

WORKING PAPER
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STRONGMINDS[®]

EVALUATION REPORT

**Depression Symptoms, Functionality
and Wellbeing Indicators**

**Post-therapy follow-up at 2 weeks, 6 months & 12 months
for the 2024 cohort**

StrongMinds Evaluation Report

Post-Therapy Follow-up at 2 Weeks, 6 Months & 12 Months for the 2024 Cohort

May 28, 2026

Working Paper

Summary

StrongMinds commissioned independent psychologists to conduct interviews with clients who had received treatment in the second treatment cycle of 2024. A total of 397 clients (272 in Uganda and 125 in Zambia) were interviewed 12 months post-therapy. We were able to reach 64.7% of enrolled clients across both countries.

Clients treated in 2024 continue to show reduced depressive symptoms twelve-months post-therapy. Across Uganda and Zambia, the overall average PHQ-9 scores decreased from 15.3 before therapy to 3.3, 3.1, and 3.2 at 2 weeks, 6 months, and 12 months post-therapy, respectively. In Uganda, PHQ-9 scores went from 15.2 before therapy to 3.2 at two weeks post-therapy, 3.8 at 6 months post-therapy, and 3.7 at 12 months post-therapy, while in Zambia, average PHQ-9 scores reduced from 15.6 to 3.5 at two weeks post-therapy, to 2.5 at 6 months post-therapy, and 2.1 at 12 months post-therapy. Changes in functional difficulty, subjective well-being, depressive symptoms and secondary indicators are also presented and generally show improvement at 2 weeks, 6 months, and 12 months post-treatment in comparison to before treatment.

While attrition at the 12-month follow-up was substantial, it does not appear to be biased on observable characteristics in Zambia. In Uganda, attrition was biased in one district within a single Partner program (14% of the total sample), where non-respondents had slightly higher depressive symptom levels in earlier follow-up rounds.

Methodology

Evaluation method and sample

This evaluation measures changes in the outcomes of StrongMinds clients in Uganda and Zambia, using a simple pre-post design. In each country, the evaluation initially included 400 clients, assessed prior to treatment.



In Uganda, the sample comprised 132 adults and out-of-school adolescents, 132 in-school adolescents randomly selected from 4 districts (Kampala, Wakiso, Kotido and Mbale), and 136 clients selected from two NGO partner districts (Kamuli and Kanungu). Districts were purposely sampled to ensure that: (1) mean PHQ-9 outcomes in sampled districts did not differ from those of the overall population of treated clients using 2023 data; (2) geographic representation across all regions where StrongMinds operated was maintained; and (3) no new districts were included. The selected districts represented 47% of all adult and out-of-school clients, 33% of student clients, and 26% of NGO partner clients. Within each district, StrongMinds facilitators were randomly selected, after which four eligible clients per facilitator were randomly sampled from individuals screened positive using the PHQ-4 assessment.

In Zambia, the sample comprised 132 clients from the Ministry of Health (MoH) program in Kabwe district, 148 clients from the Peer facilitator program in Lusaka and Kabwe districts, and 120 clients from an NGO partner program. The MoH program only existed in Kabwe at the time of sampling. Although smaller NGO partner programs also existed in Southern and Western districts, these were excluded from this study. Within the Peer Facilitator program, sampling was stratified across 7 areas in Lusaka. Across all programs, facilitators were randomly selected first, after which 4 clients per facilitator were randomly sampled from individuals identified through PHQ-4 screening.

At the point of screening, individuals scoring below 10 on the PHQ-9 were considered ineligible for treatment and for participation in the evaluation. Ineligible individuals were replaced with randomly selected eligible clients from the same facilitator to maintain the sampling structure.

Data collection

Client journey

StrongMinds programming and monitoring proceed as follows: facilitators and StrongMinds staff conduct community mobilization and sensitization on mental health, mental illness, and depression, before any therapy sessions. People that identify themselves with depressive symptoms are then screened / pre-assessed using the PHQ-4. A second screening using the PHQ-9 tool is done after 2 weeks to confirm depression. People found depressed (i.e. scoring 10 points and above) are assigned groups to start the six-week therapy sessions. Upon completing therapy, the clients are assessed with the PHQ-9 tool again to measure whether there has been any change in the depression symptoms.

Baseline

Data was collected by independent psychologists who were trained by the StrongMinds country M&E and Program staff. At pre-treatment, psychologists were introduced to the potential clients



by the StrongMinds facilitators who had screened them with the PHQ-4. The psychologists then would conduct their interviews in private, without the facilitator. If the potential client scored 10 or higher on the PHQ-9 scale, they were eligible for treatment. Potentially suicidal clients were immediately referred to StrongMinds staff for management, following StrongMinds' suicide protocol.

Data was collected using the Kobo Toolbox. Extensive data quality procedures were used. These included daily data checks by M&E staff, and extensive audio audits. Any typing errors (client name, program type) were noted down by the psychologists and shared with the M&E staff for data cleaning. The main outcome was the Patient Health Questionnaire-9 (PHQ-9) score. PHQ-9 is a 9-item scale used to assess the severity of depressive symptoms. The PHQ-9 asks how often respondents have been bothered by different depressive symptoms in the past 2 weeks. Responses are rated on a 4-point Likert-type scale, ranging from 0 (not at all) to 3 (nearly every day). The total score can range from 0 to 27, with higher scores meaning higher levels of depressive symptoms.

Therapy

In StrongMinds therapy groups, facilitators create a safe space for clients to open up to peers about their worries and struggles. Over six sessions, these lay counselors guide structured discussions to help participants identify their underlying triggers of depression and examine how their interpersonal relationships and depression symptoms are linked. Group members work together to strategize solutions to their problems, learn coping mechanisms, practice interpersonal skills, complete homework, and identify support structures that they can continue to lean on after therapy has ended.

