Providing Therapy and Cash Transfers to Improve Older Adult Mental Health in India

Researchers:

Abhijit Banerjee

Esther Duflo

Erin Grela

Madeline McKelway

Frank Schilbach

Miriam Sequeira

Garima Sharma

Girija Vaidyanathan

Sector(s): Finance, Health

Sample: 1,120 low-income adults aged 55 or older who live alone

Target group: Adults Seniors (65+)

Outcome of interest: Food security Mental health

Intervention type: Cognitive behavioral therapy Unconditional cash transfers

AEA RCT registration number: AEARCTR-0007582

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Partner organization(s): Government of Tamil Nadu, National Institutes of Health - National Institute on Aging (NIA)

Older adults are increasingly living alone, making them more susceptible to mental health decline. Researchers conducted an evaluation to test the impact of cognitive behavioral therapy (CBT) and cash transfers on functional impairment (or difficulty performing daily tasks), depression, and food security among adults 55 and older living alone in Tamil Nadu, India. At a three-week follow-up, cash transfers improved participants' reported ability to perform daily tasks and led to a small decline in depression, while neither CBT nor the combination of the two impacted these outcomes. None of the interventions had an impact on outcomes at a three-month follow-up.

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Aging adults around the world are increasingly living on their own. Older adults who live alone are highly susceptible to loneliness, which is often accompanied by depression and cognitive impairment. Cognitive Behavioral Therapy (CBT), a form of talk therapy to treat mental health conditions,[1] is an effective treatment for depression among older adults. CBT may also help older adults overcome functional impairments and more easily complete daily tasks by equipping them with skills to address everyday problems, sustain relationships, and improve their emotional wellbeing.

Despite its effectiveness, many low- and middle-income countries lack licensed therapists to administer CBT due to limited funding and training opportunities. In these contexts, in-person therapy delivered by non-professionals has been shown to lower symptoms of depression. While talk therapy delivered remotely by non-professionals has been found to be effective at treating depression among older adults in high-income countries, no such evidence is available for older adults in low-income countries.

Moreover, cash transfers can improve people's mental health, food security, and overall wellbeing. Combining cash transfers and CBT could be a promising way to address mental health challenges among aging adults,[2] though evidence on combined programs with older adults is limited. Can phone-based CBT and cash transfers improve functional impairment, depression, and food security for adults 55 and older living alone?

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The evaluation took place in Tamil Nadu, a coastal state in southeastern India that is home to over 72 million people.[3] Based on the most recent 2011 census, over ten million residents are 55 or older (14.7 percent of the state's population), and nearly 51 percent are women.[4] The Government of Tamil Nadu provides various social security benefits to low-income older adults, distributing monthly payments of INR 1,000 (US$12 in 2021) to eligible seniors at the time of this evaluation.[5]

Researchers selected participants for this study from a 2018 household survey conducted across five districts in the state. To be eligible for this evaluation, adults had to be aged 55 or older, accessible by phone, and living alone. Approximately 83 percent of participants were women, and 77.1 percent were widowed. A majority of participants (75 percent) lived in rural communities. Researchers found that about a third of participants were moderately or severely depressed and over 20 percent were mildly depressed. Adults in the study had low incomes, with an average monthly spending of INR 1,699 (US$20 in 2021). Nearly a quarter of participants reported skipping or cutting meals in 2018.

The evaluation took place throughout 2021 during surges of the Covid-19 pandemic, disrupting elements of the program's implementation and potentially limiting how study findings might translate to other contexts.



A woman talks on her cell phone in India.

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Researchers partnered with the Government of Tamil Nadu to conduct a randomized evaluation to test the impact of CBT and cash transfers on functional impairment, depression, and food security. They randomly assigned 1,120 adults aged 55 or older living alone in Tamil Nadu to one of four groups:

1. **Phone-based CBT group (377 older adults):** Participants agreed to join weekly 30- to 45-minute phone calls with CBT-trained lay counselors over six consecutive weeks. They could also join an additional booster session two months after the weekly program ended. Non-professional counselors, trained over two weeks in a specialized curriculum, helped participants brainstorm solutions to daily challenges and identify and plan activities that would boost their mood. The CBT curriculum was developed by a psychologist at Sangath, a mental health nonprofit.[6]
2. **Cash transfer group (184 older adults):** Participants could receive a one-time unconditional cash transfer of INR 1,000 (US$12 in 2021), delivered in-person. On average, comparison group participants spent INR 1,747 (US$21 in 2021) before the study began, making the cash transfer equivalent to 57 percent of their monthly spending.[7]
3. **Phone-based CBT and cash transfer group (183 older adults):** Participants could join the same phone-based CBT program described above, and received the same cash transfer of (INR 1,000, US$12 in 2021) one week after the CBT sessions ended. Cash was delivered regardless of participants' participation in the CBT sessions.
4. **Comparison group (376 older adults):** Participants in the comparison group were not offered the phone-based CBT sessions or the cash transfer.

