Evaluation of the Group Problem Management Plus (Group PM+) pilot study in Oromia and Amhara Regional States, Ethiopia

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Introduction

Mental health disorders are among the leading causes of the global health-related burden. Mental health disorders are exacerbated by poverty and exposure to adversity such as conflict and negative shocks. The Global Burden of Disease Study (2020) showed that the two most disabling mental health disorders were depressive and anxiety disorders. Both ranked among the top 25 leading causes of burden worldwide in 2019, with an estimated 3 to 4 percent of the global population suffering from each (Abbafati et al. 2020). Among conflict-affected populations, estimated prevalence of mental disorders rises to 22.1 percent (Charlson et al. 2019). Despite the high prevalence, adequate care for mental illness is mainly inaccessible in low and middle-income countries. The treatment gap (the percentage of individuals who require care but do not receive the treatment) is estimated at 80% (Ridley et al. 2020).

Recent work in economics and psychology suggests that poverty and low psychological well-being may mutually reinforce each other. For example, poverty may lead to stress, which can cause mental health challenges (Chemin, De Laat, and Haushofer 2013; Hammen 2005). Conversely, mental health challenges may affect labor market participation and productivity and thus may exacerbate poverty (Haushofer and Fehr 2014; Ridley et al. 2020). This potential feedback loop suggests that interventions that alleviate poverty may effectively reduce poverty and improve mental health. Similarly, interventions targeting mental health may improve mental health and poverty. Alternatively, if mental health and poverty are strong complements, interventions that address both poverty and mental health jointly may be most effective in improving both outcomes (Elliott, 2016, Lund, 2012).

The widespread incidence of common mental health disorders calls for psychotherapy models that may be more scalable and flexible to address multiple mental health-related problems. Given the bidirectional link between poverty and mental health and the limited mental health treatment in many low income settings, combining antipoverty interventions with psychotherapy delivered by non-specialists may be promising (Ridley et al. 2020). Using a randomized control trial design (RCT), this study will compare the impact of a psychotherapy program with and without a one-time lump sum cash transfer on measures of both economic and psychological well-being outcomes.

Objective

General Objective

The study's objective is to estimate the impact of group Problem Management plus (GPM+), with and without a lump-sum cash transfer, on mental health, daily activities, and economic outcomes among Productive Safety Net Program (PSNP) clients in the regions of Amhara and Oromia.

Research questions

The specific research questions to be answered are:

1) What is the impact of gPM+ on PSNP clients' mental health and daily activities immediately after gPM+ sessions end?;
2) What is the impact of gPM+ on PSNP clients' mental health, daily activities, and economic well-being 1-year after gPM+ sessions end?
3) What is the impact of a one-time lump-sum cash transfer on mental health, daily activities, and economic well-being 1-year after gPM+ sessions end?;
4) What is the added impact of combining gPM+ with a one-time lump sum cash transfer one year after gPM+ sessions end?

Background

Study setting

Since its inception in 2005, PSNP has been a cornerstone of the Ethiopian government's strategy for poverty alleviation, disaster risk management, and rural development. The PSNP provides food or cash transfers targeted to poor households through payments for seasonal labor on public works or direct support to families whose primary income earners are elderly or disabled. With more than 8 million beneficiaries, the PSNP is one of Sub-Saharan Africa's most prominent social protection programs. The PNSP has played an essential role in improving the lives of poor Ethiopian households by reducing household food insecurity, increasing asset holdings, and improving agricultural productivity (Berhane et al. 2014; Hoddinott et al. 2017).

The Strengthen PSNP5 Institutions and Resilience (SPIR II) Resilience Food Security Activity (RFSA) in Ethiopia is a five-year project (2021-2026). This is a graduation model social protection program that supports the implementation of the fifth phase of the Productive Safety Net Program (PSNP5) in the Amhara and Oromia regions and provides complementary livelihood, nutrition,

gender, and climate resilience activities to strengthen the program and expand its impacts. World Vision leads the implementation of the SPIR RFSA which will serve nearly 500,000 PNSP clients in Ethiopia's most vulnerable woredas in Amhara and Oromia regions. As part of its activities, World Vision and implementing partners will implement the gPM+ and cash transfer interventions.

