Psychological Well-being and Educational Efficiency:

Evidence from Civil Servant Intervention in Pakistan

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This study collaborates with a major network of charter schools to examine the impact of mental health support for teachers on their well-being and that of their students. By conducting a randomized experiment, we assess the effectiveness of various interventions to reduce teacher stress and its transmission to students, ultimately exploring implications for academic performance. Interventions include mindful meditation, individual cognitive behavioral therapy (CBT) sessions, and psychopharmacological assistance. In response to preliminary evidence suggesting the significant role of mental health stigma, particularly in developing countries, our study incorporated an a priori factorial design. This design enabled examining the effects of diminishing mental health stigma, especially regarding the utilization of psychopharmacological treatments. While overall we find that meditation and CBT effectively reduce stress, with psychopharmacological aid showing less impact, the factorial design cross-randomizing teachers to raise social acceptance of seeking psychopharmacological help results in a significant increase in its utilization and effectiveness of psychopharmacological aid within the stigma-reduced group. Our research highlights the transmissibility of stress from teachers to students and its detrimental effect on learning. Importantly, it also identifies social stigma as a major barrier to accessing mental health support. Interventions that promote social acceptance for seeking psychopharmacological help not only reduce stigma but also enhance the uptake and positive outcomes of such aid, ultimately mitigating stress in the short and medium term.

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"Teaching is the greatest act of optimism" (Colleen Wilcox, 1997)

I. Introduction

Education is pivotal to the development of human capital, serving as a foundational pillar in economic growth theory. Yet, a perplexing disconnect exists in the education sector. Despite widespread recognition of high-stress levels among public school teachers and their detrimental effects on student learning, the uptake of effective mental health interventions remains strikingly low. This discrepancy raises a crucial economic puzzle: Why does a key workforce in the human capital pipeline – teachers – remain under-supported in mental health aspects, and how does this oversight impact the broader educational and economic landscape?

The American Psychological Association identifies public school teaching as one of the most stressful occupations in the United States, significantly contributing to educators leaving the profession (McMahon et al., 2022). This stress, often more influential than inadequate pay, is particularly acute in resource-constrained countries in the Global South (Sahito and Vaisanen, 2020), raising critical questions about effective methods to reduce teacher stress, its transmission to students, and the potential impact on student performance in the classroom. What are the most successful methods for reducing stress among public school teachers? Does reducing stress among teachers transmit student stress? Does it enhance student performance in the classroom?

Our study utilizes a novel combination of detailed data on teachers' blood cortisol levels, pre- and post-intervention, student and teacher PSS test scores, and student achievement in both verbal and quantitative subjects. We investigate the benefits of physiological, meditation and pharma-physiological interventions for teachers and determine how much these interventions may impact both teacher and student outcomes. Additionally, we aim to examine the potential role of stigma related to mental health treatments concerning teachers and their students' academic performance.

Our experiment yielded three key results. The first was that a one-month program of Cognitive Behavioral Therapy (CBT) and Mindfulness Medication (MM) effectively reduced

stress in teachers. Six months post-intervention, cortisol levels among teachers who received either CBT or MM were at least 0.2 standard deviations lower compared to the control group. The reduction in stress among teachers was also reflected in their students, resulting in students of treated teachers having approximately 0.05 standard deviations lower stress compared to students whose teachers were in the control group.

To put these measurements in perspective, the effect sizes are comparable to recent interventions aiming to reduce stress. For instance, Shreekumar and Vautrey (2022) find that randomly assigning a popular mindfulness app can reduce stress by 0.4 standard deviations and Taylor and Holston (2016) document that a few sessions of music therapy can reduce cortisol concentrations by 0.2 standard deviations, Barker et al. (2022) show that cognitive behavioral therapy improves mental well-being by 0.29 standard deviations,

Our second main result is mental health assistance to teachers results in a measurable improvement in student academic performance. Students with teachers who were in mindfulness meditation and cognitive behavioral therapy have students with higher test scores in Mathematics, English, and Urdu language subjects. The impact of mental health support on mathematics is at least half as much as those in the language subjects. Cognitive behavioral therapy and mindfulness meditation increase student math scores by about 0.05 standard deviations, whereas the impact on Urdu and English test scores is about 0.15 standard deviations.

Our final result is that stigma and credit constraints against psychopharmacological assistance are particularly likely to prevent the use of prescription medicines and seeking psychiatric assistance. We leverage a factorial design where we cross-randomize bracelets with a social signal that states the action to go to a psychiatrist. This has large positive impacts on teachers' mental health but *only* when prescription medications are subsidized. When prescription medicines are completely subsidized, psychopharmacological assistance offered with the social signal decreases stress among teachers by about 0.2 standard deviations and student stress by about 0.1 standard deviations. This also translates into improved academic performance. Students whose teachers were offered psychopharmacological assistance have students who have about 0.1 standard deviations higher test scores in verbal and quantitative

examinations. Overall, the results of this study suggest that the provision of mental health assistance to teachers results in a measurable improvement in student academic performance.

The first was that a one-month program of Cognitive Behavioral Therapy (CBT) and Mindfulness Medication (MM) effectively reduced stress in teachers.

This paper builds upon existing research at the intersection of social learning with image concerns and the barriers to the uptake of mental health services, particularly for vulnerable displaced populations. Prior work in this domain has primarily focused on the reputational concerns and decision-making of information seekers, as evidenced in studies by Breza and Chandrasekhar (2019), Chandrasekhar et al. (2018), and Banerjee et al. (2018). The paper contributes empirically to understanding how individuals respond to changes in image concerns, aligning closely with the behavioral model proposed in Bénabou and Tirole (2006). The study also adds to the literature on social image concerns, building on the work reviewed by Bursztyn and Jensen (2017) in field experiments identifying social image concerns, with influential examples in educational and health investments.

In contributing to the literature on the uptake of mental health services, this paper establishes connections with broader discussions on health behavior and information dissemination. Previous research in the mental health domain has delved into diverse aspects, including the prevalence of mental health issues (Banerjee et al., 2023), discrimination against individuals with mental illness (Ridley, 2022), the intersection of mental health with economic well-being (Ridley et al., 2020), and the impact of mental health treatment in low-resource settings, including those with forcibly displaced populations (Bhat et al., 2022; Harker Roa et al., 2023; Islam et al., 2021).

Examining stigma as a barrier to understanding and utilizing mental health services aligns closely with literature exploring the challenges of delivering negative news in health settings, as discussed by Oster et al. (2013), Kőszegi (2006), and Golman et al. (2017). This paper positions mental health services as an innovative technology and explores their dissemination through the lens of existing research on information delivery agents (Bandiera et al., 2023; Beaman et al., 2021; BenYishay and Mobarak, 2019; Maitra et al., 2020), aiming to reach those most in need (Alatas et al., 2016; Hussam, Rigol, and Roth, 2022; Goldberg et al., 2018). As part of a field

experiment with refugees, it adds to the growing corpus of randomized controlled trials in humanitarian contexts (Alan et al., 2021; Baseler et al., 2023; Hussam, Kelley, et al., 2022; Stillman et al., 2022). The study breaks new ground by demonstrating how image concerns can impede social learning and suggests that visible external incentives may help overcome this barrier. This finding challenges the conventional wisdom that advocates for private action to avoid social pressure, which is at odds with the concept of social learning (Bursztyn and Jensen, 2017). Further building on this, recent research by Raisaro (2023) and Buchmann et al. (2021) shows that financial incentives can curb negative behaviors, such as speeding among Ugandan taxi drivers and child marriage in Bangladesh, with their impact amplified when made more visible. Broadening the discussion to include social image concerns, this paper extends the literature reviewed by Bursztyn and Jensen in 2017, with field experiments pinpointing social image concerns in sectors like education and health (Bursztyn et al., 2019; Karing, 2018). The collective findings emphasize the role of financial incentives in shaping behavior and the complex role of social image in diverse settings.

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The second literature to which we contribute is one of state capacity. We bridge extensive research on the crucial role frontline civil servants, including teachers, play in developmental outcomes (AKM; Das on teacher value added) with burgeoning evidence on the psychology of poverty (Hausofer). The quality of governance varies significantly across the globe, and enhancing government performance is essential as it plays a pivotal role in development through the provision of public services, management of externalities, and establishing a foundation for economic growth. Stress among civil servants is a significant issue, with a variety of factors contributing to their stress levels (Whitehall II stuy, nih links). A study by the American Psychological Association identifies public school teaching as one of the most stressful occupations in the United States (McMahon et al., 2022).

In this paper we explore are there gains to meditation and pharma-physiological interventions for teachers? Do teachers gain? Do students gain? What is the role of stigma against mental health treatments among teachers and their students' academic performance?

Teaching, particularly in public schools, is considered one of the most psychologically taxing jobs in the world (cite XYZ, e.g., those counseling centers opened up in US for teachers, and other parts of the world etc). general population survey of teachers PSS score in Pakistan? then compare with teachers?

"According to a recent study, 64% of teachers reported high levels of job stress… across the Globe (Greenberg, Brown & Abenavoli, stress and teachers in

Greenberg, M. T., Brown, J. L., & Abenavoli, R. M. (2016).Teacher stress and health effects on teachers, students, and schools. Edna Bennett Pierce Prevention Research Center, Pennsylvania State University "A negative **correlation** was found between Job stress and school effectiveness. The Government and school authorities are recommended to try their best to overcome the stress causing problems in order to improve the school effectiveness." cite: https://pssr.org.pk/issues/v5/1/on-job-stress-and-school-effectiveness-in-pakistan-causes-and-consequences.pdf

pakistan:
https://pssr.org.pk/issues/v6/2/analysis-of-occupational-stress-of-primary-school-teachers.pdf

II. Background

Background.—Pakistan's education system is structured into three main levels: primary, secondary, and tertiary. Primary education is the foundational stage, typically spanning from grades one to five, and aims to provide basic literacy and numeracy skills. Secondary education follows, divided into two streams: science and arts/humanities. This phase, comprising grades six to ten, prepares students for higher education. Tertiary education encompasses universities and colleges, offering undergraduate and postgraduate programs. Primary education is compulsory and free in public schools, but enforcement of compulsory education is not strict. The literacy rate in Pakistan is approximately 60% (Pakistan Economic Survey, 2023) , with significant disparities between male and female literacy rates. Enrollment rates have been increasing slowly, with gross enrollment in primary education at around 68% (World Bank, 2018), but this figure drops significantly at the secondary level (PIDE, 2020). The education system is

examination-oriented, with board exams conducted at the end of primary[2], secondary and higher secondary levels. The board exams are standadized exams overseen been the

In Pakistan, only 78 percent of teachers are professionally trained at the primary school level against a global average of 89.1 percent. If we break down this percentage on gender, 89 percent male teachers have had some professional training, while only 68 percent female teachers go through a similar training. (PIDE, 2020). The scarcity of effective teaching has significant, enduring, and varied negative consequences for students. Exposure to a teacher with 1 standard deviation (SD) higher quality in Pakistan results in 0.15 SD higher test scores (Bau and Das, 2020). Teachers' attendance is 89% at best, and 20% of children cannot read a sentence in the local language or solve a two-digit subtraction problem by the end of the fifth grade (ASER, 2019).

The government has encouraged development of charter schools in Pakistan to improve student performance. Charter schools operate as publicly funded institutions without tuition fees. Distinct from traditional public schools, these institutions enjoy a heightened level of autonomy. Positioned outside the conventional public school framework, charter schools constitute a pivotal element within the broader school choice movement. Emphasizing autonomy, innovation, and accountability, this educational reform initiative, particularly within the charter school sphere, endeavors to elevate key aspects of educational practice. Advocates assert that the strategic incorporation of these fundamental pillars will yield innovative advancements in curriculum, instructional methodologies, and the learning paradigm, consequently fostering enhanced student outcomes (Chubb & Moe, 1990; Walberg & Bast, 2003).

We partnered with the Progressive Education Network (PEN), one of the world's largest networks of public schools, to conduct a field experiment across their 100 schools. PEN, a non-profit organization, aims to enhance education quality in Pakistan through a public-private "charter" approach, akin to charter schools in the United States and elsewhere (Angrist and Pischke, 2014). The experiment was conducted collaboratively with PEN across all their charter schools in Punjab and Sindh, Pakistan's two most populous provinces, where PEN employs about 1000 teachers and over 25,000 students are enrolled in the schools administered by PEN.

2 The exams for primary and secondary (5th grade and 8th grade) were not being conducted during covid and after 2020, the first exams are conducted in 2024.