Post-therapy follow-up; two weeks, six months & 12 months follow-up

Independent psychologists conducted in-person assessments at the two-week follow-up, and phone-based assessments at six-month follow-up. At the twelve-month follow-up, in-person assessments were preferred, while telephone surveys were used as an alternative when clients could not be reached physically. This mixed approach balanced the need for comprehensive data collection with practical considerations of participant accessibility and retention.

Analysis

The main outcome variables are means or proportions of levels, analyzed using Stata.

Results

Sample & Attrition

Baseline and two-week post-treatment follow-up

Uganda: In the adult and out-of-school sample, 118 out of 133 (88.7%) completed pre- and post-treatment interviews, as did 124 of 133 (93.2%) NGO clients and 123 of 139 (88.5%) students.¹ Of these, 1 partner client, 1 adult client and 3 students did not attend any sessions and were excluded from the analysis. The sample size after the two-week follow-up was 360 for Uganda.

Zambia: The evaluation for the NGO program had to be canceled during pre-treatment data collection for practical reasons.² Following this, the sample size for the other two programs was slightly increased to make use of available data collection time. For the MoH program, 149 out of 160 clients (93.1%) completed pre- and post-treatment interviews, as did 158 of 170 Peer program clients (92.4%). Of these, 5 MoH clients and 1 peer client did not attend any sessions and were excluded from the analysis. In addition, 49 MoH clients and 42 Peer clients were removed from analysis, as they were accidentally included in the study without being part of the sampling plan.³ The sample size after the two-week follow-up was 215 for Zambia.

Subsequent follow-up rounds attempted to resurvey only those who had been included at the two-week post-treatment follow-up, whereas they should have included everyone from the baseline sample. This was an error, though since attrition was less than 10% across both countries the effect was minimal. In table 1 below, “percentage of eligible clients surveyed,” is calculated based on those who completed the two-week survey.

A total of 397 clients were surveyed 12 months post-treatment while 178 clients were not surveyed. Table 1 below shows that overall, we were able to survey 69.0% of eligible clients twelve-months post-treatment: 72.5% in Uganda, and 58.1% in Zambia. Reasons for not being reached during the 12 months follow-up are given below.

Table 1: Characteristics of clients reached

	Uganda	Zambia	Combined
Baseline	381	233	614

¹ The pre-treatment sample slightly exceeded the sample set in the study design

² The psychologists that conducted the interviews needed to ask students to stay late after school in order to complete their interviews before treatment began. This was unacceptable to parents and the NGO partner, so this portion of the evaluation was terminated.

³ Specifically, the plan was to sample only 4 eligible clients per facilitator, but some psychologists included extra clients for some non-random facilitators

Initial sample: surveyed two-weeks post-treatment	360	215	575
Surveyed at twelve-months post-treatment	272	125	397
Not surveyed at twelve-months post-treatment	88	90	178
Percentage of eligible clients surveyed at twelve-months	75.6%	58.1%	69.0%
Percentage of enrolled clients surveyed at twelve-months	71.4%	53.6%	64.7%
<u>Reason not surveyed</u>			
Busy	0	16	16
Sick	0	1	1
Unable to locate client	21	73	94
Changed location/school	31	0	31
No reason given	36	0	36

Table 2: Characteristics of clients who were surveyed versus not at the 12-month follow-up

Indicator	Uganda			Zambia		
	Surveyed (n)	Not-surveyed (n)	p-value	Surveyed (n)	Not-surveyed (n)	p-value
PHQ-9, baseline	15.17	15.15	0.967	15.69	15.43	0.619
PHQ-9, 2 weeks	2.93 (265)	4.06 (95)	0.038	3.03 (125)	3.79 (176)	0.156
PHQ-9, 6 months	3.28 (68)	5.04 (28)	0.082	2.39 (96)	2.89 (36)	0.573
SWB, baseline	3.44 (272)	3.75 (106)	0.324	2.51 (123)	2.62 (173)	0.640
SWB, 2 weeks	7.11 (262)	7.09 (95)	0.950	7.25 (125)	6.76 (172)	0.137
SWB, 6 months	7.06 (68)	6.5 (28)	0.294	8.24 (96)	8.03 (36)	0.645
Age	28.9	24.1	0.005	38.3	35.5	0.075
Female	75.9%	85.3%	0.056	93.60%	96.59%	0.255
n	272	106		125	176	

Table 2 above, compares the attrition analysis of surveyed and non-surveyed participants at 12-month follow-up to test for attrition bias, with findings differing notably between Uganda and Zambia. In Uganda, baseline PHQ-9 scores were nearly identical between surveyed and non-surveyed groups (15.17 vs. 15.15, $p=0.967$), as were subjective well-being scores (3.44 vs. 3.75, $p=0.324$), indicating that initial symptom severity did not predict study retention. However, surveyed clients were significantly older (28.9 years vs. 24.1 years, $p=0.005$), suggesting that younger participants were underrepresented at the 12-month follow-up. Those not surveyed were also more likely to be female (84.3% vs. 75.9%, $p=0.056$). More problematically, those not surveyed had higher PHQ-9 scores at 2 weeks (4.06 vs. 2.93, $p=0.038$) and 6-months (5.04 vs. 3.28, $p=0.082$), which indicates some biased attrition.

To understand whether our results are biased, we break out the analysis of attrition to the various programs within Uganda. This shows that almost all of the biased attrition is due to the Partner program, which only 52 of 123 clients were followed up with, and those who were contacted were less likely to have been depressed two-weeks after therapy. The attrition in the Health program might appear biased at first glance, but only 6 out of 71 people were not reached, their mean is high due to 1 individual who scored 18, and the difference is not statistically significant.

