recommended by the WHO as a screening tool for detecting alcohol use disorders internationally [35,36]. The WHO recommended score of ≥8 was used to define hazardous alcohol consumption. HIV status was ascertained by self-report. Exposure to negative life events in the previous six months was measured using a Shona version of the Brief List of threatening events, adapted and used for previous research in Zimbabwe [30].

3.4. Statistical analysis

Data were collected using tablet computers, uploaded to a secure server using cloud computing technology and exported to Stata 14 for cleaning and analysis. The level of follow up was high (92•9%) and we conducted a complete case analysis. All analyses for this paper were conducted in Stata 15 using random-effects logistic regression to adjust for clustering by clinic. Given that being in the intervention arm was strongly associated with less persistent depression, analyses of factors associated with persistent depression were stratified by intervention arm. Variables associated with both baseline anxiety (main exposure) and persistent depression (outcome) in one or both arms were identified as potential confounders, and were included (with baseline depression category, age and sex as a-priori specified confounders), in an initial multivariable random effects logistic regression model. Variables were retained if they acted as confounders in this model by changing the crude odds ratio by 10% or more. Effect-modification, between intervention arm and baseline anxiety, for the effect of anxiety on depression, was assessed by fitting an interaction term between baseline anxiety and intervention arm. Sensitivity analysis were conducted using multiple imputation for participants with missing outcome data. Endline depression data for the individuals with missing data were imputed assuming data were missing at random, using logistic regression adjusting for baseline variables and for clustering by site as a fixed effect, using augmented-regression to handle perfect prediction [37] and five

Table 1
Baseline factors associated with persistent depression, by trial arm.

	Intervention arm			Enhanced Usual Care arm		
Baseline characteristic	Total	Persistent depression (%)	Univariable OR (95% CI)	Total	Persistent depression (%)	Univariable OR (95% CI)
Total	**172**	**30 (17•4%)**	••	**157**	**92 (58•6%)**	••
Age group			*P* = 0.17			*P* = 0.24
18–24	35	7 (20.0%)	1	19	14 (73.7%)	1
25–34	65	7 (10.8%)	0.48 (0.15–1.51)	66	40 (60.6%)	0.54 (0.17–1.74)
>=35	72	16 (22.2%)	1.14 (0.42–0.57)	72	38 (52.8%)	0.39 (0.12–1.25)
Sex	••	••	*P* = 0•14	••	••	*P* = 0•74
Female	152	24 (15•8%)	1	131	76 (58•0%)	1
Male	20	6 (30•0%)	2•29 (0•80–6•54)	26	16 (61•5%)	1•17 (0•48–2•86)
Religion	••	••	*P* = 0•03	••	••	*P* = 0•37
Christian	161	25 (15•5%)	1	141	81 (57•5%)	1
Other/none	11	5 (45•5%)	4•53 (1•28–16•00)	16	11 (68•8%)	1•67 (0•53–5•26)
Education	••	••	*P* = 0•97	••	••	*P* = 0•17
<=Primary	98	17 (17•7%)	1	98	62 (63•3%)	1
>=Secondary	74	13 (17•6%)	1•02 (0•46–2•25)	59	30 (50•9%)	0•62 (0•31–1•22)
Employment	••	••	*P* = 0•18	••	••	*P* = 0•22
Unemployed	58	7 (12•1%)	1	67	41 (61•2%)	1
Permanent employment	36	9 (25•0%)	2•43 (0•81–7•24)	29	20 (69•0%)	1•27 (0•47–3•43)
Casual/self	78	14 (18•0%)	1•59 (0•60–4•24)	61	31 (50•8%)	0•59 (0•28–1•26)
Go to sleep hungry	••	••	*P* = 0•72	••	••	*P* = 0•59
No	114	19 (16•7%)	1	111	67 (60•4%)	1
Yes	58	11 (19•0%)	1•17 (0•52–2•66)	46	25 (54•4%)	0•82 (0•40–1•69)
AUDIT score	••	••	*P* = 0•94	••	••	*P* = 0•25
<8	160	28 (17•5%)	1	141	81 (57•5%)	1
>=8	12	2 (16•7%)	0•94 (0•20–4•54)	16	11 (68•8%)	1•96 (0•60–6•35)
HIV status	••	••	*P* = 0•30	••	••	*P* = 0•66
Negative	76	12 (15•8%)	1	65	36 (55•4%)	1
Positive	72	11 (15•3%)	0•96 (0•39–2•34)	75	47 (62•7%)	1•37 (0•67–2•77)
Declined	24	7 (29•2%)	2•20 (0•75–6•43)	17	9 (52•9%)	1•01 (0•33–3•13)
Disability score	••	••	*P* = 0•004	••	••	*P* = 0•26
WHODAS <20	138	18 (13•0%)	1	129	73 (56•6%)	1
WHODAS >=20	34	12 (35•3%)	3•63 (1•54–8•60)	28	19 (67•9%)	1•65 (0•68–4•02)
Depression score (PHQ-9)	••	••	*P* = 0•09	••	••	*P* = 0•0004
10–14 (moderate)	70	7 (10•0%)	1	57	22 (38•6%)	1
15–19 (moderately severe)	70	16 (22•9%)	2•66 (1•02–6•96)	67	47 (70•2%)	4•02 (1•83–8•86)
20–24 (severe)	32	7 (21•9%)	2•52 (0•80–7•92)	33	23 (69•7%)	4•32 (1•61–11•57)
Anxiety (GAD-7)	••	••	***P* = 0•08**	••	••	***P* = 0•001**
GAD-7<10	**46**	**4 (8•7%)**	**1**	**31**	**9 (29•0%)**	**1**
GAD-7>=10	**126**	**26 (20•6%)**	**2•73 (0•90–8•31)**	**126**	**83 (65•9%)**	**5•36 (2•14–13•41)**
Negative life events	••	••	*P* = 0•72	••	••	*P* = 0•50
0–1	13	3 (23•1%)	1	6	3 (50•0%)	1
2–4	85	13 (15•3%)	0•60 (0•15–2•49)	94	52 (55•3%)	1•24 (0•22–6•89)
5 or more	74	14 (18•9%)	0•78 (0•19–3•20)	57	37 (64•9%)	1•84 (0•32–10•54)