Teaching itself is a highly stressful profession. Although, salaries and working conditions in PEN schools are better than other public schools, more teachers leave the profession due to high stress then lower salaries (CITE). Stress in teachers may lead to reduced job satisfaction, burnout, and poor performance. Chronic stress can impede day-to-day functioning and emotional balance, posing a risk factor for developing other psychiatric illnesses such as anxiety and depression (Seo et al., 2017; Kleftaras and Grammata, 1998; Papastylianou and Polychronopoulos, 2009). Teacher workload is one of the most common sources of stress (Keenan and Newton, 1985). There is a lack of systematic understanding regarding how stress is measured, its global prevalence, the factors contributing to stress, and what causes the associated negative outcomes among teachers. This is especially pertinent in Pakistan and generally in developing countries where teachers are typically dissatisfied with their jobs, leading to high turnover and increased absenteeism. The most important factor for job satisfaction in Pakistan is self-efficacy, followed by favorable working conditions (Naz et al., 2017).

III. Study Design and Interventions

A. *Study Design.*

In this paper, we run a Randomized Control Trial, and randomized teachers into different mental health programs to evaluate the effectiveness of different mental health interventions. In November 2021, we surveyed 950 teachers employed at PEN schools in Punjab and Sindh. We dropped teachers, if they were already taking any medication or were already diagnosed with some psychological illness or had previously have been diagnosed or taken any medication for such illnesses. We also dropped teachers who did not want to partake in the study. In the end we were left with 850 willing participants in the study with no history of psychological illness or treatment. Using a random number generator, we randomly assigned teachers to one of six treatment arms. The first treatment arm consisted of four weekly *Cognitive Behavioral Therapy* (CBT) sessions with a trained psychologist (142 teachers). The second treatment arm consisted of four weekly *mindfulness meditation* (MM) sessions (142 teachers). The third treatment arm consisted of four *Psychopharmacology Therapy (PPT)* sessions with a psychiatrist but without any financial subsidy in case a medication was prescribed by the doctor. The fourth treatment arm consisted of identical four *Psychopharmacology Therapy (PPT)* sessions but with a 50%

financial subsidy in form of a voucher for prescription medication prescribed by the psychiatrist. The fifth treatment arm consisted the identical *Psychopharmacology Therapy (PPT)* sessions but with a 100% financial subsidy for prescription medication. A final sixth treatment arm served as a *control group* and were delivered four weeks of lectures on macroeconomic facts of the Pakistani economy. The study design, including the flowchart of the interventions and the timeline, is presented in Table A1.

B. Interventions

During January and February 2022, PEN conducted a mandatory training program for all teachers, seizing the opportunity to concurrently implement our interventions we rolled them with the 850 eligible participants. We divided the participants into 5 equal intervention groups and a placebo group, each of approximately 142 teachers. The details of the each intervention is as follows.

Cognitive Behavioral Therapy.— We hired a psychologist with about 20 years of clinical mental experience, who led four 20 to 30-minute cognitive behavioral therapy (CBT) sessions every week with the CBT-assigned teachers. The sessions took place at PEN headquarters, where the teachers were present as part of their mandatory teaching training program. The therapy revolved around using cognitive behavioral therapy techniques. Cognitive Behavioral Therapy (CBT) is a form of psychotherapy that aims to change negative patterns of thinking and behavior by identifying and modifying maladaptive thoughts and attitudes. Our post-experiment discussion with the mental health professional suggested two key issues and techniques that were most frequently used. The teachers mostly expressed a feeling of being burned out and guilt of not doing enough for their students. For instance, frequently, phrases such as "I can't keep up" or "I'm not doing a good enough job" were common distress signals. Using the CBT technique, the psychologist and the teacher worked to reframe these thoughts in a more adaptive way, the psychologist typically suggested stress management strategies to help cope with the workload. Likewise, the second most frequent issue the teachers were struggling with were feelings of guilt and inadequacy about their ability to meet the needs of all of their students. The psychologist used the standard cognitive restructuring techniques to help the teacher identify and challenge negative thoughts such as "I'm not doing enough" or "I'm failing my students." by reframing

these thoughts in a more adaptive way, by identifying the teacher's strengths and accomplishments, and by setting realistic expectations given the huge capacity constraints the teachers were operating in. An illustration of a therapy session with the teacher can be found in Figure A1 of the Appendix.

Psychopharmacological Therapy.— We hired an experienced psychiatrist with 20 years of clinical experience to diagnose and prescribe medications in a 20 to 30-minute appointment. There was also a follow-up appointment four weeks following the first appointment to reassess the diagnosis. About 20% of the teachers were diagnosed to receive medication, while 80% received no prescription medication. The psychopharmacological therapy treatments were randomly assigned to teachers with zero subsidies for medication, with co-paying i.e., a 50% subsidy and full 100% subsidization of prescription medication. The subsidization scheme was blinded to the psychiatrist and the recipient to mitigate experimenter demand effects. Upon the completion of interventions for all teachers, the subsidy winners were subsequently informed about the available vouchers. In order to redeem the voucher, participants were required to obtain an invoice from any pharmacy for reimbursement, they were reimbursed either at a rate of 50 or 100 percent based on thier voucher. In cases where a subsidy recipient lacked sufficient funds to purchase the prescribed medication, they were directed to acquire the required medications from a partner pharmacy, presenting a copy of the subsidy voucher. Subsidy payments were then directly made to the partner pharmacy on behalf of all teachers who opted for this alternative. A post-experiment discussion with the doctor revealed that out of the teachers who received prescriptions, approximately 10% were diagnosed with severe depression and prescribed either Escitalopram or Sertraline (SSRIs) based on their specific cases. The remaining teachers were provided miscellaneous diagnoses i.e. short-term anti-anxiety agents such as Alprazolam, with a few teachers were also diagnosed with bipolar disorder and given idiosyncratic treatments, such as Risperidone and Quinarian for manic bipolar, and escitalopram for depressed bipolar. We collect data on whether the medicine was prescribed and whether it was taken up. For an illustration of this treatment, see Figure A2 in Appendix A.

Mindfulness Meditation.— We also gained the expertise of an experienced meditation practitioner from a local wellness clinic that implemented four group meditation sessions. Specifically, the instructor implemented four 30-minute weekly mindfulness meditation sessions.

The specific mindfulness meditation technique is a contemplative practice that involves cultivating moment-to-moment awareness, characterized by a non-judgmental and receptive attitude toward one's experiences and environment. It helps redirect focus to the present moment. The meditation technique breaks negative thought patterns by focusing on the now. By redirecting attention to the current moment, individuals are prompted to disengage from the tumultuous past narratives or the speculative uncertainties of the future. This intentional focus on the now becomes a transformative force, fostering a deep-seated sense of connection with the present reality. The impact of this mindfulness meditation intervention on teachers' stress levels was evaluated. For an illustration of the meditation treatment, see Figure A3 in Appendix A.

Placebo.— Our control group consisted of a placebo treatment that involved teachers being assigned to four 30-minute weekly lectures on macroeconomic facts on the Pakistani economy. The lectures covered basic macroeconomic concepts such as GDP, GNP, net output, macroeconomic identity, inflation, and unemployment, followed by some facts on Pakistan's macroeconomy. The participants were also provided with some data and statistics to allow them to visualize recent trends in these macroeconomic outcomes in Pakistan. For an illustration of the placebo treatment, see slides of lecture 1 in Figure AX of Appendix A.

Research Ethics Approvals.— The research ethics approvals for this study were obtained through a thorough process of review and approval by two independent Institutional Review Boards (IRBs). The first ethical approval was received from the New Economic School with IRB number 00071/99 and the second from the Lahore School of Economics with IRB Number RERC-062021-03. The Lahore School of Economics IRB conducted several random on-site visits to ensure that all ethical protocols were being adhered to, including obtaining informed consent from both the teachers and PEN administration in accordance with international standards. In addition to obtaining IRB approvals, the study also received separate administrative approvals from the Progressive Education Network administration, the government of Pakistan, and teacher representatives.

IV. Data and Outcome Variables

A. *The Data*

Our study spanned a duration of one year, from November 2021 to October 2022. The recruitment of teachers for the program commenced in early November 2021. Initially, we administered a brief enrollment survey to 900 PEN teachers who were going to attend a mandatory annual training at the PEN headquarters in Lahore in the Feburary of 2021 and in the same month the enrolled teachers particpiated in a baseline survey. .

In this short survey, we inquired whether they had previously been diagnosed with any psychological illness or had taken any psychotropic medications. Teachers who were already on medication, diagnosed with a psychological illness, or had a history of such diagnosis or medication were excluded from the study. Additionally, teachers who declined to participate were also excluded. Consequently, we had 850 willing participants in the study, all without a history of psychological illness or treatment.

Our dataset includes 850 teachers and a population of 25,000 students across 100 schools managed by PEN in Punjab and Sindh, Pakistan. The majority of teachers in public schools are female, responsible for instructing all classes and subjects from Kindergarten to Grade 6. One notable change occurs when PEN adopts a public school is that teachers are now assigned to a specific class for all subjects. This adjustment enables the PEN administration to monitor students and teachers performance at a more granular level.

Following our pre-analysis plan, that we registered before collecting follow-up data, to assess student outcomes, we leveraged this arrangement to track student scores after the intervention. In case of teacher absenteeism, to prevent any potential contamination where treated and non-treated teachers might teach the same students, we collaborated with the PEN administration to establish protocols to address this. In cases of planned holidays, we committed to fund a temporary replacement for the teacher which PEN would hire. In the event of unexpected absenteeism, a teacher who is not participating in the study would substitute for the absent teacher. To track teacher absenteeism, our team would get daily realtime updates of teacher attendence and their holiday schedule, which were verified by random visits by our RAs.

In Pakistan, most public schools typically adhere to a two-term annual system. One term usually commences in April or August, extending until September or February. Following the conclusion of the school term in February, PEN teachers undergo an annual performance evaluation, feedback, and training program. We strategically aligned our study to implement interventions during this training program as all the teachers would be present at the same place.

To monitor student performance, we utilized the February 2022 scores as the baseline, representing pre-intervention levels, and the September 2022 scores as the endline for assessing post-intervention outcomes. The students in our study constitute the population under the the 850 participating teachers. Classes in Pakistan remain mixed-gender until Grade 6. In our sample we have a total of 18,000 boys and 7,000 girls aged 5 to 12 with an average class size is 30 students per teacher.

In January 2022, we conducted the baseline survey with the assistance of the PEN administration. One crucial variable required for the baseline was the blood plasma cortisol concentration, necessitating a trained medical professional for plasma sample collection. To address this, we partnered with one of the largest medical laboratories in Pakistan, possessing the necessary team and equipment capable of managing samples from 850 teachers simultaneously.

A team of 300 medical professionals, three for each of the 100 PEN schools, on average, depending on the size of the schools, conducted the plasma sample collection concurrently. Simultaneously, our team of Research Assistants (RAs) was positioned at random schools, unbeknownst to the labs, to cross-check the adherence to all protocols. During the baseline data collection we also collected students' stress scores, our RAs visited the schools and explained all the questions to the students, who responded based on their feelings. The responses, anonymized, were shared exclusively with the research team.

For the endline survey in September/October 2022, we replicated the process, collecting teachers' and students' stress scores, as well as blood cortisol plasma, following a similar methodology. We provided USD 2 mobile credit to teachers for completing the baseline survey and another USD 2 when they completed the endline survey. We also provided milk boxes to students who took part in our study and completed the baseline and endline surveys.

We maintained a consistently high take-up and follow-up rate, thanks to the active involvement of the PEN administration and the close engagement of the Head of Training at PEN with our study. To further enhance engagement, we facilitated teachers by reimbursing

travel costs, providing nearby hostel accommodations, and supplying meals throughout the intervention period. Additionally, given that our study was seamlessly integrated into PEN's regular training program, the training staff played a crucial role in ensuring a high take-up. The Training Director personally ensured the participation of every teacher, and our Research Assistants (RAs) were on hand to address queries or concerns and provide support. Contact numbers for the RAs were also shared with the teachers. Consequently, we achieved a high intervention take-up, and at the endline survey, we encountered minimal attrition, with only 4 teachers leaving the program (< 1%).

In contrast to our prior study (Mehmood, Naseer, and Chen, 2023), the current intervention involves an additional 300 teachers and 50 schools in Sindh province. .