Table 3: Program-wise comparison of attrition within Uganda: 2-week follow-up PHQ-9

Program	Surveyed (n)	Not-surveyed (n)	p-value
Health, adults	3.02 (65)	6.50 (6)	0.2586
School	3.44 (91)	3.21 (29)	0.7575
Out of School	2.76 (38)	2.38 (8)	0.7531
Partner	2.32 (71)	4.52 (52)	0.0108

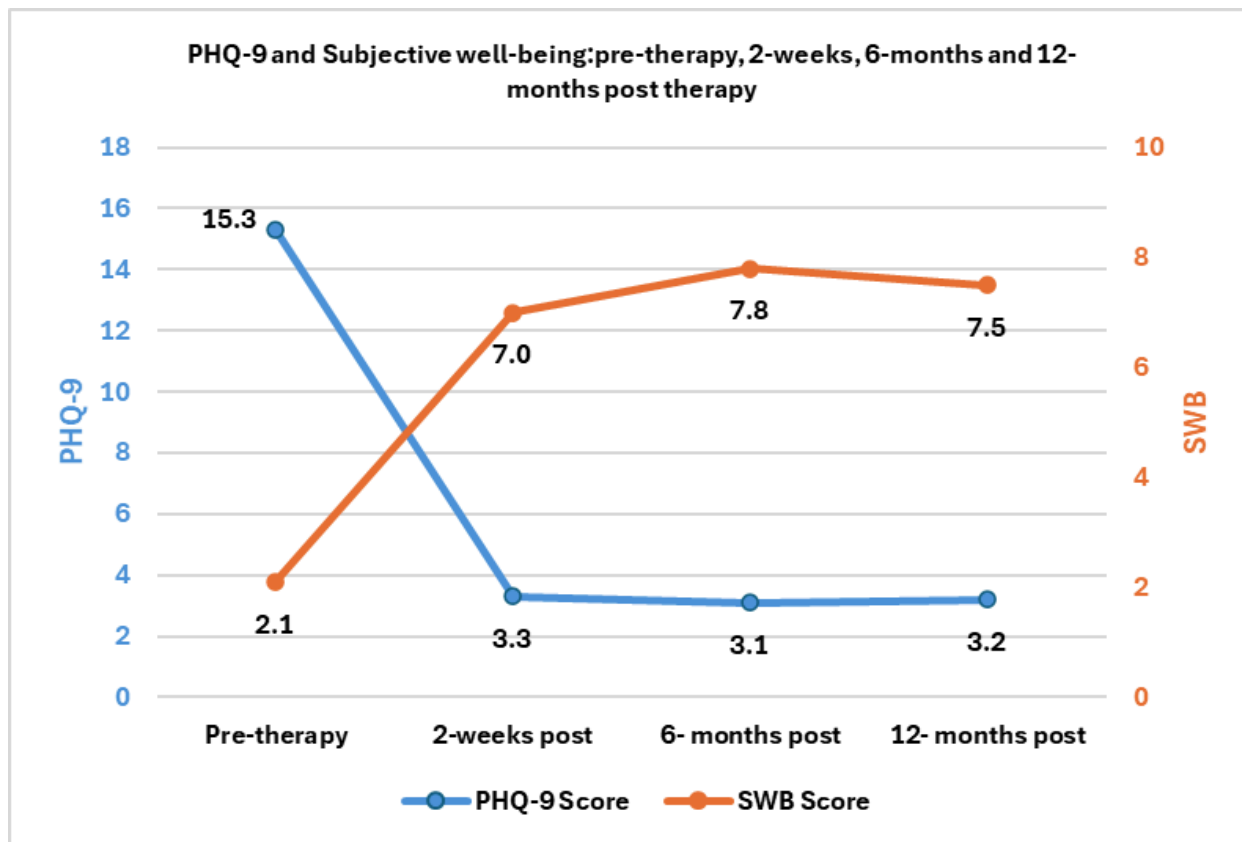
Two Partner programs were included in the evaluation, shown below in Table 4 by their districts. Only one District, Kamuli, had minor differences between those surveyed and not, and this was not statistically significant. However, because so many were not surveyed (41 out of 56), and because this program's outcomes were significantly worse than for other programs, this biased the overall results. When we exclude this one Partner program with high attrition from the overall results, then there is no attrition bias ($p = 0.631$)

Table 4: District-wise comparison of attrition within Uganda: 2-week follow-up PHQ-9

District	Surveyed (n)	Not-surveyed (n)	p-value
Kamuli	4.07 (15)	5.27 (41)	0.4383
Kanungu	1.86 (56)	1.73 (11)	0.8913

Results from Zambia revealed no evidence of attrition bias, with none of the comparisons between surveyed and non-surveyed clients reaching statistical significance. Baseline PHQ-9 values were comparable between groups (15.69 vs. 15.43, $p=0.619$), as were subsequent scores at 2-weeks (3.03 vs. 3.79, $p=0.561$) and 6-months follow-ups (2.39 vs. 2.89, $p=0.573$). Subjective well-being scores similarly showed no significant differences at any follow-up timepoint, with both groups reporting comparable levels. Age and gender characteristics in Zambia also showed no significant differences, with p-values well above the 0.05 threshold, indicating that the retained sample remained representative of the original cohort despite attrition.

Graph 1. PHQ-9 and Subjective well-being: pre-therapy, 2-weeks, 6-months and 12-months post-therapy



Graph 1 above shows how StrongMinds clients have fared over time in terms of depressive symptoms (PHQ-9) and subjective well-being, across both countries. Depressive symptoms dropped from an average of 15.3 pre-treatment to 3.3 two-weeks post-treatment to 3.1 six-months post-treatment and remained stable at 3.2 twelve-months post-treatment. These clients' subjective well-being scores naturally showed the inverse trend. Before treatment, the average score was 3.1, which is well below the national average. The scores improved to 7.0, 7.6, and 7.5, which is above national averages.