imputed datasets. Collinearity of estimated coefficients in the final model was checked using correlation matrix of coefficients in the final regression model.

3.5. Role of the funding source

The funder had no role in data analysis or interpretation of results.

4. Results

4.1. Study participants

Recruitment took place from September to December 2014. A total of 573 participants were enrolled into the original trial (287 in the EUC arm and 286 in the intervention arm). This represents 85% of those eligible to take part (100/673 refused) based on screening of consecutive primary care attenders.[21] Of these, 354 (62·0%) met criteria for probable major depression at baseline (PHQ-9 9 ≥ 11). Of those who met the criteria, 186 were in the intervention arm and 168 in the EUC arm. Data on depression at six-month follow-up was available for 329 (92·9%) participants. Overall 122 (37·1%) had persistent depression at six months; 58·6% in the control arm and 17·4% in the intervention arm. This also means that 41·4% of the control arm 82·6% in the intervention arm had remitted below PHQ-9 cut-point at six months follow-up. Table 1 shows baseline factors associated with persistent depression.

There was evidence from univariable analysis that baseline anxiety and depression were associated with persistent depression among participants in both arms (Table 1). The odds ratio for the association for baseline anxiety and persistent depression in the treatment arm was 2·73 (95%CI 0·90–8·31) and in the EUC arm was 5·36 (95%CI 2·14–13·41). Having greater disability and being of non-Christian religion, or having no religion, at baseline were associated with persistent depression in the intervention arm only.

Prevalence of baseline co-morbid anxiety was high (76·6%) and co-morbid anxiety was associated with non-Christian religion, baseline AUDIT score, greater disability and depression score, and number of negative life events. Specifically, the following recent life events were associated with anxiety: loss of accommodation, divorce, domestic upheaval, experience of violence (Table 2). Religion, greater disability and depression score were included as potential confounders in the multivariable model.

As shown in Table 3, there was evidence of an association between baseline anxiety and persistent depression after adjustment for confounders (adjusted OR = 2·83, 95%CI 1·32–6·07). There was no evidence of effect modification by arm in the multivariable model (interaction OR = 0·58, 95%CI 0·13–2·51) so, as shown in Table 3, the final model includes data for both arms. Results were similar using multiple imputation for the 25 participants with missing outcome data on persistent depression (adjusted OR = 2.87, 95%CI 1.30–6.30). There was little evidence of collinearity between coefficients in the multivariable regression model (results not shown).

Table 2
Baseline factors associated with co-morbid anxiety disorder at baseline.