This study will be conducted in 70 kebeles from 13 Woredas across the Oromia (5 Woredas) and Amhara (8 Woredas) regions of previous SPIR I study sites.[1] Many adverse events have affected these kebeles, including political conflict, COVID-19, fall armyworm, and desert locust infestations. The proportion of fall army-worm and desert locust-affected households is higher in Oromia than in Amhara, with 35 (Amhara) and 65 percent (Oromia) of households reporting crop loss due to either desert locust or fall army-worms (Alderman et al. 2021). Even before the recent conflict, which has affected large parts of the country, a phone survey conducted during COVID-19 (June 2020) among SPIR I households found high levels of self-reported stress, with about 35% of respondents in Amhara and 85% in Oromia reporting being extremely stressed (Alderman et al. 2020). Depressive symptoms were also high among men and women in SPIR I study areas, with approximately 24-28 percent of males and females revealing mild-to-severe levels of depressive symptoms (PHQ-9>=5) and 4.6–6.2 percent moderate-to-severe levels (PHQ-9>=10) of depressive symptoms (Alderman et al. 2021). The mild-to-severe rates are slightly higher than the 22% prevalence rate of common mental illness reported in a systematic review of the general Ethiopian population (Kassa and Abajobir 2018).

While mild to severe depression is common in these study sites, treatment is limited. Most psychiatric services are concentrated in Addis Ababa, although the National Mental Health Strategy developed in 2012 aims to decentralize and integrate mental health services into primary health care (Hanlon et al. 2019; Negash et al. 2020).

Interventions

Problem Management Plus (PM+) is an intervention developed by WHO in 2013 to address common mental health problems such as depression, stress, and anxiety. It involves problem management (PM) plus (+) selected behavioral strategies to address both psychological issues (e.g., stress, fear, feelings of helplessness) and practical problems (e.g., livelihood problems,

[1] Amhara: Sekota; Gazgibla; Dahina; Bugna; Lasta; Gazo; Wadla; Meket. Oromia: Girawa; Kurfachele; Gemechis; Darolebu; Chiro

conflict in the family) (World Health Organization 2016). It was conceived initially as individual counselling composed of 5 sessions. It has been adapted to a group intervention (gPM+), with studies in Nepal and Pakistan demonstrating its effectiveness and feasibility (Rahman et al. 2019; Jordans et al. 2021). It is an intervention designed to be scalable and implemented by non-specialists following brief training. World Vision will adapt the gPM+ materials to the local context in Amhara and Oromia study regions.

In villages randomized to the gPM+ treatment, same-sex therapy groups of 3 to 8 individuals will be formed and facilitated by Community Health Facilitators (CHF) for women and Men's Group Facilitators (MGF) for men[2]. Most CHF and MGF have experience facilitating prior mental health interventions, including interpersonal psychotherapy group (IPT-G) in SPIR I, and will receive a 9-day training related to gPM+. The gPM+ intervention consists of five, 90-minute group sessions which will be delivered weekly over five weeks by the trained CHF and MGF.

Eligible households in villages randomized to the Cash treatment will also receive a one-time lump sum transfer worth the equivalent value in Birr of $300 USD. While the transfer is unconditional, it will be presented as a 'livelihoods transfer' to support income-generating activities that improve livelihoods. The transfer will be at the household level, so the total amount is the same regardless of whether one or two individuals per household participate in the study. The transfer will be timed to be distributed one to two months after the last gPM+ session.

Study design

The impact of gPM+ will be assessed through a two-stage cluster randomized control trial (cRCT) design. In the first stage, 70 kebeles will be randomized to receive cash or no cash. Randomization of the cash treatment is at the kebele level in order to reduce the risk of spillovers, contamination, and resentment. Randomization of kebeles will be stratified by woreda. In the second stage, within each kebele, up to 6 villages will then be randomized to receive either gPM+ or not receive it[3], leading to the following four intervention arms across 252 villages:

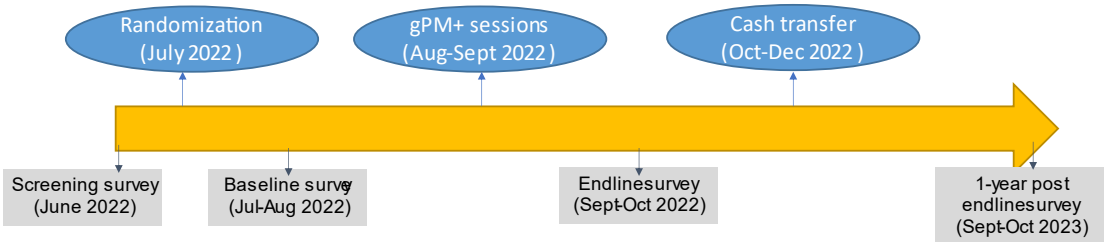
- Arm-1: control
- Arm-2: gPM+ only

[2] Group size will depend on how many individuals are screened in per village
[3] Although most kebeles have between 3-5 villages, the exact number of villages per kebele varies.

- Arm-3: lump-sum cash transfer only
- Arm-4: lump-sum cash transfer and gPM+.

Study participants in all intervention arms will receive information on locally available mental health services and be PSNP public works clients. Arm 2 will additionally provide study participants with the gPM+ therapy, Arm 3 will additionally provide a one-time lump sum cash transfer, and Arm 4 will provide both the gPM+ and cash transfer.

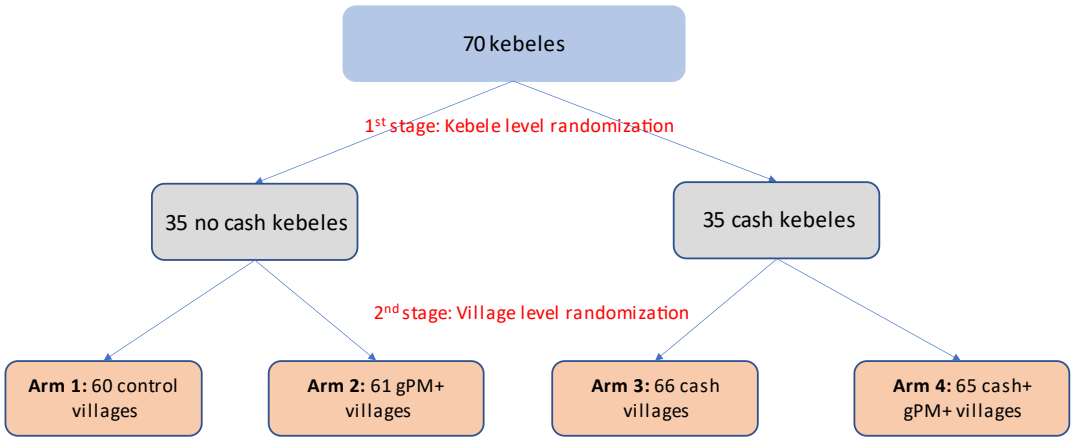
The evaluation will include a baseline survey conducted before implementing the gPM+ or cash transfer intervention (July-August 2022, see Figure 1). The endline survey will be conducted on the same individuals right after the gPM+ intervention but before the cash is rolled out (September-October 2022). A one-year post-intervention survey will be conducted approximately one year after the end-line, approximately one year after the gPM+ sessions and 9 months after the cash transfer (September-October 2023).



Randomization

Randomization was conducted in STATA by the research team using the randtreat command. First, 70 kebeles were stratified by woreda, and randomized to either the Cash or No-Cash treatment. Second, 252 villages were stratified by kebele and randomized to either receive or not receive the gPM+ intervention. At each stage, misfits were randomly assigned within each strata, leading to slightly unequal number of villages per treatment arm (See figure 1).

Figure 1: Study design



Study population

The population for this study are individuals residing in Amhara and Oromia and registered and assisted by PSNP public works program. Moreover, to be eligible, individuals must have signs and symptoms of depression or dysfunction, be between 18 and 59 years old, and be the main decision-maker or spouse of the main decisionmaker. The last criterion is added because we are interested in the relationship between mental health and economic decision-making, which is more relevant for the main household decision-makers. We allow both the primary decision-maker and spouse to be eligible because depression across spouses is often correlated, and therapy may be more beneficial when both are treated. Individuals will be excluded from the study if they present evidence of severe depression or suicide. A quick screening exercise will be conducted in the selected villages to identify eligible participants. The screening exercise will be based on the PSNP client list and include a brief survey that screens individuals for inclusion in the study (see section on "Screening survey" for more detail).