Table 3 below, presents main PHQ-9 related outcomes. Both countries had nearly identical mean PHQ-9 scores (~15.5) before treatment. However, at 12 months post-treatment, PHQ-9 scores dropped significantly to 3.7 in Uganda and 2.1 in Zambia. Zambia achieved a slightly greater symptom reduction (13.4 points) compared to Uganda's 11.5 points with both results being statistically significant ($p=0.05$). Across both countries, 70.8% of the clients are still depression free 12 months post-treatment with Uganda (66.2%) and Zambia (80.8%). The sustained reduction in severe depression categories is encouraging: at baseline, participants

were experiencing moderate to severe depression, yet by twelve months, only 1.3% remained in the moderately-severe range and just 0.5% in the severe category for both Uganda and Zambia.

Table 3: PHQ-9 based indicators

	Uganda (n)	Zambia (n)	Uganda & Zambia (n)
Baseline treatment	15.2 (378)	15.5 (301)	15.3 (679)
2 weeks post-treatment	3.2 (360)	3.5 (301)	3.3 (661)
6-months post-treatment	3.8 (96)	2.5 (132)	3.1 (228)
12-months post-treatment	3.7 (272)	2.1 (125)	3.2 (397)
Score change (pre-treatment to 12-months post-treatment)	11.5	13.4	12.1
<u>Depression status at 2-weeks post-treatment</u>			
Depression free, 0-4	71.1%	71.4%	71.3%
Mild, 5-9	20.6%	17.9%	19.4%
Moderate, 10-14	6.1%	7.0 %	6.5%
Mod-severe, 15-19	2.2%	3.0%	2.6 %
Severe, 20+	0.0%	0.7%	0.3%
<u>Depression status at 6-months post-treatment</u>			
Depression free, 0-4	67.7%	81.1 %	75.4 %
Mild, 5-9	20.8%	9.1 %	14.0%
Moderate, 10-14	9.4 %	6.2 %	7.9 %
Mod-severe, 15-19	2.1%	1.5%	1.8%
Severe, 20+	0.0 %	1.5 %	0.9%
<u>Depression status at 12-months post-treatment</u>			
Depression free, 0-4	66.2%	80.8 %	70.8 %
Mild, 5-9	25.4%	14.4 %	21.9 %
Moderate, 10-14	6.3 %	4.0 %	5.5 %
Mod-severe, 15-19	1.5%	0.8 %	1.3 %
Severe, 20+	0.7 %	0.0 %	0.5 %

Table 4 presents the results from the functional difficulty question, which is asked immediately after the PHQ-9: “How difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?” This question aligns with the WHO’s International Classification of Functioning, Disability, and Health,⁴ which includes physiological functions, activities such as work, and participation in society. The functional impairment

⁴ WHO, accessed Nov. 2024:
<https://www.who.int/standards/classifications/international-classification-of-functioning-disability-and-health>

question is a quick way to assess the practical effects of depressive symptoms on key domains of life. In clinical settings, responses of “very difficult” or “extremely difficult” can indicate a need for more intensive interventions, such as psychotherapy, medication, or combined approaches. These responses are predictive of slower recovery and poorer treatment outcomes compared to “not difficult” or “somewhat difficult” responses.

Both countries experienced large reductions in difficulty functioning from 63.5% to 6.6% 12 months after treatment. In Uganda, the proportion of clients reporting “very” or “extremely” difficult in functioning dropped sharply from 67.5% pre-treatment to 7.0% while in Zambia the proportions fell from 58.5% to 6.6% 12 months post treatment.

Table 4: Functioning difficulty

Baseline treatment	Uganda (n =378)	Zambia (n =301)	Uganda & Zambia (n=679)
Not difficult at all	1.3 %	2.0%	1.6%
Somewhat difficult	31.2%	39.5%	34.9%
Very or extremely difficult	67.5 %	58.5%	63.5%
2 weeks post-treatment	Uganda (n =360)	Zambia (n =301)	Uganda & Zambia (n=661)
No symptoms	33.9%	36.2%	34.0%
Not difficult at all	28.1 %	37.9%	32.5%
Somewhat difficult	29.2 %	20.3%	25.1%
Very or extremely difficult	8.9 %	5.7%	7.4%
6-months post-treatment	Uganda (n =96)	Zambia (n =132)	Uganda & Zambia (n=228)
No symptoms	26.0%	59.9%	45.6%
Not difficult at all	19.8 %	12.1%	15.4%
Somewhat difficult	50.0 %	21.2%	33.3%
Very or extremely difficult	4.2 %	6.8%	5.7%
12-months post-treatment	Uganda (n =272)	Zambia (n =125)	Uganda & Zambia (n=397)
No symptoms	25.0%	47.2%	32.0%
Not difficult at all	38.6 %	34.4%	37.3%
Somewhat difficult	29.4 %	12.8%	24.2%
Very or extremely difficult	7.0%	5.6%	6.6%

Table 5 presents the results from a subjective well-being (SWB) question used in the United Nations World Happiness Report: “Please imagine a ladder, with steps numbered from 0 at the bottom to 10 at the top. The top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time?”

Prior to treatment, clients in both Uganda and Zambia rated SWB at 3.4 and 2.5 respectively, which was below their national averages. At 12 months post-treatment, both countries demonstrated sustained significant improvements in social wellbeing, with Zambia achieving a greater mean increase 5.1 points compared to Uganda’s 3.9 points gain. Both countries exceeded their UN – reported national averages indicating the interventions’ strong effect on the client’s social wellbeing.