Baseline characteristic	Total	Anxiety (%)	Univariable OR (95% CI)
Total	**329**	**252 (76•6%)**	••
Sex	••	••	*P* = 0•14
Female	283	213 (75•3%)	1
Male	46	39 (84•8%)	1•83 (0•78–4•30)
Age group	••	••	*P* = 0•31
18–24	54	38 (70•4%)	1
25–34	131	105 (80•2%)	1•76 (0•84–3•71)
>=35	144	109 (75•7%)	1•34 (0•66–2•72)
Marital status	••	••	*P* = 0•97
Married/cohabiting	209	161 (77•0%)	1
Divorced/separated/widowed	103	78 (75•7%)	0•94 (0•54–1•64)
Single	17	13 (76•5%)	0•95 (0•29–3•08)
Religion	••	••	*P* = 0•003
Christian	302	226 (74•8%)	1
Other	27	26 (96•3%)	8•72 (1•16–65•5)
Education	••	••	*P* = 0•64
<=Primary	196	149 (76•0%)	1
>=Secondary	133	103 (77•4%)	1•08 (0•64–1•83)
Employment	••	••	*P* = 0•23
Unemployed	125	101 (80•8%)	1
Permanent employment	65	51 (78•5%)	0•87 (0•41–1•83)
Casual/self-employed	139	100 (71•9%)	0•61 (0•34–1•10)
Chronic illness	••	••	*P* = 1•00
No	239	183 (76•6%)	1
Yes	90	69 (76•7%)	1•00 (0•56–1•79)
Go to sleep hungry	••	••	*P* = 0•52
No	225	170 (75•6%)	1
Yes	104	82 (78•9%)	1•20 (0•68–2•11)
AUDIT score	••	••	*P*<0•002
<8	301	224 (74•4%)	1
>=8	28	28 (100%)	n/a
HIV status	••	••	*P* = 0•77
Negative	141	106 (75•2%)	1
Positive	147	115 (78•2%)	1•22 (0•69–2•16)
Declined to say	41	31 (75•6%)	1•03 (0•46–2•35)
Disability score	••	••	*P* = 0•05
WHODAS <20	267	199 (74•5%)	1
WHODAS >=20	62	53 (85•5%)	2•05 (0•95–4•42)
Depression score	••	••	*P*<0•001
10–14	127	72 (56•7%)	1
15–19	137	117 (85•4%)	4•49 (2•48–8•15)
20–24	65	63 (96•9%)	24•14 (5•65–103•24)
Negative life events	••	••	*P* = 0•0006
0–1	19	10 (52•6%)	1
2–4	179	129 (72•1%)	2•32 (0•89–6•05)
5 or more	131	113 (86•3%)	5•65 (2•02–15•81)

5. Discussion

We carried out secondary analysis of data from a clinical trial of the Friendship Bench intervention for common mental disorders in Zimbabwe. The active intervention mainly consisted of individual problem-solving therapy delivered on a bench by a grandmother lay worker and the control comprised brief psychoeducation. Of those who met criteria for probable major depression at trial baseline, 59% in the control arm and 17% in the intervention arm had persistent depression at six-month follow-up. We found that significant anxiety at trial baseline, defined as GAD-7 score above validated cut-point for generalised anxiety [21], was an independent predictor of persistent depression, and that the effect of anxiety was present in both the intervention arm and the enhanced usual care arm. As far as we know this is the first report of this finding from a low-income country. This is in keeping with evidence from a systematic review of longitudinal studies, mainly from high-income countries, which found anxiety symptoms and disorders (including post-traumatic stress disorder) to predict depression symptoms and depressive disorders [18] and with major clinical studies in high-income countries including the STAR-D trial [17] which have found anxiety to predict slower response to depression treatment [16]. We found that depression severity at baseline was also an independent predictor for persistent depression at six-month follow-up, as has been clearly shown in a systematic review of studies from HIC [4].

There are several reasons why a high score on the GAD-7 may predict persistent depression in this setting. Firstly, mixed generalised anxiety and depression might best be conceptualized as manifestations of a single underlying syndrome. Indeed, the cultural idiom linked mostly closely to depression in Zimbabwe, and in several other African countries, is “thinking too much” [38]. A systematic review of this symptom, or expression, found that in some cultural settings it seemed to indicate a broader syndrome of depression which included a mixture of anxiety symptoms [39]. However, against this view of GAD being part of major depression are differences in risk factors for

Table 3
Multivariate association of baseline characteristics with persistent depression.