Sample and power calculations

Power calculations

Power calculations for this study focused on a primary mental health outcome, PHQ-9, and economic outcome, the total value of productive assets. PHQ-9 is a widely used depression diagnostic instrument with scores that range from 0-27. For both outcomes, we drew on data from the endline SPIR I impact evaluation conducted in the same regions of Oromia and Amhara. Given

that SPIR I data did not have data on daily activities, we did not conduct power calculations on this outcome.

We power the study for estimating impacts 1-year after the gPM+ sessions ended across the 4 intervention groups as this requires the largest sample. Power calculations considered the study's design, adjusting for clustering and autocorrelation. Autocorrelations were estimated using the SPIR endline and midline data, while intra-cluster correlations (ICC) were assessed at the kebele level. Power calculations were conducted in STATA using clustersampsi command. The desired statistical power was set at 80%, and the desired significance level was set to 0.05. Given that the number of kebeles, villages, and gPM+ group size were pre-determined, we calculate the minimal detectable effect at 1 year post gPM+ for a given number of clusters and cluster size.

We set the number of villages to 252. The number of individuals per village will depend on the number of individuals screened into the study. The max gPM+ group size is 8 women and 8 men per village and the minimum is 3 women and 3 men. On average we expect about 12 individuals per village (6 men and 6 women) at baseline with a coefficient of variation of 0.25. Assuming 8% attrition, rounded to the nearest whole number, the number of individuals per village at 1 year post endline is 11, for a total of 2,772 individuals. For household level economic outcomes, the number of households is estimated differently as two individuals per household (main decision-maker and spouse) are eligible to participate in the study. We expect about 18 percent of the sample to be husband/wife pairs from the same household. This will reduce the number of observations for household-level economic outcomes to 2,218 households.

These parameters give us a minimal detectable effect (MDE) of 0.22 standard deviations on the PHQ-9 score and 0.25 standard deviations on the value of productive assets (Table 1), both which are considered small effect sizes. The MDE for the PHQ-9 is a lower bound effect size comparable to those found in Nepal and Pakistan (0.2-0.38 mean standardized difference for PHQ-9) 3-months after the gPM+ intervention (Jordans et al. 2021; Rahman et al. 2019).

Table 1: Minimal detectable effect for given sample at 1-year post-program data collection

	MDE (SD)	ICC	Corr	K villages, per arm	N per cluster	N per arm	Total sample at 1 year post program
PHQ-9 score	0.22	0.13	0.29	63	11	693	2,772
Value of productive	0.25	0.16	0.23	63	9	567	2,268

assets							

*2nd stage comparison of villages across the four different treatment arms

Sample procedures

The study will be conducted in the regions of Oromia and Amhara. 70 kebeles across 13 Woredas will be purposively sampled according to prior SPIR activities. In particular, sampled kebeles will be those that 1) previously received enhanced nutrition interventions under the SPIR I either through Community Health facilitators or Men's Group Facilitators and thus have trained staff, 2) are not immediately adjacent to areas experiencing armed conflict, and 3) are accessible. Within each of the 70 selected kebeles, up to six villages with at least 10 PSNP households will be eligible to participate and chosen randomly.[4] Most kebeles have between 3-5 villages with at least 10 PSNP households. In these cases, all villages within the kebele will be included in the study. In the rare cases where there are more than 6 villages per kebele, the largest 6 villages will be chosen to be included in the study.[5]

In each village, up to 50 PSNP households will be screened for eligibility into the study.[6] In villages with less than 50 PSNP households, all households will be screened. For villages with more than 50 PSNP households, households will be randomly ordered and the first 50 will be selected for screening. Through the screening survey, up to eight men and eight women per village who meet the inclusion criteria (the three criteria are: 1) are between 18-59 years old, 2) shows signs of depression or dysfunction as described below, 3) are the main decisionmaker or spouse) will be included in the study.

Data Collection

Laterite will lead the fieldwork for data collection in close cooperation with the IFPRI evaluation team. Laterite is a data, research, and technical advisory firm specializing in data collection and development research projects in East Africa. The data collection will consist of a short screening survey in study villages (June 2022), followed by a baseline survey a few weeks later (July-August

[4] Villages with less than 10 PSNP households were dropped as they would likely not have enough eligible participants to form a gPM+ group.