Table 5: Subjective well-being

SWB	Uganda	Zambia	Uganda & Zambia
Mean at pre-treatment	3.5	2.6	3.1
Mean at 2-weeks post-treatment	7.1	6.9	7.0
Mean at 6-months post-treatment	6.9	8.2	7.6
Mean at 12-months post-treatment	7.4	7.7	7.5
National average (2024)	4.5	3.9	

Source: UN World Happiness Report

Table 6 presents the self-reported recurrence of depressive symptoms in the past six months since therapy ended. We asked respondents: Try to remember how you felt before starting therapy. You reported feeling some of these symptoms: little interest or pleasure in doing things, feeling sad, depressed or hopeless, feeling tired or little energy, and some of the other symptoms I just asked you about. Have you felt that down since therapy ended?

Table 6: Recurrence of depressive symptoms:

Six-months post-treatment	Uganda (n = 96)	Zambia (n = 132)	Uganda & Zambia (n = 228)
No	68.8 %	90.9 %	81.6 %
Yes	31.2 %	9.1 %	18.4 %
Twelve -months post-treatment	Uganda (n = 174)	Zambia (n = 0)	Uganda & Zambia (n = 174)
No	75.3 %		75.3%
Yes	24.7 %		24.7%

At the 12 months follow-up, clients from Uganda demonstrated a non-recurrence rate of 75.3% for depressive symptoms, representing a significant improvement from the 68.8% non-recurrence rate observed at the six-month follow-up. Also comparative analysis at six months revealed that Zambian participants achieved a higher non-recurrence rate (90.9%) compared to their Ugandan counterparts (68.8%) at the same timepoint. As this is just a simple way to ask about relapse in a single question, and is subject to recall problems, we do not draw any strong conclusions from the results.

Table 7 further explores the persistence of depression over time, showing that of the 29% of clients who were still depressed two-weeks after therapy had ended, 56% are no longer depressed while 44% still are. And of the 71% of clients who were not depressed two-weeks after therapy, 77% remain not depressed, while 23% have relapsed into depression.

Table 7: Depression status twelve-months post-therapy conditional on two-week status, both countries

	Depressed 6-months post	Not depressed 6-months post
Depressed 2-weeks post (25%)	42.1%	57.9%
Not depressed 2-weeks post (75%)	18.7%	81.3%
	Depressed 12-months post	Not depressed 12-months post
Depressed 2-weeks post (29%)	44.1%	55.9%
Not depressed 2-weeks post (71%)	22.9%	77.1%

Figure 1 below shows how participants changed depression and remission status at two-weeks and twelve-months post therapy. The percentage figures omit those lost to follow-up. Notably:

1. The remission rate was constant at 71% in both periods
2. 13% of the 12-month sample was depressed in both follow-up periods, suggesting persistent depression. 44% of those depressed at two-weeks were depressed at the 12-month follow-up
3. By 12 months, 16% of the whole sample had relapsed out of remission. Of those in remission at two-weeks, 23% had relapsed.

Figure 1: Change in depression status from baseline to two-weeks to twelve-months post-treatment

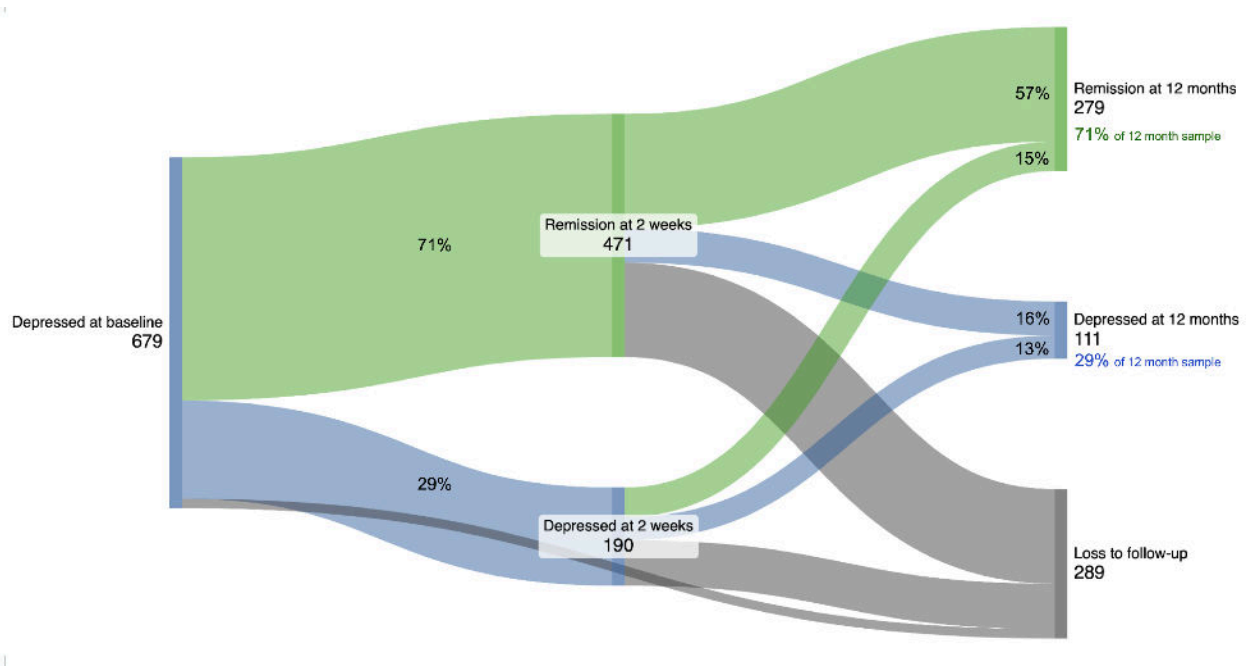


Table 8 below presents the results on whether the therapy session group still meets to support one another, without facilitator or StrongMinds involvement. A combined 65.9% of the surveyed clients in both Uganda and Zambia reported that their groups were still meeting to support one another 12 months post-treatment. In Zambia, more clients 68.6% reported that their therapy session groups still meet to support each other compared to Uganda’s 42.9%.