Baseline characteristic	Total	Persistent depression (%)	Adjusted OR (95% CI)
Anxiety	••	••	*P* = 0•007
GAD-7<10	77	13 (16•9%)	1
GAD-7>=10	252	109 (43•3%)	2•83 (1•32–6•07)
Arm	••	••	*P*<0•001
EUC	157	92 (58•6%)	1
Intervention	172	30 (17•4%)	0•12 (0•07–0•22)
Age group	••	••	*P* = 0•27
18–24	54	21 (38•9%)	1
25–34	131	47 (35•9%)	0•52 (0•24–1•16)
>=35	144	54 (37•5%)	0•58 (0•27–1.26)
Sex	••	••	*P* = 0•33
Female	283	100 (35•3%)	1
Male	46	22 (47•8%)	1•28 (0•58–2•81)
Religion	••	••	*P* = 0•17
Christian	302	106 (35•1%)	1
Other	27	16 (59•3%)	1•99 (0•74–5•29)
Depression score	••	••	*P* = 0•02
10–14	127	29 (22•8%)	1
15–19	137	63 (46•0%)	2•43 (1•28–4•60)
20–24	65	30 (46•2%)	1•82 (0•82–4•05)
Disability score	••	••	*P* = 0•04
WHODAS <20	267	91 (34•1%)	1
WHODAS >=20	62	31 (50•0%)	2•11 (1•05–4•23)

GAD and major depression, and divergences in illness course [40,41]. A different way to understand this is that the fear and sense of threat which characterise anxiety and stress-related disorders tend to provoke avoidance, whereas lack of interest and slowing in depression tends to lead to social withdrawal. Avoidance and withdrawal could, through separate pathways, both contribute to persistent depression through failure to deal with difficult problems and through self-denial of activities which might have given a sense of achievement and thus aided recovery. A further consideration is that trauma experiences are common in people using primary care in low-income countries including Zimbabwe, and past trauma may have worsened depression recovery [42,43]. The GAD-7 scale may have been detecting anxiety as part of post-traumatic stress disorder which is known to predict persistent depression in primary care in HIC [44].

One limitation of this study is that measurement of anxiety and of depression relied on screening scales rather than diagnoses. However, we had validated the GAD-7 and the PHQ-9 and found they had good psychometric properties against diagnoses made using the SCID [21]. Another limitation is that we define severity of depression by adding up the scores for individual depressive symptoms. However, individual symptoms may not have different weights in the manifestation of severity of depression and increasingly depression is being viewed as a heterogenous disorder [45]. Another limitation is the follow-up of only six months. A longer follow-up period (e.g. one year) would allow for a better understanding of the long-term effects of the intervention on persistent depression. Strengths of the study, which support generalisability to other countries in the region, is that the study sample came from screening consecutive government primary care clinic attenders, and 85% of those meeting inclusion criteria took part. The evidence for the impact of baseline anxiety on worse depression outcome was strong at $p < 0{\cdot}001$.

These findings from Zimbabwe add to the global evidence that comorbid anxiety is an independent predictor of persistent depression [11,46,4,18,19]. Treatment for depression in LMIC should be directed towards those with greatest need, including those with more anxiety symptoms and greater depression severity at initial assessment. Further research is needed to explore whether high GAD scores in LMIC indicate anxiety disorders, such as panic disorder, social anxiety or generalised anxiety, or instead indicate trauma and stress related disorders such as PTSD as these would benefit from different treatment approaches. Many of the psychological treatments being advocated for use in resource-limited settings, such as problem-solving therapy [47] and interpersonal therapy [48], while improving common mental disorders, do not specifically target fear, avoidance, excessive worry, and re-living of trauma experiences. Such treatments would include psychoeducation about coping with anxiety, self-help cognitive behavioural therapy, relaxation-training, exposure-based therapy, and serotonin-re-uptake inhibitors. More research is needed to increase access worldwide to key components of low-intensity evidence-based psychological therapies for anxiety disorders, for instance by task-shifting culturally adapted therapies based on exposure to feared situations and to reducing avoidance [49]. In contrast, for those with mild depression and little or no anxiety who present for care in LMIC, active monitoring composing brief psychoeducation and an arrangement to review in two weeks would seem justifiable before initiating more intensive therapy, as recommended in HIC [27].

Trial registration

pactr.org Identifier: PACTR201410000876178.

Data sharing

Part of the intervention trial data can be found at http://datacompass.lshtm.ac.uk/455/. Further information can be obtained by Dr. Victoria Simms at Victoria.simms@lshtm.ac.uk.

Declaration of Competing Interest

We declare no conflicts of interests.

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Supplementary materials

Supplementary material associated with this article can be found in the online version at doi:10.1016/j.eclinm.2020.100333.

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