B. Outcome Variables

Our pre-registration, following recent recommendations (Banerjee et al., 2020), is concise. We collect 3 categories of outcome variables (1) students stress levels, teachers stress levels and depression severity (2) students exam scores and achievements, and (3) changes in teacher behaviour. The details for outcome variables are listed below.

Outcomes on Stress.— As the pre-analysis plan (PAP) outlines, we assess stress outcomes through two distinct methods. Our primary focus involves measuring teacher stress via self-reported surveys and, more objectively, through hormonal secretion (specifically cortisol concentration). In the first method, we employ a 5-point Likert Scale and the Cohen Perceived Stress Scale (PSS) for both teachers and students, a widely-used stress assessment instrument summarizing feelings of stress over the last month. While these self-reported measures, particularly the Cohen PSS, offer valuable insights linked to various behavioral outcomes (Ramirez and Hernandez, 2007; Lee, 2012; Khalili et al., 2017), our second measure involves cortisol concentration in blood plasma to enhance stress measurement. Cortisol, a prominent biomarker of stress in neuroscience (Hellhammer et al., 2009), is released in response to various psychological or physiological strains. Cortisol concentration readings are collected in micrograms per deciliter (mcg/dl) using the Chemiluminescence Immunoassay (CLIA) technique. These outcome variables aid in assessing intervention effectiveness in reducing stress levels for both teachers and students. Additionally, we deviate slightly from the pre-analysis plan

to include another stress measure. We use existing survey questions and create a Patient Health Questionnaire (PHQ-9) score. The PHQ-9 is a validated measure of depression, scored from 0 to 27, where scores exceeding 9 indicate moderate to severe depression (Cameron et al., 2008).

Outcomes on Student Achievement.—We utilize standardized mathematics, English, and Urdu examinations to evaluate student academic achievement. Additionally, the school records General Knowledge scores. These assessments occur approximately 12 months post-treatment. We leverage these outcomes to determine the impact of teachers' mental health interventions on academic achievement and explore potential variations in effects between math and language subjects.

Outcomes on Teacher Behavior.— We also use behavioral data on teachers to trace the mechanisms driving the results. Specifically, we utilize administrative data collected on teachers. This includes measures of teacher effort, such as days absent and work hours. We also collect data on whether teachers indicated to take prescribed medication by the mental health expert. These measurements allow us to assess a potential channel connecting mental health interventions and increase in academic achievement of students.

V. Empirical Specification

A. The Empirical Specification

Following our Pre-Analysis Plan (PAP), the pre-registered experimental design allows us to measure the impact of each of the treatments by comparing outcomes across groups in a simple regression framework. For each outcome we run the following OLS regression:

$$Y_i = \alpha + \beta\, CBT_i + \gamma PPTNS_i + \delta\, PPTFS_i + \omega\, PPTCP_i + \delta\, MM + X_i\, \mu + \epsilon_i \quad (1)$$

where Y_i is the respective outcome on stress or test scores for individual *i*, CBT_i is the dummy variable equal to one if the teacher is assigned to the Cognitive Behavioral Therapy treatment, $PPTNS_i$ is the dummy variable equal to one if the teacher is assigned to the *Psychopharmacology Therapy (PPT)* treatment with no subsidy (NS), $PPTFS_i$ is the dummy variable equal to one if the teacher is assigned to the *Psychopharmacology Therapy (PPT)* treatment with full subsidy (FS), $PPTCP_i$ is the dummy variable equal to one if the teacher is assigned to the *Psychopharmacology Therapy (PPT)* treatment and is fifty percent co-paying for the prescriptions (CP). MM_i is a dummy for teachers that received Mindfulness Meditation (MM) treatment. X_i is a vector of all individual-level controls that include teachers teaching experience, average teaching hours, class size, marital status, years of education and teaching specialization certificate. Since we randomly assign teachers to our treatment groups, we cluster standard errors at the teacher level.

Nevertheless, in assessing the impact of both stigma and credit constraints on stress levels through seeking psychopharmacological assistance, we employ a factorial design. This design involves cross-randomizing bracelets with a social signal that explicitly conveys the action of seeking a psychiatrist's help. Our measurement involves the implementation of Ordinary Least Squares (OLS) regression.

$$Y_i = \alpha + \beta\, CBT \times Wristband_i + \gamma\, PPTNS \times Wristband_i$$

$$+ \delta\, PPTFS \times Wristband_i + \omega\, PPTCP \times Wristband_i$$

$$+ \delta\, MM \times Wristband_i + \rho\, Wristband_i + X_i\, \mu + \epsilon_i \quad (2)$$

where Yi is the respective outcome on stress or test scores for individual *i*, $CBT \times Wristband_i$ is the dummy variable equal to one if the teacher is assigned to the Cognitive Behavioral Therapy treatment and wore a wristband, $PPTNS \times Wristband_i$ is the dummy variable equal to one if the teacher is assigned to the Psychopharmacology Therapy (PPT) treatment with no subsidy (NS), $PPTFS \times Wristband_i$ is the dummy variable equal to one if the teacher is assigned to the Psychopharmacology Therapy (PPT) treatment with full subsidy (FS), $PPTCP \times Wristband_i$ is the dummy variable equal to one if the teacher is assigned to the Psychopharmacology Therapy (PPT) treatment and is fifty percent co-paying for the prescriptions (CP). $MM \times Wristband_i$ is a dummy for teachers that received Mindfulness Meditation (MM) treatment. X_i is a vector of all individual-level controls that include teachers teaching experience, average teaching hours, class size, marital status, years of education and teaching specialization certificate. Since we randomly assign teachers to our treatment groups, we cluster standard errors at the teacher level.

B. *Sample Balance and Sample Characteristics*

Balance - The assignment of teachers to their respective treatment arms, however, was blinded to the PEN administration. Nevertheless, a lack of balance could still pose a challenge in interpreting the results causally. Before presenting our main results, we demonstrate in Table 1 that our randomization was successful in creating balance among both treated and untreated teachers. Moreover, we also conduct a Joint Orthogonality Test for balance, as recommended by Bruhn and McKenzie (2009), which instead of looking at each characteristic individually, the Joint Orthogonality Test considers all characteristics together. This is done by running a regression of the treatment indicator on all baseline characteristics and their interactions. Reassuringly, the Joint Orthogonality Test revealed similar balance (see Table B1 in Appendix B).

Sample Characteristics - We compiled an exhaustive list of teacher characteristics provided by the PEN administration and concurrently collected pre-treatment stress indicators during the baseline survey. The consolidated set of characteristics comprises of Pre-Treatment Cortisol, Pre-Treatment Stress, Marital Status, Average Teaching Hours, Average Class Size, Teaching Experience, Years of Education, Educational Specialization, and Pre-Treatment Stigma. (Table 1)

Attrition - Our treatments were seamless integrated into PEN's regular training program which played a key role, and were not very different from usual. The Training Director personally oversaw the participation of every teacher into the program and ensured surveys were completed by the teachers, our Research Assistants (RAs) were aslo readily available to address queries, concerns, and provide support throughout the timeline of the study. We had also shared contact numbers for the RAs with the teachers and vice versa, resulting minimal attrition, with only 4 teachers leaving the program (< 1%).

VI. Main Results

To present our results, we align with the hypotheses outlined in our pre-analysis plan as documented in our pre-registry (Chen et al., 2022). Our primary focus lies in enhancing mental well-being to alleviate stress among both teachers and students while aiming to improve overall outcomes. The pre-analysis plan outlines the following hypotheses that test in this study.

H1: Treatments are balanced across treated and control groups.
H2: Treatments impact stress of teachers
H3: Treatments impact stress of students (all two prespecified measures)
H4: Treatments impact student test scores in mathematics
H5: Treatments impact student test scores in Urdu
H6: Treatments impacts teacher attendance
H7: Treatments impacts hours of teaching
H8[3]: Treatments with psychiatrist impact use of medications

3 H8: Treatments with psychiatrist impact use of medications has been discussed in section VIII. Results from Exploratory Analysis.

Hypothesis 1 (H1) - Test for Balance - Table showcases the assignment process of teachers to their respective treatment arms, which was conducted in a blinded manner to the PEN administration. Despite this blinding, achieving perfect balance remains a challenge, introducing potential complexities in the causal interpretation of results. Before presenting our main findings, we illustrate in Table 1 that our randomization process successfully achieved balance among both treated and untreated teachers. Additionally, a Joint Orthogonality Test for balance, recommended by Bruhn and McKenzie (2009), is performed. Unlike scrutinizing individual characteristics, this test considers all characteristics collectively by running a regression of the treatment indicator on all baseline characteristics and their interactions. Encouragingly, the Joint Orthogonality Test indicates similar balance, as detailed in Table B1 in Appendix B."

H2 - Impact on Teacher Stress - Table 2 illustrates the impact of interventions on teachers' stress levels. We gauge the coefficient estimate in equation (1) by assessing teachers' stress levels in three distinct manners. In Column (1), we display the teachers' self-reported stress on a standardized 1-5 Likert scale. In Column (2), the estimates incorporate all available controls. The estimate in the first row signifies a 0.246 standard deviation (SD) reduction ($p = 0.816$) in self-reported stress levels by teachers after undergoing Cognitive Behavioral Therapy (CBT) treatment. For Mindfulness Meditation (MM) treatment, a comparable 0.21 SD reduction ($p = 0.816$) in self-reported stress levels is observed among teachers, as indicated in row (8). Nevertheless, we observe small and statistically insignificant estimates for Psychiatrist treatment, both with and without subsidy.

Figure B1 also illustrates the effect of interventions of the three measures of stress we utilize. Figure B1 provides more details about the treatment effects on teachers' stress levels. In particular figure B1 depicts the cortisol density for CBT and MM intervention, and the placebo group. It is noteworthy that stress levels decrease throughout the support, both during and after the intervention. + Coeff plot Figure B2

?? However, when we do a subsample analysis for Psychiatrist, by dividing our sample on teachers who were prescribed medicine and teachers that were not prescribed medicine (high stress vs low stress teachers and we find an effect) ??

H3: Impact on Student Stress - Table 3 sheds light on the impact of interventions on students' stress levels. The coefficient estimates in equation (1) capture the effect of treatments on stress levels, measured in three distinct ways. In Column (1), we present students' self-reported stress on a standardized 1-5 Likert scale. Column (2) includes estimates adjusted for all available controls. The estimate in the first row reveals a noteworthy reduction of -0.0472 standard deviations (SD) ($p = 0.046$) in self-reported stress levels by students following Cognitive Behavioral Therapy (CBT) treatment. Similarly, for Mindfulness Meditation (MM) treatment, there is a significant reduction of -0.0594 SD ($p = 0.032$) in self-reported stress levels among students, as indicated in row (8). However, small and statistically insignificant estimates are observed for Psychiatrist treatment, both with and without subsidy." Figure new 3 also illustrates the effect of all the interventions of the three measures of stress we utilize. + Coeff plot of student stress Figure B3

H4 - H5 Students Test Scores - Table 4 reports significant impacts of teacher treatments on the academic performance of students. Teachers who underwent Cognitive Behavioral Therapy (CBT) witnessed substantial improvements in their students' Mathematics scores, reflecting an increase of 0.0564 standard deviations (SD) ($p = 0.827$), as depicted in column (1). Likewise, English scores saw an improvement of 0.193 SD ($p = 0.402$) in column (2), and Urdu scores increased by 0.150 SD ($p = 0.255$) in column (3). For teachers undergoing Mindfulness Meditation (MM), a positive influence was noted on student test scores, with Math scores increasing by 0.0634 SD ($p = 0.827$) in column (1), English scores improving by 0.46 SD ($p = 0.402$) in column (2), and Urdu scores increasing by 0.104 SD ($p = 0.255$), as reflected in column (1). However, minimal and statistically insignificant estimates were observed for the remaining treatments concerning student test scores in Math, English, Urdu, and the Gender Attitude survey. These outcomes underscore the diverse impacts of teacher interventions on academic results across subjects, with CBT and MM treatments showcasing positive effects on student test scores in specific subjects. We also do a gender breakdown in Table b2 and observe that the results remain qualitatively and quantitatively similar

H6 - H7: Treatments impact teacher attendance and teaching hours - Table 5 estimates the impact of interventions on teachers' attendance and teaching hours. In Column (1) and Column (2) we gauge the coefficient estimate in equation (1) by assessing teachers' attendance. It is the count of days missed by the teachers and standardized with mean zero and standard deviation one. Column (1) estimates the coefficient without controls and Column (2) incorporates all available controls. We do not find significantly different results from zero on change of teacher attendance for any of the treatments. Columns (3) and Column (4) show the estimates of teaching hours of teachers, standardized with mean zero and standard deviation one. Column (3) estimates the coefficient without controls and Column (4) incorporates all available controls. The estimate in the first row signifies a marginal 0.28 standard deviation (SD) increase ($p = 0.478$) in teaching hours of teachers after undergoing Cognitive Behavioral Therapy (CBT) treatment. For other treatments, we do not observe any significant difference from zero on teaching hours.