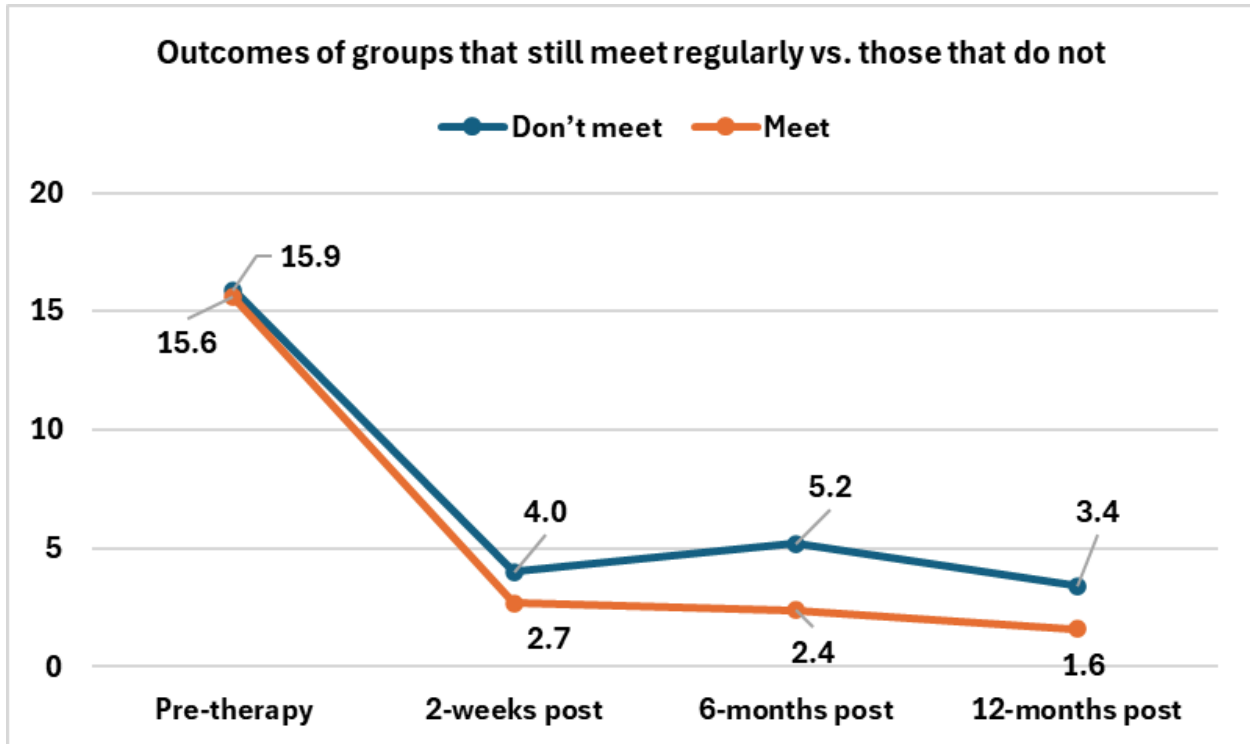
Table 8: Therapy session group still meets to provide support to one another

6-months post treatment	Uganda (n =96)	Zambia (n =132)	Uganda & Zambia (n=228)
Yes	59.4 %	87.9 %	75.9 %
No	40.6 %	12.1 %	24.1 %
12-months post-treatment	Uganda (n =14)	Zambia (n =124)	Uganda & Zambia (n=138)
Yes	42.9 %	68.6%	65.9 %
No	57.1 %	31.4 %	34.1 %

Graph 2 below shows how depressive symptoms diverge between groups that meet regularly and those that do not. Whereas both types started with virtually the same symptom levels, at 2 weeks after therapy groups that chose to meet regularly had an average PHQ-9 score 1.3 points below groups who did not meet regularly. This difference grew to 2.8 points at six-months

post-therapy and the difference reduced to 1.8 points twelve months post-therapy. Note that we cannot conclude that this difference is **purely** due to groups meeting regularly post-therapy.

Graph 2 PHQ-9 Outcomes of groups that still meet regularly vs those that do not



While our data on the relationship between group continuation and PHQ-9 outcomes is observational, not causal, there are large differences in relapse and persistence rates. For groups that do not meet regularly, 29% relapsed into depression by twelve-months, compared to only 9% for groups that continued to meet. Group continuation is also associated with less persistent depression: 56% of those depressed at two-weeks are depressed at twelve-months in groups that do not meet, versus only 30% in groups that do meet.

Table 9 Secondary indicators for students (Uganda only)

1. Did not miss school in the past week	(n = 98)
Pre-treatment	92.8%
2 weeks post-treatment	90.8%
12 months post-treatment	98.0%
Change (pre to 12 months)	5.2%
2. Grades: "good", "very good", and "excellent"	

Pre-treatment	42.0%
2 weeks post-treatment	80.8%
12 months post-treatment	69.4%
Change (pre to 12 months)	27.4%
3. Hope: "always" or "often" feel hopeful about your future	
Pre-treatment	55.8%
2 weeks post-treatment	60.0%
12 months post-treatment	58.2%
Change (pre to 12 months)	2.4%

Table 9 above shows students had a 5.2% point increase in school attendance for the prior week, and 27.4%-point increase in reporting that their grades as good, very good, or excellent, as opposed to fair or poor, at 12 months follow-up. Additionally, 58.2% of students interviewed in Uganda reported always or often feeling hopeful about their future, representing a 2.4 percentage point increase from pre-treatment. Zambia's school program, in partnership with the Ministry of Education, was in early stages of implementation when this evaluation was carried out and thus was not included in this evaluation.