Participants in each group began receiving phone-based CBT, a one-time cash transfer, both, or neither in three waves starting in January, March, or August 2021. Due to a rise in Covid-19 cases across India in spring 2021, cash could not be delivered in the second wave, and hence there is only a comparison group and CBT group in that wave.

Researchers collected information on participants' functional impairment, feelings of depression, and food security about three weeks and three months after the end of the CBT in their wave. Researchers measured participants' ability to perform daily tasks by asking them to rate their difficulty performing twelve activities of daily living in the past month. Results were scored from 0 (no functional impairment) to 48 (extreme functional impairment) points. Researchers measured depression by asking participants fifteen yes or no questions on their current mental well-being. Results were scored from 0 (least depressed) to 15 (most depressed) points. Researchers measured food security by asking participants if they had to skip a meal or reduce meal size in the past week.

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One-time cash transfers reduced functional impairment for older adults living alone in Tamil Nadu three weeks later, and led to a small decline in feelings of depression. Neither cash transfers, CBT, nor the combination of the two had an impact on outcomes at three months.

Functional impairment: At three weeks, participants who received a cash transfer experienced a decreased effect on their functional impairment of 2.9 points relative to the comparison group. A lower score indicates that participants were better able to perform daily tasks. The CBT and combined groups did not impact people's functional impairment, and the effect of cash had faded by three months.

Among older women, cash transfers, phone-based CBT, and their combination reduced functional impairment in the short term. At three weeks, women who received cash, CBT, or both experienced decreased functional impairment effects of 4.1, 3.5, and -3.2 points, respectively, relative to the comparison group. Among older men, phone-based CBT, cash transfers, and their combination worsened functional impairment at three months. The researchers highlight the importance of further study to explore why CBT and cash transfers appeared to affect men negatively and in differing ways to women.

Depression: People who received cash transfers experienced a small improvement in depression symptoms three weeks after the program, with a 1 point greater decrease on their depression score relative to the comparison group. The other two interventions showed no impact at three weeks, and none of the treatments led to improvements at the three-month follow-up. This contrasts with other studies which find that CBT reduced depression among older adults in India and in high-income countries.[8]

The effect of cash on depression at three weeks is driven by women, who enjoyed a 1.4 point greater decrease on their depression score. Since the average woman in the study was mildly depressed at the start, this reduction implies that on average women in the cash transfer group fell below the threshold for depression diagnosis.

Food security: None of the interventions affected food security three weeks or three months after they ended.

Overall, the interventions studied here had limited impacts on functional impairment, depression, and food security. Cash transfers appear to be more cost-effective than phone-based CBT as they generated short-run improvements in functional impairment and depression, and were less expensive (cash cost US$12 per person compared to US$19 for CBT). The impacts on depression align with other findings that cash transfers can improve mental health. The results also suggest that phone-based CBT may not be an effective strategy for reducing functional impairment, depression, or food insecurity among older adults in Tamil Nadu. More research is needed to understand the differing effects on men and women.

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7. The cash transfer amount is equal to two monthly emergency payments distributed by the Government of Tamil Nadu to low-income families in 2020 in response to the Covid-19 pandemic.

8. Studies include: Huang AX, Delucchi K, Dunn LB, et al. 2015. “A systematic review and meta-analysis of psychotherapy for late-life depression.” Am J Geriatr Psychiatry, 23:261-273. doi:10.1016/j.jagp.2014.04.003; Dias A, Azariah F, Anderson SJ, et al. 2019. “Effect of a lay counselor intervention on prevention of major depression in older adults living in low- and middle-income countries: A randomized clinical trial.” JAMA Psychiatry 76:13-20. doi:10.1001/jamapsychiatry.2018.3048; Patel V, Weobong B, Weiss HA, et al. 2017. “The Healthy Activity Program (HAP), a lay counsellor-delivered brief psychological treatment for severe depression, in primary care in India: a randomised controlled trial.” Lancet 389:176-185. doi:10.1016/S0140-6736(16)31589-6.