[5] We only keep a maximum of 6 villages, due to logistical constraints in implementing the gPM+ intervention. We keep the largest 6 villages, because we expect only a fraction of PSNP households to exhibit signs of depressive and be eligible for the study.

[6] We expect about 30% of households screened to be eligible to participate in the study. Given that we were aiming for groups of 8 men and 8 women to participate in gPM+, we expected that 50 households for the screening would be sufficient to reach this maximum group size.

2022) for individuals screened into the study. Following the intervention, two endline surveys will be conducted. The first will occur right after the intervention is completed (Sept-Oct 2022), and the second will be a 1-year post-intervention (Sept-Oct 2023).

Screening Survey

The screening survey will be conducted on PSNP clients in each study village to assess whether individuals are eligible to be included in the study. Per household, up to two people aged 18-59 years will be screened (the primary decision-maker and spouse). The screening survey will assess depression and functionality using the Patient Health Questionnaire (PHQ-9) and the WHO Disability Assessment Schedule 2·0 (WHODAS). We plan to use a cutoff of 5 for the PHQ-9 and 17 for the WHODAS. The PHQ-9 has been validated in Ethiopia, and a cutoff of 5 has been identified as optimal for identifying possible depressive disorders in primary care settings in Ethiopia (Hanlon et al. 2015; Keynejad et al. 2020; Bitew et al. 2021).

Although not all villages in the study will be assigned to gPM+, the screening assessment will occur in all villages to ensure that the sample selection criteria are similar across villages. All individuals that are screened into the study will receive information on locally available mental health services and be informed that they may be contacted again in a few days to conduct the longer baseline interview. In contrast, those with severe forms of depression (a PHQ-9 score of 20 or above) or those having suicidal attempts or ideations, assessed by the safety protocol, will be referred to health facilities with psychosocial support services under supervision by a focal person and will not be included in the study.

Baseline and end-line surveys

The baseline and endline questionnaires will be questionnaires of approximately 1:30 hours. The questionnaires will be conducted using Computer Assisted Personalized Interviews (CAPI) on tablets with SurveyCTO software. The questionnaires will be translated into Amharic and Afan Oromo, and interviews will be conducted in these two languages. The surveys will be composed of two parts. The first part will comprise household-level modules such as household roster, housing, assets, consumption, food security, investments, and occurrence of shocking events. The second part will be composed of individual-level modules administered to the individuals screened for the study. These modules include instruments for measuring depression, stress, anxiety, coping, self-efficacy, time and risk preference, savings, intimate partner violence, time use, and childcare.

At baseline, we will collect basic demographic information. At endline, we will ask about participants' experience with the gPM+ therapy and at 1 year post endline, their experience with the lump-sum cash transfer.

Estimation

Primary and secondary outcomes

The study's primary outcomes are those related to mental health, economic standing, and daily activities and childcare (Table 2). The mental health-related outcomes include depressive symptoms as measured by the PHQ-9, stress as measured by the Perceived Stress Scale (PSS-10), post-traumatic stress as measured by the PCL-C, anxiety as measured by the General Anxiety Disorder 7 (GAD-7-), and functional impairment as measured by the WHO Disability Assessment Schedule 2.0 (WHODAS 2.0). The economic outcomes include the total value of productive assets; total value of per capita consumption expenditures, food insecurity, and savings. Lastly, we are interested in how improved mental health leads to improved time-use and care activities. Thus our third set of outcomes include time-use with respect to non-economic activities, income-generating activities, other activities, and childcare and discipline. Given that some outcomes may take more time to change and the cash transfer was rolled out after the endline, some outcomes (mainly the economic outcomes) will be analyzed only at 1 year-post endline.

For all primary outcomes we will create raw scores and standardized scores. Results on raw scores will be reported in the appendices. We will also create summary indices at the domain level following Kling et al. 2007.