Columns (3) and (4) illustrate, with and without available controls, the usage of subsidy vouchers among teachers receiving subsidies. While no effect is observed for the group without subsidy, fully subsidized teachers show a substantial 0.30 SD increase (p-value < 0.001) in voucher usage for medication purchases. Likewise, the co-paying group demonstrates an increase of 0.27 SD (p-value < 0.001) in voucher usage.

VII. Mechanisms

This section investigates potential pathways through which the enhancement of teachers' mental well-being might affect students, impacting their stress levels and academic performance. In Table 2, we examine shifts in teachers' stress levels, employing three distinct metrics: self-reported stress on a standardized 1-5 Likert scale, the Cohen Perceived Stress Scale (PSS), and Cortisol concentration readings. Notably, we discern a noteworthy decrease in stress across

all measures following teachers' engagement in Cognitive Behavioral Therapy (CBT) and a comparable reduction when they undergo Mindfulness Meditation (MM) treatment.

Looking at Table 3, we observe a statistically significant decline in stress levels, estimated via self-reported 1-5 Likert scale and the Cohen Perceived Stress Scale (PSS), among students of CBT and MM treated teachers, thus signaling a transmission of improved mental health from teachers to students. Building upon this observation, we hypothesize that diminished stress levels among students might correlate with heightened engagement and active participation in learning activities. This reducing stress and improve motivation, curiosity, enhanced concentration, memory, and cognitive function, ultimately augmenting academic performance. Notably, Table 4 reveals that students belonging to CBT and MM treated groups exhibit significantly superior academic performance compared to their peers. For instance, in Column (1), we note an approximate 0.06 standard deviation increase in Math test scores for students taught by CBT and MM treated teachers. Similarly, in Column (2), a 0.19 standard deviation increase in English test scores for CBT teachers and a 0.15 standard deviation increase for MM treated teachers are observed. Moreover, there's a notable 0.149 standard deviation increase in Urdu scores for students instructed by CBT treated teachers and a 0.109 standard deviation increase for those under MM treated teachers. However, our examination of a gender attitude survey among students reveals no significant difference between students of treated and untreated teachers.

To understand the mechanism underlying the transmission from teachers to students and their consequent academic improvement, we scrutinize key disparities between treated and non-treated teachers, as well as among their students.

Initially, we hypothesized and subsequently ruled out that improved mental health among teachers would result in better physical health and fewer instances of illness, consequently reducing teacher absenteeism. Nevertheless, no significant difference in absenteeism is observed between treated and untreated teachers, as highlighted in Columns (1) and (2) of Table 5. Similarly, we hypothesize that less stressed teachers would invest more effort into teaching students and dedicate additional time to them. However, we find no discernible difference in the number of teaching hours or additional classes taken by teachers, as detailed in Table 5. We only note a marginal increase in teaching hours for teachers that underwent CBT

treatment as shown in Columns (3) and (4), for other treatments we observe no difference in teaching hours.

Finally, we posit that reduced stress levels among teachers foster a more positive and supportive classroom environment, enabling them to cultivate a nurturing and engaging learning atmosphere for their students, thereby yielding better academic outcomes and positive relationships. This hypothesis gains support from the evidence, as treated teachers were less inclined to administer corporal punishments to their students compared to the control group, as evidenced in Columns (5) and (6) of Table 5. This indicates a potential correlation between teachers' improved mental well-being and a reduction in disciplinary measures such as corporal punishment, suggesting a more conducive learning environment.

Older version

VIII. Results from Exploratory Analysis

Bands + transmission+Mechanism - med usage

Does Psychopharmacology Therapy (PPT) treatment has no effect?

Table 2 presents statistically insignificant estimates regarding the impact of Psychopharmacology (PPT) treatment across various teacher groups, including those who received full subsidy for medication purchases, co-paying teachers, and those without any subsidy. Despite strong evidence from medical literature regarding the efficacy of Psychopharmacology interventions in improving stress levels, our findings in this study reveal statistically insignificant differences in teachers' stress levels compared to the control group.

Upon closer examination, it becomes apparent that Table 2 measures the effect of *"prescribing psychopharmacology medications"* rather than the actual *"Psychopharmacology medications usage."*. We anticipated and hence, pre-registered to test for the role of stigma in medication adoption in our study. To test this we hypothesize that the social stigma associated with taking Psychopharmacology medication, especially in developing countries (Saxena et al., 2007; Gaiha et al., 2020), might deter teachers from purchasing and taking these medications. Additionally, credit constraints could be another contributing factor.

To explore these hypotheses, following Karing, A. (2018), employed a cross-randomization approach, assigning teachers to wear wristbands with different signals: one indicating 'I go to psychiatrist' and another with no text (refer to Figure A4 in the Appendix for illustration). This intervention aimed to foster social acceptance of seeking psychopharmacological assistance. Figure B3 presents the results, revealing a notable impact on teachers who wore the signaling wristband. Specifically, we observe a reduction of in self-reported 1-5 Likert scale, the Cohen Perceived Stress Scale (PSS), and blood plasma cortisol concentration levels of the treated teachers. This effect is evident only among fully subsidized and co-paying teachers, while no effect is observed among self-paying teachers.

Similarly, we now look at medication usage of teachers when a medication is prescribed to them. We note in Table B3 the change in medication usage of teachers who wore the signaling wristband and were assigned Psychopharmacology Therapy (PPT) treatment without subsidy. The coefficient estimate is derived using equation (2). Column (1), reveals a significant positive effect. This effect remains substantial when all available controls are incorporated, as indicated in Column (2), with a similar increase of 0.5 standard deviations (SD) (p-value < 0.01) observed in medication usage. Same result holds for medication vouchers used for fully subsidized teachers and co-paying teachers both exhibiting increases in medication usage by 0.48 to 0.63 SD (p-value < 0.01).

However, we do not observe increase in voucher usage for teachers wearing a signaling wristband, but when not offered a subsidy.

To understand why there is indistinguable effect for no subsidy teachers even with social signiling wristband. We hypothesis that teachers might be credit constrained and might not be

able to buy the medication. We note that teachers at PEN are underpaid, with an average monthly pay of approximately PKR 15,000 (50 USD). Credit constraints might prevent self-paying teachers from purchasing prescribed medications. We hypothesize that credit constraints are the key reason explaining the lack of difference in control and treatment among teachers. To test this hypothesis, we compare the salaries of teachers who were not given a subsidy. We observe that the highest-paid teachers, in the top pay quartile of the self-paying teachers group, do benefit positively from psychopharmacology intervention. Specifically, we observe a reduction of 0.4 standard deviations (SD) (p = 0.xxx) in self-reported stress scores on the Likert scale in Column (4) of Table B4. This effect is evident only among self-paying teachers, aligning with our hypothesis. Similar patterns are observed for PSS stress scores, with Column (4) indicating a reduction of 0.48 SD (p = xxx), and for cortisol concentration levels, with Column (6) showing a reduction of 0.46 SD (p = 0.xxx), providing insight into the disparity between self-paying teachers and subsidized groups.

We also explore transmission of improved mental health from teacher stress to students, we observe a statistically significant decline in stress levels, estimated via self-reported 1-5 Likert scale and the Cohen Perceived Stress Scale (PSS), among students of teachers who wore the signaling wristband, thus signaling a transmission of improved mental health from teachers to students. This can be observed in figure B4. This effect is evident only among fully subsidized and co-paying teachers, while no effect is observed among self-paying teachers.

older version

Why+stigma is working 1,2,3 = pre low high stigma + meds

IX. Robustness Checks

In this section we present a battery of exercises that probe the robustness of our estimates. The exercises include running various placebo tests that should not be affected by the treatment.

Sindh vs Punjab Teachers. - This study included 850 teachers from Punjab and Sindh, the two most populous states in Pakistan, with approximately 500 teachers from Punjab and 350 from Sindh. It's important to note that 500 of these teachers, from Punjab, had previously participated in two distinct studies. One of these studies focused on vaccine reluctance during the COVID-19 pandemic, while the other investigated gender attitudes among female teachers in Pakistan (Mehmood, Naseer, and Chen 2022; Mehmood, Naseer, and Chen 2023). Given their prior involvement in experimental studies, there may be concerns about whether their responses to the treatments in this study differed from those of teachers who had never previously participated in any research study. Moreover, there may also be concerns about whether the results are driven by teachers from a specific state.

To address these potential confounding factors, we divided the teachers into two groups based on their state and conduct separate analyses for Punjab and Sindh teachers. Notably, our findings remained consistent when analyzing only Sindh teachers and only Punjab teachers, as illustrated in Table B5. We also show transmission to Sindh and Punjab students in Table B6. Furthermore, In Table B7 we conduct a balance test and compare differences in baseline characteristics between the Sindh and Punjab teachers. All these factors allow us to interpret these results with confidence, as it helps mitigate potential selectionbias and ensures the robustness of our results.

Multiple Hypothesis Testing. - Given that we are testing multiple hypotheses, we also examine whether our results are explained by false positives. Under the assumption that the treatments have no effect on any of their outcomes (i.e. all our null hypotheses are true), then the probability of at least one false rejection when using a critical value of 0.05 is about 60%. Consequently, we adjust for the fact that we are testing for multiple hypotheses by using sharpened False Discovery Rate (FDR) q-values. The sharpened q-values are reported in square brackets in Table B9 of Appendix B, which also shows, for comparison, standard p-values from our baseline regressions in parentheses. Similar results are obtained when we deploy List et al., (2019)'s familywise error rate correction (FWER); this extends the False Discovery Rate (FDR) method by using a bootstrapping approach to incorporate the point-dependence structure of different treatments while

adjusting for multiple hypotheses. The results, reported in Table B8, strongly suggest that false positives are unlikely to explain our results.

Experimenter Demand.- In considering the potential influence of experimenter demand on our results, three key aspects of our experiment provide compelling arguments against its role. Firstly, in addition to utilizing self-reported stress levels, we employed blood cortisol concentration as a measure of stress. This physiological marker, secreted involuntarily by the adrenal glands in response to stress (Hellhammer et al., 2009), offers an objective and unbiased assessment. Secondly, the administration of the treatment occurred during the teachers' annual training event, during which the researchers maintained no direct interaction with the participants. A dedicated team of field assistants was present solely to provide assistance and guidance, refraining from engaging with the teachers during their sessions. Finally, our research team had no direct interaction with the students at any point during the experiment. The only interaction occurred during the collection of baseline and endline surveys, conducted by our research assistants (RAs). Furthermore, students were unaware of their teachers' participation in the study, and our RAs were blinded to the assignment of control and treatment groups. Consequently, it is challenging to attribute any observed effects to experimenter demand. These considerations strongly suggest that the interventions had effects beyond those influenced by experimenter demand.

Spillovers:- *Also seee Kremer 2004* Our study randomly assigned the treatments to 850 teachers across 100 schools in Pakistan. The randomization at the teacher level provided advantages such as the ability to match an individual teacher to the class and to collect rich granular data such as plasma cortisol concentrations of individual teachers. However, because treated and control group teachers may interact within a school, we might have spillover effects with some of the control teachers. While spillover effects are a possibility, there are at least three arguments supporting the idea that they are unlikely to explain our results.

Firstly, conceptually, if there are spillovers within a school where some of our control teachers end up receiving treatment, then our estimates are likely to underestimate the true treatment effects.

Secondly, our experimental design enables us to partially test the extent of potential spillover effects. We exploit the variation in treated teachers across schools in our sample to assess its impact on our outcomes. Table B10 presents these results. We find that the treatment effect on stress remains essentially identical regardless of the proportion of treated teachers within a school. In other words, our Cognitive Behavioral Therapy (CBT) and Mindfulness Meditation (MM) treatments consistently influence reduce stress, regardless of the fraction of treated teachers.

Thirdly, we leverage the fact that our Psychopharmacology Therapy (PPT) had no impact on stress levels compared to the control group. Therefore, we investigate whether the fraction of treated teachers influences stress levels of the control teachers. Under the assumption that a higher fraction of treated teachers leads to a greater likelihood for interactions between treated teachers and control teachers, we find no impact of fraction of treated teachers among control teachers on stress levels (Table BX4 and Table BX5). Taken together, the evidence strongly suggests that spillover effects between treated and control teachers, even if they exist, are likely to be small in magnitude and underestimate the true treatment effects.