Table 10: Secondary indicators

	Uganda	Zambia	Combined (Uganda & Zambia)
1. Did not miss work in the past week	(n 174)	(n = 119)	(n=293)
Pre-treatment	22.4%	24.6%	22.0%
2 weeks post-treatment	45.9%	59.1%	53.0%
12 months post-treatment	40.2%	63.9%	49.8%
Change	17.8%*	39.3%*	27.8%*
2. Meal's children had in the past 24 hours	(n= 161)	(n = 112)	(n=273)
3+ meals			
Pre-treatment	29.6%	20.6%	24.6%
2 weeks post-treatment	59.1%	30.7%	40.2%
12 months post-treatment	56.5%	39.3%	49.5%
Change	26.9%*	18.7%*	24.9%*
2+ meals			
Pre-treatment	78.2%	53.1%	64.1%
2 weeks post-treatment	92.3%	70.5%	80.3%
12 months post-treatment	94.4%	78.6%	87.9%
Change	16.2%*	25.5%*	23.8%*
# of meals			
Pre-treatment	2.1	1.6	1.8
2 weeks post-treatment	2.4	1.9	2.2
12 months post-treatment	2.5	2.1	2.3
Change	0.4*	0.5*	0.5*
3. Children did not miss school in the past week	(n =3)	n= (97)	(n=100)
Pre-treatment	57.4%	70.9%	64.7%
2 weeks post-treatment	77%	74.3%	75.9%
12 months post-treatment	100%	60.8%	62.0%
Change	42.6%	-10.1%	-2.7%
4. Have someone for support	(n = 174)	(n = 124)	(n=298)
Pre-treatment	64.1%	62.7%	63.3%
2 weeks post-treatment	79.7%	69.1%	73.8%
12 months post-treatment	86.8%	74.2%	81.5%

Change	22.7%*	11.5%*	18.2%*
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* p < 0.05. Statistically significant

Table 11: PHQ-9 related indicators by program

Uganda				
	MoH Adult (n = 72)	Out of school (n = 31)	In-school (n=98)	NGOs (n = 71)
Pre-treatment	15.0	16.5	14.3	15.7
2 weeks post-treatment	3.3	2.3	3.4	3.4
6 months post-treatment	3.7	1.8	0.0	4.4
12 months post-treatment	4.3	3.8	3.2	3.8
Symptom reduction avg.	10.7*	12.7*	11.1*	11.9*
5 pt. reduction	86.1%	93.5%	96.9%	90.1%
10 pt. reduction	61.1%	64.5%	63.2%	70.4%
Depression free, 0-4	58.3%	61.3%	72.5%	67.6%
Mild, 5-9	30.6%	32.3%	22.5%	21.1%
Moderate, 10-14	8.3%	3.2%	4.0%	8.5%
Mod-sev, 15-19	1.4%	0.0%	1.0%	2.8%
Severe, 20+	1.4%	3.2%	0.0%	0.0%

Zambia				
	MoH (n = 60)	PTG n = 65)	In- school (n=0)	NGOs (n = 0)
Pre-treatment	15.7	15.4		
2 weeks post-treatment	3.9	3.1		
6 months post-treatment	3.2	1.8		
12 months post-treatment	2.8	1.5		
Symptom reduction avg.	12.9*	13.9*		
5 pt. reduction	91.7%	96.9%		
10 pt. reduction	78.3%	86.1%		
Depression free, 0-4	75.0%	86.2%		
Mild, 5-9	16.7%	12.3%		
Moderate, 10-14	6.7%	1.5%		
Mod-sev, 15-19	1.7%	0.0%		
Severe, 20+	0.0%	0.0%		

Table 11 above provides a detailed breakdown of outcomes by specific programs in each country. Programs in both Uganda and Zambia reported significant symptom reductions in the range of 10.7 to 13.9 points with PTG in Zambia having the best outcomes. Zambia’s peer Therapy (PTG) program out-performed MOH program with 86.2% of the clients being depression free compared 75.0% for MOH program 12 months post treatment. Uganda’s programs show a moderate proportion of clients being depression free 12 months post-treatment with In-School program performing better at 72.5%, in comparison NGO led program (67.6%), out-of-school program (61.3%) and MOH program (58.3%).

Table 12: Secondary Indicators by country and program

	Uganda		
	MoH	Out of School	NGOs
1. Did not miss work in the past week	(n = 72)	(n = 31)	(n = 71)
Pre-treatment	21.1%	10.9%	24.4%
2 weeks post-treatment	30.0%	44.2%	56.5%
12 months post-treatment	25.0%	29.0%	60.6%
Change	3.9%	18.1%	36.2%*
2. Meals children had in the past 24 hours	(n = 67)	(n = 27)	(n = 67)
<u>3 meals</u>			
Pre-treatment	24.6%	21.1%	35.5%
2 weeks post-treatment	50.8%	58.1%	50.0%
12 months post-treatment	52.2%	55.6%	61.2%
Change	27.6%*	34.5%	25.7%*
<u>2+ meals</u>			
Pre-treatment	64.5%	77.3%	90.2%
2 weeks post-treatment	67.2%	68.4%	87.9%
12 months post-treatment	94.0%	88.9%	97.0%
Change	29.0%	9.1%	6.5%*
<u># of meals</u>			
Pre-treatment	1.9	1.7	2.2
2 weeks post-treatment	2.4	2.6	2.4
12 months post-treatment	2.4	2.4	2.6
Change	0.5*	0.7	0.4*
3. Children did not miss school in the past week	(n =0)	(n =3)	(n =0)
Pre-treatment	52.8%	58.5%	59.6%
2 weeks post-treatment	67.2%	67.7%	87.4%
12 months post-treatment	0.0%	100.0%	0.0%
Change	-52.8%	41.5%	-59.6%
4. Have someone for support	(n = 72)	(n = 31)	(n = 71)
Pre-treatment	60.6%	63.0%	66.7%
2 weeks post-treatment	78.6%	90.4%	75.7%
12 months post-treatment	81.9%	96.8%	87.3%