Table 2: Primary outcomes

Domain	Indicators	Endline	1-year post endline
Mental health	*PHQ-9* – a measure of depressive symptoms – total score from 9 questions converted to standardized unit using control mean and SD	X	X
	Perceived stress scale (PSS-10) – total score from 10 questions converted to standardized unit using control mean and SD	X	X
	Post-traumatic stress, PCL-C – total score from 6 questions converted to standardized unit using control mean and SD	X	X

	General Anxiety Disorder 7 (GAD-7-) – total score from 7 questions converted to standardized unit using control mean and SD	X	X
	WHO Disability Assessment Schedule 2.0 (WHODAS 2.0) – total score from 12 questions converted to standardized unit using control mean and SD	X	X
Economic	*The total value of productive assets*- total value transformed using inverse-hyperbolic sine transformation and then standardized using control mean and SD		X
	Total value of monthly per capita expenditures – total value of food and non-food consumption transformed using inverse-hyperbolic sine transformation and then standardized using control mean and SD		X
	Food insecurity experience scale- total score converted to standardized unit using control mean and SD		X
	Savings- binary indicator that equals one if individual deposited any money in the last 12 months in any type of savings account, converted to standardized unit using control mean and SD		X
Activity and childcare	*Non-economic activities*: total hours spent in non-economic activities in the last 24 hours, converted to standardized unit using control mean and SD	X	X
	Income generating activities: total hours spent in income generating activities in the last week, converted to standardized unit using control mean and SD	X	X
	Other activities: summation of number of other activities participated, converted to standardized unit using control mean and SD	X	X
	Childcare – total number of activities, converted to standardized unit using control mean and SD	X	X
	Child discipline: total score, converted to standardized unit using control mean and SD	X	X
	Child neglect : total score, converted to standardized unit using control mean and SD	X	X

In addition, to the primary outcomes of interest, we are interested in potential pathways through which the gPM+ and cash could improve mental health and economic outcomes. These secondary outcomes include improvements in an individual's coping skills (as measured by an abbreviated Brief Cope, Tension reduction, alcohol and khat consumption, and social support), psychosocial skills (as measured by general self-efficacy); intrahousehold relationships (as measured by the WHO Violence Against Women Instrument for IPV), and economic preferences such as time and risk (as measured by the Global Preference survey) and subsequent investments. These outcomes are listed in Table 3.

Table 3: Secondary outcomes

Domain	Measure
Coping mechanisms	Alcohol and Khat consumption
	Tension reduction
	Brief Cope (shortened to 6 items) – instrument to measure coping with stressful life events
	Multi-dimensional Scale of Perceived Social Support (MSPSS)
Psychosocial skills	General self-efficacy
Preferences	Time preference (Global preference survey)
	Risk preference (Global preference survey)
	Value of Investments in last 12 months
Intrahousehold relationships	Intimate Partner Violence (WHO violence against women instrument)

Empirical approach

Impacts will be measured immediately following the intervention (endline) and 1-year post-program. We will estimate intent-to-treat (ITT) effects following the assigned treatment using the ANCOVA model when baseline outcome variables are available. We will run probit models for binary outcomes and ordinary least squares models for continuous variables.

R1: What is the immediate impact of gPM+ on mental health and daily activity?

To answer the first research question, we will rely on the baseline and endline data. Given that the cash transfer has not yet been distributed, we will combine arms 1 and 3 (no gPM+) and arms 2 and 4 (gPM+) to estimate the following equation:

$$Y_{ihvk}^{1} = \beta_0 + \beta_1 gPM_{vk} + \beta_2 X_{ihvk}^{0} + \beta_3 Y_{ihvk}^{0} + \mu_k + \varepsilon_{ihvk} \quad \text{(EQ 1)}$$

Where Y_{ihvk}^{1} is the outcome of interest at endline for individual *i* from household *h* from village *v* in kebele *k;* and Y_{ihvk}^{0} is the outcome of interest at baseline. gPM_{vk} is an indicator that equals one if village, *v*, was randomized to the gPM+ treatment. X_{ihvk}^{0} is a vector of baseline control variables that will include age and sex of the respondent for individual level outcomes. As a robustness check other possible baseline control variables will be included such as enumerator sex and the number and age of children (for childcare outcomes). The specification also includes kebele fixed effects, μ_k. Standard errors will be clustered at the village level. We will assess heterogeneity of impacts by sex of the study participant, region, and PHQ-9 score as measured in the screening survey.