Randomization Inference:- Imbens and Rubin (2015) recommend that in small sample randomized trials, the econometrician should perform randomization inference by scrambling the data, reassigning treatments, and comparing the distribution of control estimates with the true estimate from the experiment. The resulting p-values for 1000 iterations of this process are reported in Table B11 of Appendix B. The treatment effects are still statistically significant at conventional levels, suggesting that an idiosyncratic draw is also unlikely to explain our results.

Randomization inference + External validity today in transmission rights

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Table 1: Balance over Teacher Characteristics

Panel A: *Teacher Characteristics*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Pre-Treat Cortisol	*Pre-Treat Stress*	*Married*	*Av. Teaching Hours*	*Av. Class Size*	*Teaching Experience*	*Years of Education*	*Educational Specialization*	*Pre-Treatment Stigma*
Cognitive Behavioral Therapy (CBT)	0.463	-0.0856	-0.0888	0.611*	-0.625	-0.0601	0.00724	0.0450	0.0680
	[0.535]	[0.139]	[0.0620]	[0.342]	[2.376]	[0.427]	[0.194]	[0.0498]	[0.137]
Psychiatrist 0% Subsidy (PNS)	-0.466	0.0243	-0.0211	0.138	0.435	-0.388	-0.214	0.0626	-0.0821
	[0.533]	[0.148]	[0.0636]	[0.270]	[2.281]	[0.378]	[0.196]	[0.0519]	[0.141]
Psychiatrist 100% Subsidy (PFS)	0.0209	-0.177	0.0514	0.456	1.631	0.189	0.0647	0.0263	0.0209
	[0.525]	[0.148]	[0.0616]	[0.279]	[2.379]	[0.422]	[0.189]	[0.0488]	[0.145]
Psychiatrist 50% Subsidy (PCP)	0.304	-0.255*	0.0698	0.194	1.154	-0.537	-0.0845	0.0113	0.0283
	[0.557]	[0.142]	[0.0633]	[0.229]	[2.302]	[0.386]	[0.188]	[0.0489]	[0.139]
Mindfulness Meditation (MM)	0.872	-0.00109	-0.0489	0.366	0.844	-0.207	0.0317	-0.0162	0.126
	[0.550]	[0.149]	[0.0630]	[0.325]	[2.356]	[0.398]	[0.192]	[0.0494]	[0.137]
School Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	846	846	846	846	846	846	846	846	846
R-squared	0.182	0.151	0.115	0.080	0.307	0.129	0.275	0.201	0.201
F Statistics (Joint Significance)	1.53	1.23	1.83	0.91	0.26	0.81	0.50	0.68	0.46
p-values (Joint Significance)	0.177	0.234	0.105	0.474	0.937	0.539	0.773	0.642	0.804
Mean of dependent var	11.347	2.26	0.455	30.198	30.740	4.468	12.32	0.222	2.273

Panel B: *Student's Characteristics*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Gender	*Avg Grade*	*Pre-Treatment Math Score*	*Pre-Treatment English Score*	*Pre-Treatment Urdu Score*	*Pre-Treatment GK Scor*	*Pre-Treatment Stress*	-	-
Cognitive Behavioral Therapy (CBT)	-0.0634	-0.0135	1.018	0.861	-0.716	0.186	-0.180	-	-
	[0.0478]	[0.0119]	[1.157]	[1.046]	[1.023]	[0.531]	[0.131]	-	-
Psychiatrist 0% Subsidy (PNS)	0.00992	-0.00779	0.200	0.865	0.0413	0.939*	0.0246	-	-
	[0.0489]	[0.0121]	[1.074]	[1.081]	[0.933]	[0.539]	[0.161]	-	-
Psychiatrist 100% Subsidy (PFS)	-0.0160	0.00126	-0.599	1.240	0.446	0.166	-0.177	-	-
	[0.0489]	[0.0112]	[1.058]	[1.004]	[0.882]	[0.511]	[0.146]	-	-
Psychiatrist 50% Subsidy (PCP)	0.00744	-0.00483	-0.0902	-0.195	0.387	0.579	-0.0934	-	-
	[0.0511]	[0.0130]	[1.117]	[1.141]	[0.998]	[0.527]	[0.139]	-	-
Mindfulness Meditation (MM)	0.0171	0.000564	-0.959	1.475	-0.519	0.758	-0.143	-	-
	[0.0478]	[0.0119]	[1.004]	[1.011]	[0.979]	[0.512]	[0.150]	-	-
School Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-

Observations	24,753	24,753	24,753	24,753	24,753	24,753	24,753	-	-
R-squared	0.017	0.100	0.305	0.301	0.243	0.005	0.118	-	-
F Statistics (Joint Significance)	0.750	0.500	0.840	0.770	0.490	1.010	0.720	-	-
p-values (Joint Significance)	0.588	0.774	0.520	0.569	0.785	0.411	0.606	-	-
Mean of dependent var	0.489	0.153	66.29	64.11	66.91	77.69	2.210	-	-

Note: Robust standard errors appear in brackets (clustered at the teacher level). The dependent variables in Panel A are teacher level individual characteristics and dependent variables in Panel B are student level individual characteristics. Teacher level individual characteristics include Teaching Experience and years of education are teachers' experience and years of education, respectively. Av. Teaching Hours is the average number of hours the teacher teaches every week, pre-treatment. Married is a dummy variable that switches on when the teacher is married and zero otherwise. Teacher level individual characteristics include Gender, Avg Grade, pre-treatment scores of students in Math , English, Urdu, General knowledge. Pre-treatment stress is measured on a 5-point Likert scale. Psychologist and Meditation are dummy variables that switch on for teachers who were assigned four one-hour weekly sessions of cognitive behavioral therapy and mindfulness meditation with respective experts (4 sessions). Psychiatrist 0%, 50% and 100% subsidies are teachers assigned two sessions (4 weeks apart) with a psychiatrist along with vouchers of zero, half and full subsidy for prescription medicines, respectively. The teacher level controls include years of teaching experience, educational qualification, professional qualification, average teaching hours, class size, and marital status. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 2: Impact on Teacher Stress - Standardized

	(1)	(2)	(3)	(4)	(5)	(6)
	Stress Likert		*Cohen PSS Stress*		*Cortisol Concentration*	
Cognitive Behavioral Therapy (CBT)	-0.195**	-0.171*	-0.185*	-0.180*	-0.206**	-0.223**
	[0.0921]	[0.0927]	[0.0994]	[0.0995]	[0.0975]	[0.0996]
Mindfulness Meditation (MM)	-0.155	-0.164*	-0.201**	-0.184**	-0.219**	-0.238**
	[0.0955]	[0.0960]	[0.0891]	[0.0895]	[0.0984]	[0.0995]
Controls	No	Yes	No	Yes	No	Yes
Observations	846	846	846	846	846	846
R-squared	0.098	0.117	0.098	0.116	0.108	0.118
p-values (CBT=MM)	0.816	0.975	0.896	0.973	0.921	0.906

Note: Robust standard errors appear in brackets (clustered at the teacher level). All dependent variables in this table are standardized to mean zero and standard deviation one. The dependent variable in Columns 1 and 2 is teachers' self-reported stress on a Likert Scale of 1-5. In Columns 3 and 4, the dependent variable is Cohen Perceived Stress Scale (PSS). The dependent variable in Columns 5 and 6 is cortisol concentration in plasma, measured in micrograms per deciliter, using the Chemiluminescence Immunoassay (CLIA) technique. Psychologist and Meditation are dummy variables that switch on for teachers who were assigned four one-hour weekly sessions of cognitive behavioral therapy and mindfulness meditation with respective experts (4 sessions) (4 sessions). Psychiatrist 0%, 50% and 100% subsidies are teachers assigned two sessions (4 weeks apart) with a psychiatrist along with vouchers of zero, half and full subsidy for prescription medicines, respectively. The teacher level controls include years of teaching experience, educational qualification, professional qualification, average teaching hours, class size, and marital status. *** p<0.01, ** p<0.05, * p<0.1.

Table 3: Impact of Teachers' Stress on Student Stress - Standardized

	(1)	(2)	(3)	(4)
	Stress Likert		*Cohen PSS Stress*	
Cognitive Behavioral Therapy (CBT)	-0.0518***	-0.0515***	-0.0484**	-0.0468**
	[0.0186]	[0.0187]	[0.0215]	[0.0220]
Mindfulness Meditation (MM)	-0.100***	-0.100***	-0.104***	-0.101***
	[0.0192]	[0.0192]	[0.0196]	[0.0194]
Controls	No	Yes	No	Yes
Observations	24,752	24,752	24,752	24,752
R-squared	0.006	0.007	0.008	0.009
p-values (CBT=MM)	0.046**	0.048**	0.031**	0.032**

Note: Robust standard errors appear in brackets (clustered at the teacher level). All dependent variables in this table are standardized to mean zero and standard deviation one. The dependent variable in Columns 1 and 2 is student self-reported stress. In Columns 3 and 4, the dependent variable is Cohen Perceived Stress Scale (PSS). Psychiatrist 0%, 50% and 100% subsidies are teachers assigned two sessions (4 weeks apart) with a psychiatrist along with vouchers of zero, half and full subsidy for prescription medicines, respectively. The teachers are further cross-randomized into receiving a wristband with a social signal "I go to psychiatrist" and a wristband with no text (see Figure A4 in Appendix for an illustration). The teacher level controls include years of teaching experience, educational qualification, professional qualification, average teaching hours, class size, and marital status. *** p<0.01, ** p<0.05, * p<0.1.

Table 4: Impact of Teachers' Stress Intervention on Student Test Scores

	(1)	(2)	(3)	(4)
	Math Scores	*English Scores*	*Urdu Scores*	*Gender Attitude Survey*
Cognitive Behavioral Therapy (CBT)	0.0305	0.173***	0.132***	0.0284
	[0.0224]	[0.0382]	[0.0259]	[0.0236]
Mindfulness Meditation (MM)	0.0390	0.131***	0.0885***	0.0122
	[0.0249]	[0.0387]	[0.0292]	[0.0220]
Controls	Yes	Yes	Yes	Yes
Observations	24,753	24,753	24,753	24,753
R-squared	0.014	0.023	0.011	0.013
p-values (CBT=MM)	0.827	0.402	0.2550	0.661

Note: Robust standard errors appear in brackets (clustered at the teacher level). The dependent variables in Columns 1, 2, 3, and 4 are Mathematics, English, Urdu, and Gender Attitude Survey test scores respectively. All dependent variables in this table are standardized to mean zero and standard deviation one. Psychologist and Meditation are dummy variables that switch on for students or teachers who were assigned four one-hour weekly sessions of cognitive behavioral therapy and mindfulness meditation with respective experts (4 sessions) (4 sessions). Psychiatrist 0%, 50% and 100% subsidies are teachers assigned two sessions (4 weeks apart) with a psychiatrist along with vouchers of zero, half and full subsidy for prescription medicines, respectively. The teachers are further cross-randomized into receiving a wristband with a social signal "I go to psychiatrist" and a wristband with no text (see Figure A4 in Appendix for an illustration). The teacher level controls include years of teaching experience, educational qualification, professional qualification, average teaching hours, class size, and marital status. *** p<0.01, ** p<0.05, * p<0.1.

Table 5: Teacher Attendance and Teaching Hours

	(1)	(2)	(3)	(4)	(5)	(6)
	Teachers Attendance-Standardized		Teaching Hours - Standardized		Student reported Corporal Punishment - Standardized	
Cognitive Behavioral Therapy (CBT)	-0.0933	-0.0998	0.197	0.186	-0.509***	-0.510***
	[0.102]	[0.103]	[0.128]	[0.128]	[0.0165]	[0.0164]
Mindfulness Meditation (MM)	-0.0999	-0.107	0.0914	0.0755	-0.496***	-0.498***
	[0.0961]	[0.0971]	[0.119]	[0.122]	[0.0161]	[0.0163]
Controls	No	Yes	No	Yes	No	Yes
Observations	850	850	850	850	24,999	24,999
R-squared	0.134	0.139	0.067	0.076	0.060	0.061
p-values (CBT=MM)	0.963	0.961	0.478	0.456	0.488	0.553

Note: Robust standard errors appear in brackets (clustered at the teacher level). All dependent variables in this table are standardized to mean zero and standard deviation one. The dependent variable in Columns 1 and 2 is teachers' Attendance. In Columns 3 and 4, the dependent variable is Average number of hours a teacher taught. Psychologist and Meditation are dummy variables that switch on for teachers who were assigned four one-hour weekly sessions of cognitive behavioral therapy and mindfulness meditation with respective experts (4 sessions) (4 sessions). Psychiatrist 0%, 50% and 100% subsidies are teachers assigned two sessions (4 weeks apart) with a psychiatrist along with vouchers of zero, half and full subsidy for prescription medicines, respectively. The teacher level controls include years of teaching experience, educational qualification, professional qualification, average teaching hours, class size, and marital status. *** p<0.01, ** p<0.05, * p<0.1.