Change	21.3%*	33.8%*	20.6%*
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Zambia		
	MoH	PTG
1. Did not miss work in the past week	(n = 56)	(n = 63)
Pre-treatment	27.9%	18.3%
2 weeks post-treatment	57.0%	60.8%
12 months post-treatment	62.5%	65.1%
Change	34.6%*	46.8%*
2. Meals children had in the past 24 hours	(n =54)	(n =58)
<u>3 meals</u>		
Pre-treatment	24.0%	17.5%
2 weeks post-treatment	30.3%	31.1%
12 months post-treatment	50.0%	29.3%
Change	26.0%*	11.8%*
<u>2+ meals</u>		
Pre-treatment	57.6%	48.9%
2 weeks post-treatment	66.4%	74.2%
12 months post-treatment	85.2%	72.4%
Change	27.6%	23.5%
<u># of meals</u>		
Pre-treatment	1.7	1.5
2 weeks post-treatment	1.8	1.9
12 months post-treatment	2.3	1.9
Change	0.6*	0.4*
3. Children did not miss school in the past week	(n =24)	(n =35)
Pre-treatment	54.8%	45.2%
2 weeks post-treatment	76.5%	72.2%
12 months post-treatment	52.2%	68.6%
Change	-2.6%	23.2%
4. Have someone for support	(n = 59)	(n = 65)
Pre-treatment	63.8%	61.7%
2 weeks post-treatment	71.3%	67.1%
12 months post-treatment	77.9%	70.8%
Change	14.1%	9.1%

Table 12 above shows secondary indicators by program. In Uganda, work attendance improved significantly more for NGO programs (36.2%) compared to MoH (3.9%) and out-of-school programs (18.1%). Zambia had significant improvements in work attendance in both MoH (34.6%) and PTG programs (46.8%), similar to Uganda’s programs.



For meals, there were larger significant improvements in children eating 3 meals in the past 24 hours for the out of school program (34.5%) compared to MoH (27.6%) and NGO (25.7%) programs in Uganda. In Zambia both programs had significant improvements in children eating 3 meals in the past 24 hours with MoH (26.0%) showing larger improvements than PTG (11.8%). While children having two plus meals in the past 24 hours improved across both countries, Out-of-school and NGO programs in Uganda reported the least improvement in children having 2 plus meals. Overall meal frequency increased significantly in Uganda (0.5, 0.7 & 0.4 meals) for MoH, Out-of-school & NGO and (0.6 & 0.4 meals) for MoH & PTG programs in Zambia.

Discussion

Overall, StrongMinds clients continue to experience large reductions in depressive symptoms 12 months after therapy has ended. On average, clients' PHQ-9 score improved from 15.3 before therapy to 3.2 12 months after therapy. Close to three (2.8) out of four clients were depression-free, as defined by a total PHQ9 score less than five. These findings are broadly in line with StrongMinds' historical results, and represent a slight improvement compared to cohorts treated in 2022 and 2023, though we caution against strong conclusions due to study limitations, explained in the next section.

One new result: Nearly three out of ten of clients were depressed two-weeks post-therapy, and of those, 55.9% were not depressed twelve-months post-therapy. This suggests that clients still experience persistent depression, and might need additional support beyond StrongMinds' typical IPT-G model. We also found that of the 71% who were depression-free two-weeks after therapy, 23% had since relapsed into depression.

Another new result: our data shows that clients groups that still met regularly after therapy ended had better PHQ-9 outcomes over the period of one year follow-up compared to clients who responded that their groups were not still meeting after therapy. Those who met regularly fared significantly better at two-weeks, six-months and 12 months post-therapy, though we cannot yet conclude that this is due to the ongoing group meetings alone. Since it appears to be helpful and because groups meeting without facilitation is free to StrongMinds, this is worth additional research, especially as StrongMinds considers new, low cost models in the near future.

Conclusion

This twelve-month follow-up evaluation demonstrates that StrongMinds' six-week, lay-facilitated IPT-G model continues to deliver sustained improvements in depressive symptoms, functional impairment, and subjective well-being. Across the combined cohort, large



reductions in PHQ-9 scores were maintained at twelve months post-therapy, with over seventy percent of clients remaining depression-free. These findings add to the growing evidence that task-shifted, community-based mental health interventions can achieve durable, real-world impact at scale.

Limitations

The absence of a comparison group limits causal inference. As such, a rigorous randomized controlled trial is needed to confirm effectiveness. Whereas the surveys were administered by external research assistants, the involvement of StrongMinds staff in mobilization of respondents and their in-sight presence around interview areas might have introduced social desirability bias. In other recent research, we have developed a neutralizing prompt to administer before the PHQ-9, but have not used that in this research. Therefore, results need to be interpreted with caution. Another limitation is the ability to only reach 65% of the baseline sample at the 12 month follow-up. Since this attrition is large, we cannot rule out the possibility that those who were not reached had higher levels of depression, and their exclusion would bias our results towards lower than actual PHQ-9 scores. This attrition does not appear to be biased in Zambia and does in one district for one program in Uganda (representing 14% of the Ugandan sample).