R2-R4: What is the impact of gPM+ on PSNP clients' mental health, daily activity, and economic well-being 1-year after gPM+ sessions end? What is the impact of a one-time lump-sum cash transfer on mental health, daily activity, and economic well-being 1-year after gPM+ sessions end?; What is the added impact of combining gPM+ with a one-time lump sum cash transfer one year after gPM+ sessions end?

To answer research questions 2-4, we will rely on the baseline and 1-year post-endline data The main specification we will estimate is the following:

$$Y_{ihvkw}^{2} = \beta_0 + \beta_1 Cash_{kw} + \beta_2 gPM_{vkw} + \beta_3 Cash_{kw} * gPM_{vkw} + \beta_4 X_{ihvkw}^{0} + \beta_5 Y_{ihvkw}^{0} + \gamma_w + \varepsilon_{ihvkw} \quad \text{(EQ 2)}$$

Where Y_{ihvkw}^{2} is the outcome of interest at 1-year post-endline for individual *i* from household *h* from village *v* in kebele *k* and woreda *w;* and Y_{ihvkw}^{0} is the outcome of interest at baseline. $Cash_{kw}$ is an indicator that equals one if kebele, *k*, was randomized to the one-time lump-sum cash treatment; gPM_{vkw} is an indicator that equals one if village, *v*, was randomized to the gPM+ treatment. X_{ihvkw}^{0} is a vector of baseline control variables that will include age and sex of the respondent for individual level outcomes. The specification also includes woreda fixed effects , γ_w. As a robustness check we will also run a specification with kebele fixed effects and other possible baseline control variables will be included such as enumerator sex and the number and age of children (for childcare outcomes). Standard errors will be clustered at the village level. We will

assess heterogeneity of impacts by sex of the study participant, region, and PHQ-9 score measured in the screening survey.

In this model, β_1 measure the impact of the cash treatment compared to the control group 1-year after the gPM+ sessions ended; β_2 the impact of the gPM+ treatment compared to the control group 1-year after the gPM+ sessions ended; and $\beta_3$represents the added impact of combining the cash and gPM+ treatment.

References

Abbafati, Cristiana, Kaja M. Abbas, Mohsen Abbasi-Kangevari, Foad Abd-Allah, Ahmed Abdelalim, Mohammad Abdollahi, Ibrahim Abdollahpour, et al. 2020. "Global Burden of 369 Diseases and Injuries in 204 Countries and Territories, 1990–2019: A Systematic Analysis for the Global Burden of Disease Study 2019." *The Lancet* 396 (10258): 1204–22. https://doi.org/10.1016/S0140-6736(20)30925-9.

Alderman, Harold, Daniel Gilligan, Melissa Hidrobo, Jessica Leight, Alemayehu Seyoum Tafesse, and Helene Tambet. 2020. "Short-Term Evidence on Wellbeing of Rural Ethiopian Households during the COVID-19 Pandemic." *Spir Learning Brief*, no. December. https://www.ifpri.org/publication/short-term-evidence-wellbeing-rural-ethiopian-households-during-covid-19-pandemic.

Alderman, Harold, Daniel O Gilligan, Melissa Hidrobo, Jessica Leight, Gayathri Ramani, Alemayehu Seyoum Taffesse, and Heleene Tambet. 2021. "Impact Evaluation of the Strengthen PSNP4 Institutions and Resilience (SPIR) Development Food Security Activity (DFSA): Endline Report." Washington, D.C.

Berhane, Guush, Daniel O. Gilligan, John Hoddinott, Neha Kumar, and Alemayehu Seyoum Taffesse. 2014. "Can Social Protection Work in Africa? The Impact of Ethiopia's Productive Safety Net Programme." *Economic Development and Cultural Change* 63 (1): 1–26.

Bitew, Tesera, Roxanne Keynejad, Bronwyn Myers, Simone Honikman, Girmay Medhin, Fikirte Girma, Louise Howard, Katherine Sorsdahl, and Charlotte Hanlon. 2021. "Brief Problem-Solving Therapy for Antenatal Depressive Symptoms in Primary Care in Rural Ethiopia: Protocol for a Randomised, Controlled Feasibility Trial." *Pilot and Feasibility Studies* 7 (1). https://doi.org/10.1186/s40814-021-00773-8.