Add Student reported Corporal Punishment

Appendix A: Additional details and variables

Xyz

Appendix B: Additional Tables and Figures

Table B1: Joint Orthogonality Test for balance
Table B2: Impact on Teachers by all Treatments
Table B3: Impact of Medicines Prescribed on Teacher Stress - Standardized with interaction term wristband
Table B4: Impact of credit constraints on Stress levels
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Figure B5: Coeff plot Impact by Social Signaling on Teachers' Stress

Appendix B: Additional Tables and Figures

Table B1: Joint Orthogonality Test

	(1)	(2)	(3)	(4)	(5)
	Psychologist	Psychiatrist 0% Subsidy	Psychiatrist 100% Subsidy	Psychiatrist 50% Subsidy	Mindfulness Meditation
Pre-Treatment Cortisol	0.00243	-0.00628**	-0.00175	0.00108	0.00646*
	[0.00316]	[0.00314]	[0.00289]	[0.00335]	[0.00335]
Pre-Treatment Stress	-0.000408	0.0133	-0.0121	-0.0212*	0.0101
	[0.0109]	[0.0119]	[0.0119]	[0.0111]	[0.0119]
Married	0.00149	-0.00323	0.00528	-0.00540	-0.000679
	[0.00441]	[0.00372]	[0.00428]	[0.00382]	[0.00404]
Av. Teaching Hours	0.0102	-0.00501	0.00519	-0.00293	0.00231
	[0.00682]	[0.00552]	[0.00621]	[0.00425]	[0.00695]
Av. Class Size	-0.000620	-0.0000809	0.000559	0.000304	0.000142
	[0.000764]	[0.000726]	[0.000798]	[0.000737]	[0.000778]
Teaching Experience	-0.0550**	-0.0108	0.0403	0.0504*	-0.0287
	[0.0264]	[0.0273]	[0.0265]	[0.0273]	[0.0275]
Years of Education	0.00243	-0.0120	0.00637	-0.00318	0.00429
	[0.00883]	[0.00859]	[0.00832]	[0.00804]	[0.00874]
Educational Specialization	0.0254	0.0440	0.00519	-0.0109	-0.0409
	[0.0345]	[0.0363]	[0.0334]	[0.0325]	[0.0340]
School Fixed Effects	Yes	Yes	Yes	Yes	Yes
Observations	850	850	850	850	850
R-squared	0.123	0.117	0.116	0.127	0.106
F Statistics (Joint Significance)	1.09	1.37	0.80	1.32.	1.01
p-values (Joint Significance)	0.367	0.205	0.604	0.228	0.424
Mean of dependent var	0.167	0.166	0.167	0.166	0.167

Note: Robust standard errors appear in brackets (clustered at the teacher level). Dummy variables that turn on for our treatments are the dependent variables. Psychologist and Meditation are dummy variables that switch on for teachers who were assigned four one-hour weekly sessions of cognitive behavioral therapy and mindfulness meditation with respective experts (4 sessions). Psychiatrist 0%, 50% and 100% subsidies are teachers assigned two sessions (4 weeks apart) with a psychiatrist along with vouchers of zero, half and full subsidy for prescription medicines, respectively. The teacher level controls include years of teaching experience, educational qualification, professional qualification, average teaching hours, class size, and marital status. F-Statistic in each column correspond to joint significance test for all available baseline teacher characteristics and pretreatment variables *** p<0.01, ** p<0.05, * p<0.1.

Table B2: Impact on Teacher Stress - Standardized

	(1)	(2)	(3)	(4)	(5)	(6)
	Stress Likert		*Cohen PSS Stress*		*Cortisol Concentration*	
Cognitive Behavioral Therapy (CBT)	-0.246**	-0.219*	-0.250**	-0.258**	-0.245**	-0.262**
	[0.124]	[0.125]	[0.126]	[0.128]	[0.119]	[0.120]
PPTNS Psychiatrist with No Subsidy (PNS)	-0.196	-0.184	0.0195	-0.0100	0.0324	0.0311
	[0.133]	[0.132]	[0.125]	[0.125]	[0.132]	[0.133]
Psychiatrist with Full Subsidization (PFS)	0.0473	0.0584	-0.202	-0.203	-0.101	-0.0983
	[0.134]	[0.134]	[0.128]	[0.128]	[0.116]	[0.116]
Psychiatrist with Co-paying (PCP)	-0.0663	-0.0797	-0.0680	-0.0914	-0.0818	-0.0869
	[0.132]	[0.133]	[0.138]	[0.138]	[0.119]	[0.118]
Mindfulness Meditation (MM)	-0.208	-0.213*	-0.265**	-0.262**	-0.257**	-0.277**
	[0.129]	[0.128]	[0.117]	[0.118]	[0.120]	[0.120]
Controls	No	Yes	No	Yes	No	Yes
Observations	846	846	846	846	846	846
R-squared	0.103	0.122	0.103	0.120	0.110	0.120
p-values (CBT=MM)	0.816	0.975	0.896	0.973	0.921	0.906

Note: Robust standard errors appear in brackets (clustered at the teacher level). All dependent variables in this table are standardized to mean zero and standard deviation one. The dependent variable in Columns 1 and 2 is teachers' self-reported stress on a Likert Scale of 1-5. In Columns 3 and 4, the dependent variable is Cohen Perceived Stress Scale (PSS). The dependent variable in Columns 5 and 6 is cortisol concentration in plasma, measured in micrograms per deciliter, using the Chemiluminescence Immunoassay (CLIA) technique. Psychologist and Meditation are dummy variables that switch on for teachers who were assigned four one-hour weekly sessions of cognitive behavioral therapy and mindfulness meditation with respective experts (4 sessions) (4 sessions). Psychiatrist 0%, 50% and 100% subsidies are teachers assigned two sessions (4 weeks apart) with a psychiatrist along with vouchers of zero, half and full subsidy for prescription medicines, respectively. The teacher level controls include years of teaching experience, educational qualification, professional qualification, average teaching hours, class size, and marital status. *** p<0.01, ** p<0.05, * p<0.1.

Table B3 : Impact of Medicines Prescribed on Teacher Stress - Standardized with interaction term wristband

	(1)	(2)	(3)	(4)
	Reported Medicines usage - Standardized		Medicines Vouchers Used - Standardized	
Cognitive Behavioral Therapy X Wristband (CBT x T)	-0.328	-0.314	-0.374	-0.336
	[0.209]	[0.197]	[0.236]	[0.230]
Psychiatrist No Subsidy X Wristband (PNS x T)	0.585**	0.519**	-0.104	-0.140
	[0.253]	[0.220]	[0.234]	[0.217]
Psychiatrist Full Subsidization X Wristband (PFS x T)	0.588**	0.641***	0.483*	0.525**
	[0.251]	[0.217]	[0.270]	[0.249]
Psychiatrist with Co-paying X Wristband (PCP x T)	0.481*	0.492**	0.614**	0.629**
	[0.251]	[0.217]	[0.282]	[0.268]
Mindfulness Meditation X Wristband (MM x T)	-0.259	-0.267	-0.169	-0.141
	[0.231]	[0.218]	[0.240]	[0.231]
Wristband	-0.0428	-0.0255	-0.125	-0.122
	[0.171]	[0.140]	[0.190]	[0.176]
Cognitive Behavioral Therapy (CBT)	-0.156	-0.221	-0.0257	-0.0564
	[0.171]	[0.161]	[0.200]	[0.194]
Psychiatrist with No Subsidy (PNS)	-0.106	-0.0346	-0.245	-0.190
	[0.174]	[0.144]	[0.192]	[0.176]
Psychiatrist with Full Subsidization (PFS)	-0.109	-0.151	-0.0725	-0.0962
	[0.174]	[0.139]	[0.196]	[0.178]
Psychiatrist with Co-paying (PCP)	-0.0643	-0.112	-0.110	-0.137
	[0.173]	[0.138]	[0.194]	[0.177]
Mindfulness Meditation (MM)	-0.117	-0.207	-0.216	-0.281
	[0.184]	[0.169]	[0.202]	[0.193]
Controls	No	Yes	No	Yes
Observations	846	846	850	850
R-squared	0.189	0.318	0.192	0.255

Note: Robust standard errors appear in brackets (clustered at the teacher level). All dependent variables in this table are standardized to mean zero and standard deviation one. The dependent variable in Columns 1 and 2 is "Medicines Prescribed - Standardized" by healthcare professionals, such as doctors, for patients is a dummy variable that is 1 for teachers who are prescribed medicines and 0 for the ones not prescribed any medicines. In Columns 3 and 4, the dependent variable "Medicines Vouchers Used - Standardized" medicines vouchers that have been redeemed or used by patients. Medicines vouchers are typically coupons or tokens that patients receive to obtain prescribed medications. is a dummy variable that is 1 in case of redeemed or used and 0 for not used. Psychiatrist 0%, 50% and 100% subsidies are teachers assigned two sessions (4 weeks apart) with a psychiatrist along with vouchers of zero, half and full subsidy for prescription medicines, respectively. The teacher level controls include years of teaching experience, educational qualification, professional qualification, average teaching hours, class size, and marital status. *** p<0.01, ** p<0.05, * p<0.1.

Table B4 : Impact of credit constraints on Stress levels

	(1)	(2)	(3)	(4)	(5)	(6)
	Stress Likert		*Cohen PSS Stress*		*Cortisol Concentration*	
	Below Median Pay	*Above Median Pay*	*Below Median Pay*	*Above Median Pay*	*Below Median Pay*	*Above Median Pay*
Psychiatrist with No Subsidy (PNS)	0.0830	-0.314**	0.260	-0.414***	0.303	-0.335*
	[0.242]	[0.145]	[0.188]	[0.153]	[0.193]	[0.175]
Psychiatrist with Full Subsidization (PFS)	0.230	0.275*	0.104	-0.144	0.170	-0.0191
	[0.168]	[0.157]	[0.148]	[0.146]	[0.166]	[0.117]
Psychiatrist with Co-paying (PCP)	0.110	-0.0515	0.164	0.123	0.0353	0.219
	[0.155]	[0.166]	[0.141]	[0.189]	[0.145]	[0.140]
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	377	427	377	427	377	427
R-squared	0.251	0.221	0.217	0.223	0.265	0.247

Table B5: Impact on Teacher Stress - Standardized - Sindh Vs Punjab Teachers

	(1)	(2)	(3)	(4)	(5)	(6)
	Punjab			*Sindh*		
	Stress Likert	*Cohen PSS Stress*	*Cortisol Concentration*	*Stress Likert*	*Cohen PSS Stress*	*Cortisol Concentration*
Cognitive Behavioral Therapy (CBT)	-0.214*	-0.147	-0.216	-0.222	-0.128	-0.193
	[0.121]	[0.129]	[0.136]	[0.167]	[0.167]	[0.173]
Mindfulness Meditation (MM)	-0.173	-0.138	-0.229*	-0.289*	-0.173	-0.257
	[0.137]	[0.129]	[0.133]	[0.166]	[0.150]	[0.176]
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	485	485	485	361	361	361
R-squared	0.228	0.213	0.207	0.244	0.267	0.228
p-values (PNS = PNS)						

Table B6: Impact of Teachers' Stress on Student Stress - Standardized - Sindh Vs Punjab

	(1)	(2)	(3)	(4)
	Punjab		*Sindh*	
	Stress Likert	*Cohen PSS Stress*	*Stress Likert*	*Cohen PSS Stress*
Cognitive Behavioral Therapy	-0.0712***	-0.0691**	-0.0403	-0.0170
(CBT)	[0.0240]	[0.0273]	[0.0289]	[0.0312]
Mindfulness Meditation (MM)	-0.117***	-0.121***	-0.0894***	-0.0573*
	[0.0245]	[0.0281]	[0.0297]	[0.0292]
Controls	Yes	Yes	Yes	Yes
Observations	14,169	14,169	10,583	10,583
R-squared	0.010	0.014	0.014	0.015

Table B8: Multiple Hypothesis Testing

	(1)	(2)	(3)
	Stress Likert - Standardized	*Cohen PSS Stress - Standardized*	*Cortisol Concentration - Standardized*
Cognitive Behavioral Therapy (CBT)	-0.264**	-0.296**	-0.236**
	[0.117]	[0.123]	[0.112]
Psychiatrist with No Subsidy (PNS)	-0.191	-0.0160	0.0497
	[0.121]	[0.120]	[0.128]
Psychiatrist with Full Subsidization (PFS)	-0.00546	-0.173	-0.0511
	[0.124]	[0.122]	[0.110]
Psychiatrist with Co-paying (PCP)	-0.113	-0.111	-0.0968
	[0.121]	[0.129]	[0.114]
Mindfulness Meditation (MM)	-0.241**	-0.206*	-0.245**
	[0.120]	[0.112]	[0.112]
Controls	Yes	Yes	Yes
Observations	846	846	846
R-squared	0.036	0.024	0.021

Table B9

Panel A: Psychiatrist 0% Subsidy (PNS)

	(1)	(2)	(3)	(4)	(5)	(6)
	Stress Likert - Standardized		*Cohen PSS Stress - Standardized*		*Cortisol Concentration - Standardized*	
prop_CBT	-0.228	-0.0343	-3.291	-3.784*	-5.904**	-6.386**
	[2.368]	[2.368]	[2.062]	[2.089]	[2.801]	[2.711]
prop_mm	-0.535	-0.111	2.411	2.730	3.279	3.507
	[2.534]	[2.560]	[2.248]	[2.364]	[2.698]	[2.737]
Controls	No	Yes	No	Yes	No	Yes
Observations	424	424	424	424	424	424
R-squared	0.248	0.269	0.209	0.228	0.185	0.196

Panel B: Psychiatrist 50% Subsidy (PCP)

	(1)	(2)	(3)	(4)	(5)	(6)
	Stress Likert - Standardized		*Cohen PSS Stress - Standardized*		*Cortisol Concentration - Standardized*	
prop_CBT	0.786	1.051	-3.048	-3.700	-4.778	-5.359
	[2.681]	[2.791]	[3.104]	[2.905]	[3.979]	[3.788]
prop_mm	0.639	0.784	1.905	2.870	0.282	0.837
	[3.327]	[3.306]	[2.916]	[2.727]	[3.325]	[3.173]
Controls	No	Yes	No	Yes	No	Yes
Observations	422	422	422	422	422	422
R-squared	0.277	0.290	0.166	0.206	0.179	0.198

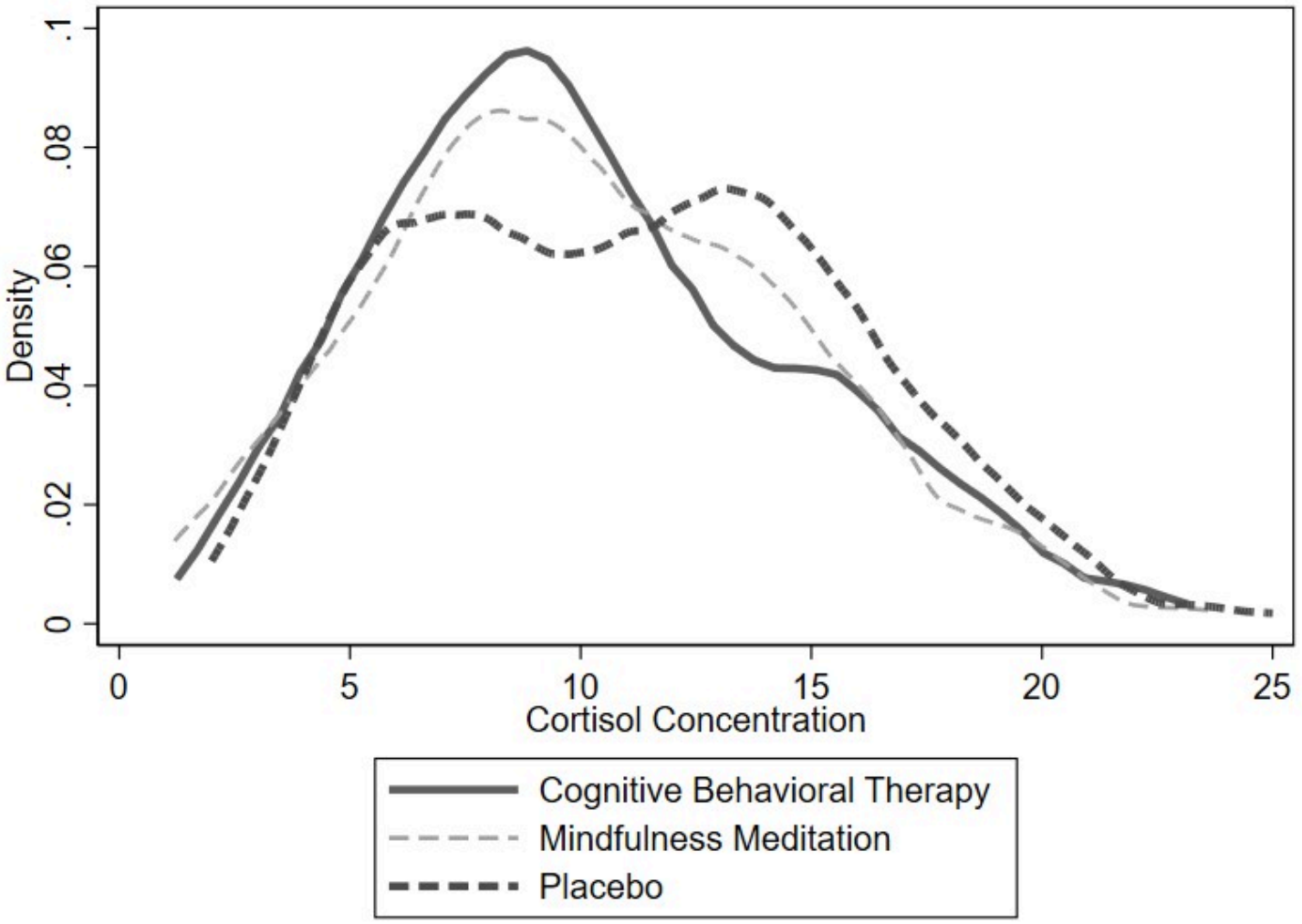
Panel C: Psychiatrist 100% Subsidy (PCP)

	(1)	(2)	(3)	(4)	(5)	(6)
	Stress Likert - Standardized		*Cohen PSS Stress - Standardized*		*Cortisol Concentration - Standardized*	
prop_CBT	-1.205	-0.730	0.141	-0.700	-4.161	-5.471
	[1.960]	[2.328]	[2.206]	[2.118]	[4.552]	[4.249]
prop_mm	3.916***	3.908**	0.114	1.075	3.324	4.475
	[1.293]	[1.583]	[3.680]	[3.516]	[3.010]	[2.766]
Controls	No	Yes	No	Yes	No	Yes
Observations	425	425	425	425	425	425

R-squared	0.208	0.230	0.204	0.230	0.200	0.227

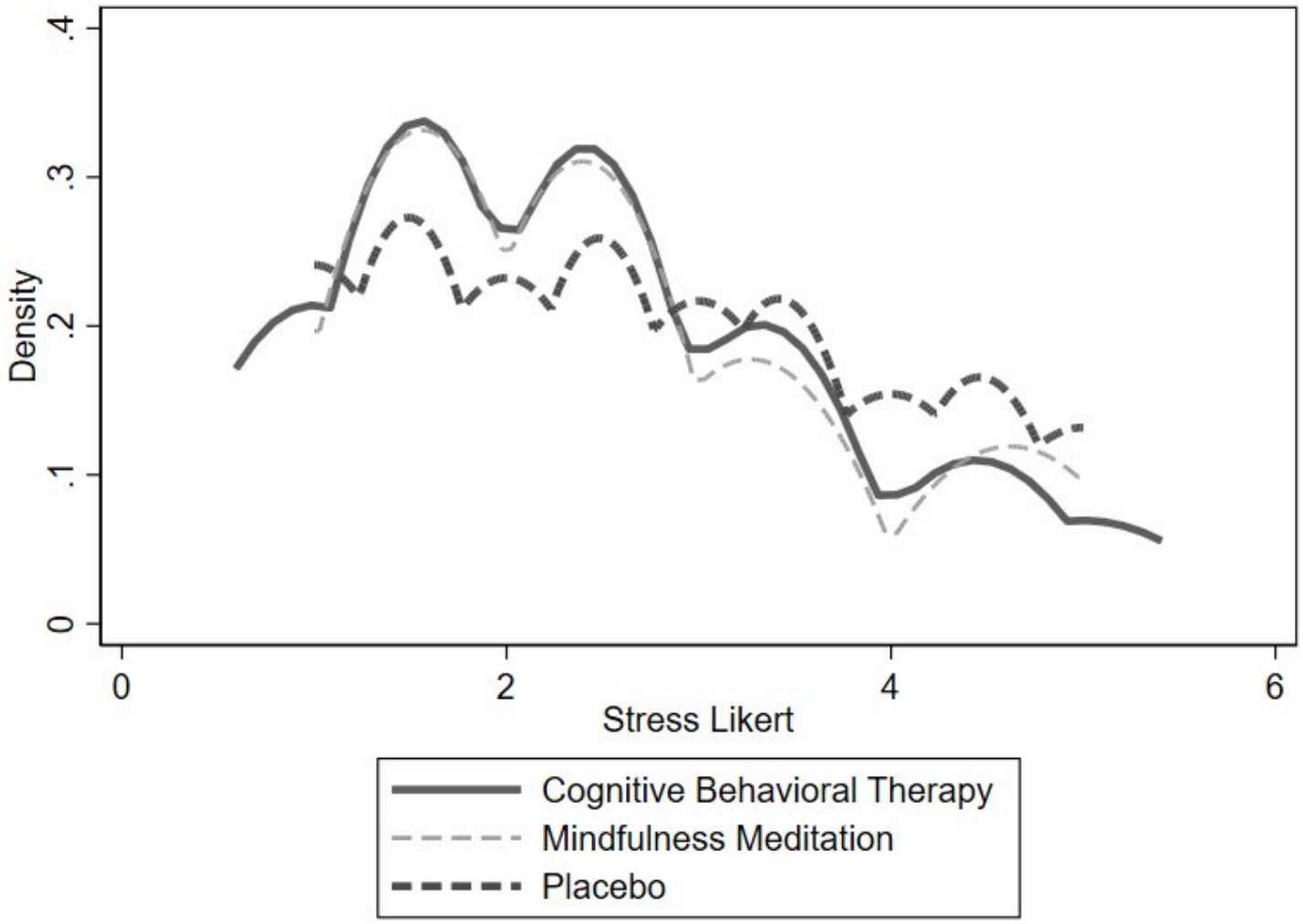
Table B11: Table Randomization Inference of Teachers Stress Measures