Charlson, Fiona, Mark van Ommeren, Abraham Flaxman, Joseph Cornett, Harvey Whiteford, and Shekhar Saxena. 2019. "New WHO Prevalence Estimates of Mental Disorders in Conflict Settings: A Systematic Review and Meta-Analysis." *The Lancet* 394 (10194): 240–48. https://doi.org/10.1016/S0140-6736(19)30934-1.

GBD 2019 Diseases and Injuries Collaborators. 2020. "Global Burden of 369 Diseases and Injuries in 204 Countries and Territories, 1990–2019: A Systematic Analysis for the Global Burden of Disease Study 2019." *The Lancet* 396 (10258): 1204–22. https://doi.org/10.1016/S0140-

6736(20)30925-9.

Hanlon, Charlotte, Atalay Alem, Crick Lund, Damen Hailemariam, Esubalew Assefa, Tedla W. Giorgis, and Dan Chisholm. 2019. “Moving towards Universal Health Coverage for Mental Disorders in Ethiopia.” *International Journal of Mental Health Systems* 13 (1): 1–16. https://doi.org/10.1186/s13033-019-0268-9.

Hanlon, Charlotte, Girmay Medhin, Medhin Selamu, Erica Breuer, Benyam Worku, Maji Hailemariam, Crick Lund, Martin Prince, and Abebaw Fekadu. 2015. “Validity of Brief Screening Questionnaires to Detect Depression in Primary Care in Ethiopia.” *Journal of Affective Disorders* 186: 32–39. https://doi.org/10.1016/j.jad.2015.07.015.

Jordans, Mark J.D., Brandon A. Kohrt, Manaswi Sangraula, Elizabeth L. Turner, Xueqi Wang, Pragya Shrestha, Renasha Ghimire, et al. 2021. “Effectiveness of Group Problem Management Plus, a Brief Psychological Intervention for Adults Affected by Humanitarian Disasters in Nepal: A Cluster Randomized Controlled Trial.” *PLoS Medicine* 18 (6): 1–22. https://doi.org/10.1371/journal.pmed.1003621.

Kassa, Getachew Mullu, and Amanuel Alemu Abajobir. 2018. “Prevalence of Common Mental Illnesses in Ethiopia: A Systematic Review and Meta-Analysis.” *Neurology Psychiatry and Brain Research* 30 (June): 74–85. https://doi.org/10.1016/j.npbr.2018.06.001.

Keynejad, Roxanne C., Tesera Bitew, Tesera Bitew, Katherine Sorsdahl, Bronwyn Myers, Bronwyn Myers, Simone Honikman, et al. 2020. “Problem Solving Therapy (PST) Tailored for Intimate Partner Violence (IPV) versus Standard PST and Enhanced Usual Care for Pregnant Women Experiencing IPV in Rural Ethiopia: Protocol for a Randomised Controlled Feasibility Trial.” *Trials* 21 (1): 1–16. https://doi.org/10.1186/s13063-020-04331-0.

Negash, Assegid, Matloob Ahmed Khan, Girmay Medhin, Dawit Wondimagegn, and Mesfin Araya. 2020. “Mental Distress, Perceived Need, and Barriers to Receive Professional Mental Health Care among University Students in Ethiopia.” *BMC Psychiatry* 20 (1): 1–15. https://doi.org/10.1186/s12888-020-02602-3.

Rahman, Atif, Muhammad Naseem Khan, Syed Usman Hamdani, Anna Chiumento, Parveen Akhtar, Huma Nazir, Anum Nisar, et al. 2019. “Effectiveness of a Brief Group Psychological Intervention for Women in a Post-Conflict Setting in Pakistan: A Single-Blind, Cluster, Randomised Controlled Trial.” *The Lancet* 393 (10182): 1733–44. https://doi.org/10.1016/S0140-6736(18)32343-2.

Ridley, Matthew, Gautam Rao, Frank Schilbach, and Vikram Patel. 2020. “Poverty, Depression, and Anxiety: Causal Evidence and Mechanisms.” *Science* 370 (6522). https://doi.org/10.1126/science.aay0214.

World Health Organization. 2016. “Problem Management Plus (PM+): Individual Psychological Help for Adults Impaired by Distress in Communities Exposed to Adversity.” Geneva. https://apps.who.int/iris/rest/bitstreams/915902/retrieve.