Figure B1 Panel A: Cortisol Concentration by Treatment Status



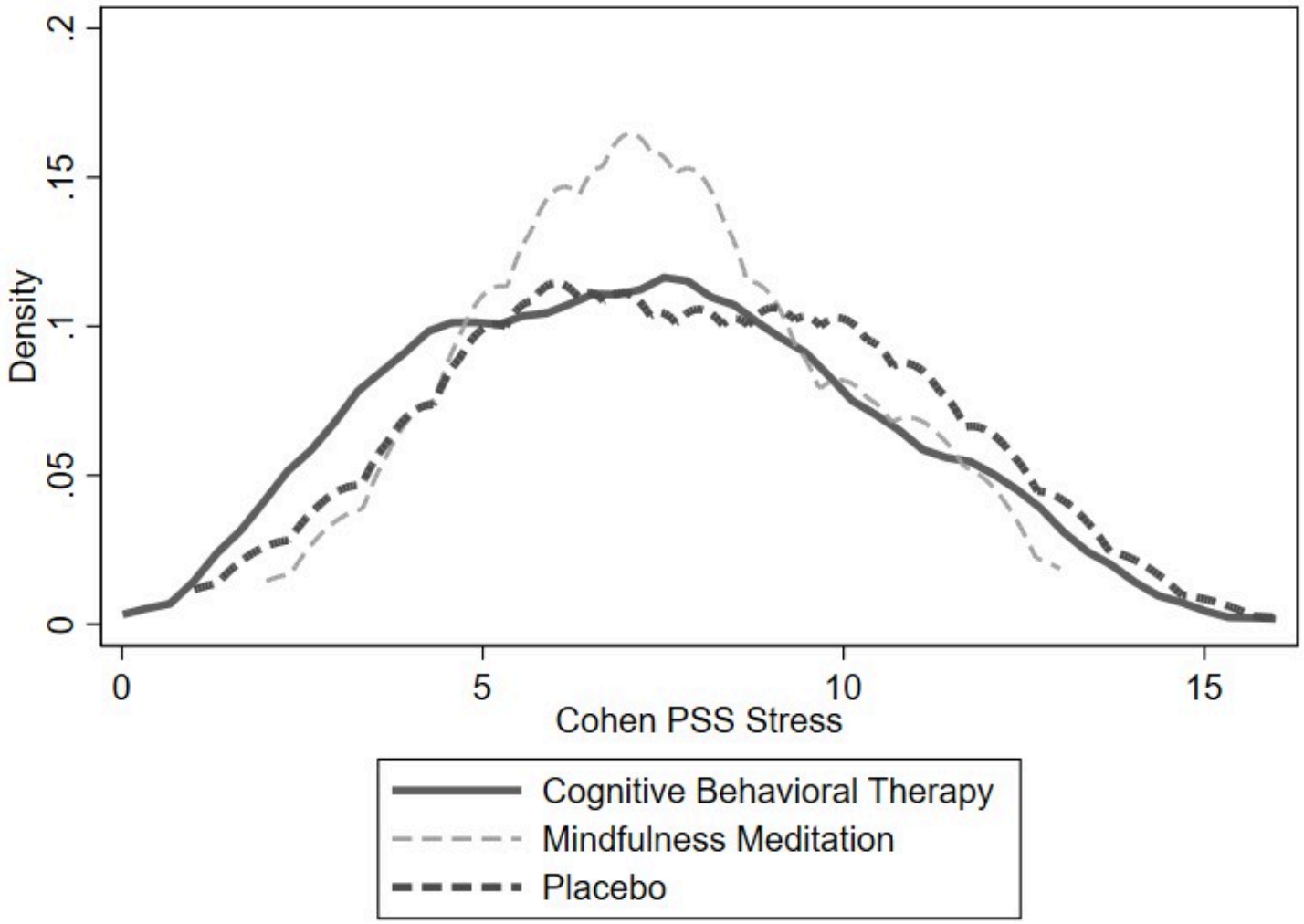
Note: In this figure, the distributions of the Cortisol Concentration measured in micrograms per deciliter are shown for the Psychologist, Meditation, Psychiatrist 0%, 50% and 100% subsidy treatments relative to the placebo group. Psychologist and Meditation are dummy variables that switch on for teachers who were assigned four one-hour weekly sessions of cognitive behavioral therapy and mindfulness meditation with respective experts (4 sessions). Psychiatrist 0%, 50% and 100% subsidies are teachers assigned sessions with a psychiatrist along zero, half and full subsidy for prescription medicines when prescribed, respectively.

Figure 1 Panel B: Cortisol Concentration by Treatment Status



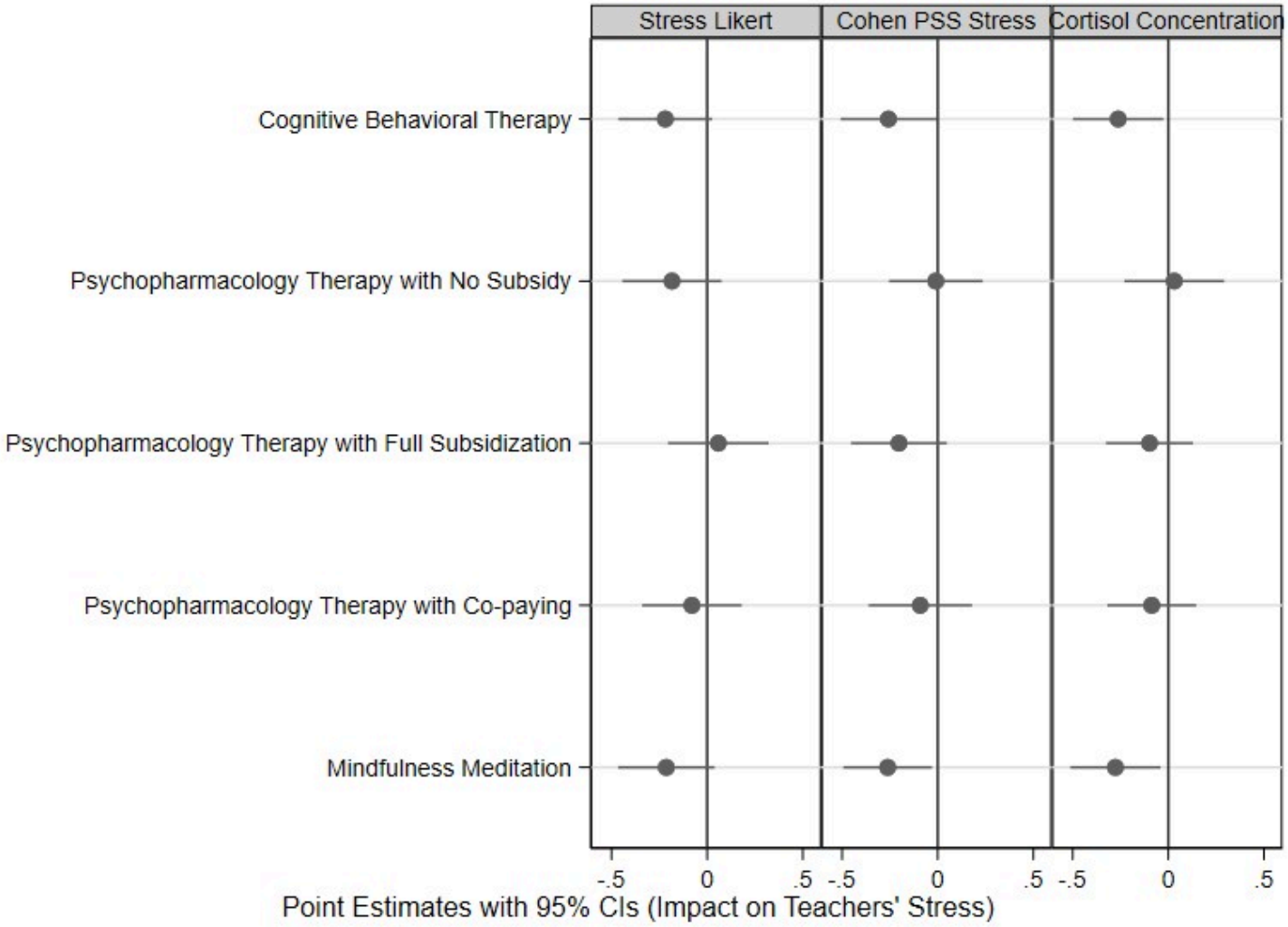
Note: In this figure, the distributions of the Stress Likert shown for the Psychologist, Meditation, Psychiatrist 0%, 50% and 100% subsidy treatments relative to the placebo group. Psychologist and Meditation are dummy variables that switch on for teachers who were assigned four one-hour weekly sessions of cognitive behavioral therapy and mindfulness meditation with respective experts (4 sessions). Psychiatrist 0%, 50% and 100% subsidies are teachers assigned sessions with a psychiatrist along zero, half and full subsidy for prescription medicines when prescribed, respectively.

Figure 1 Panel C: Cortisol Concentration by Treatment Status



Note: In this figure, the distributions of the Cohen PSS Stress shown for the Psychologist, Meditation, Psychiatrist 0%, 50% and 100% subsidy treatments relative to the placebo group. Psychologist and Meditation are dummy variables that switch on for teachers who were assigned four one-hour weekly sessions of cognitive behavioral therapy and mindfulness meditation with respective experts (4 sessions). Psychiatrist 0%, 50% and 100% subsidies are teachers assigned sessions with a psychiatrist along zero, half and full subsidy for prescription medicines when prescribed, respectively.

Figure B2: Impact on Teachers' Stress



Note: In this figure, the impact of our experimental interventions on stress are reported. These include self-reported stress on a Likert scale, Cohen PSS Stress rating and Cortisol Concentration measured in micrograms per deciliter. The coefficient estimates with respect to Psychologist, Meditation, Psychiatrist 0%, 50% and 100% subsidy treatments relative to the placebo group are reported along with corresponding 95% Confidence Interval.

Figure B3: Impact on Student's Stress

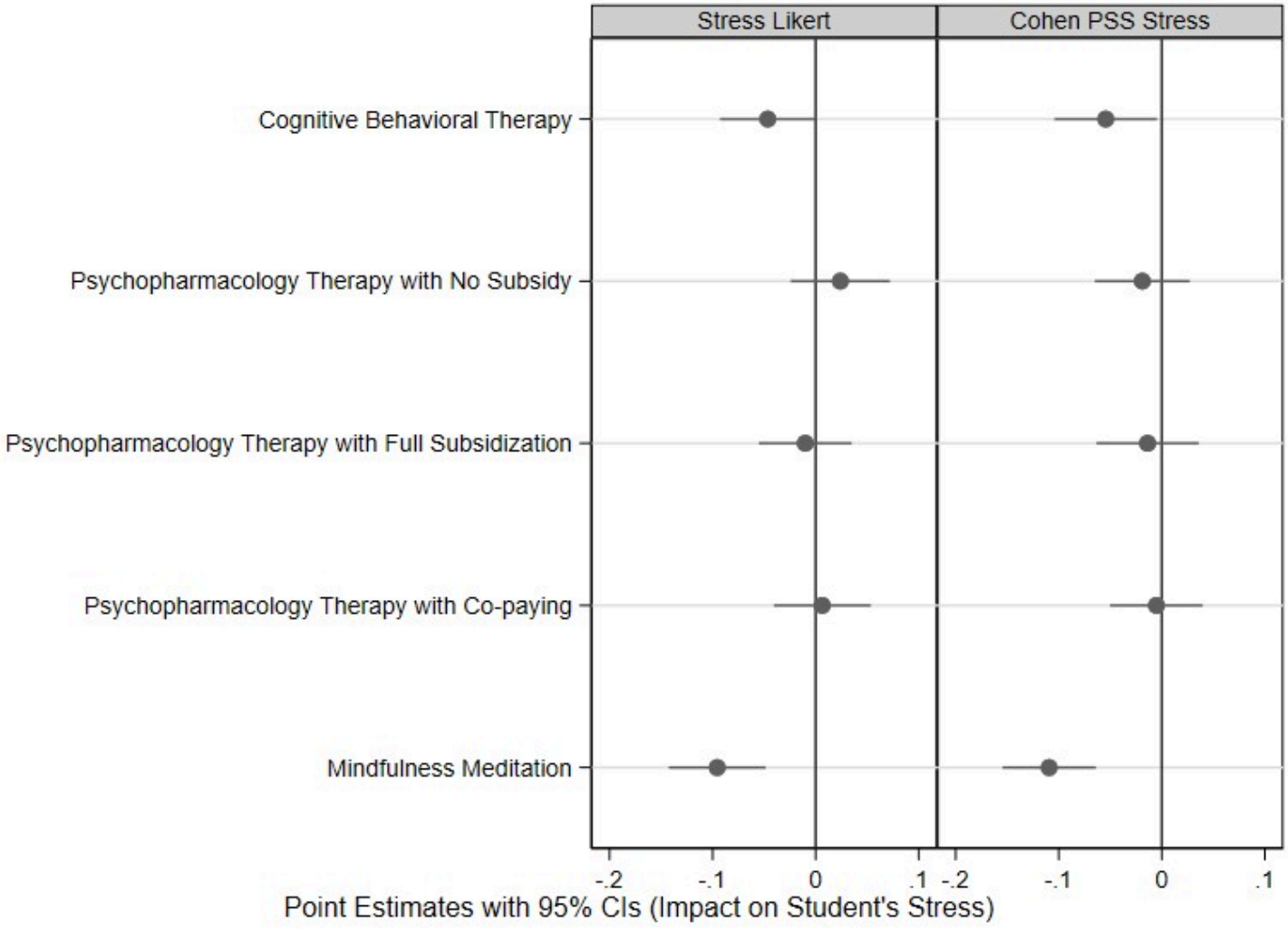
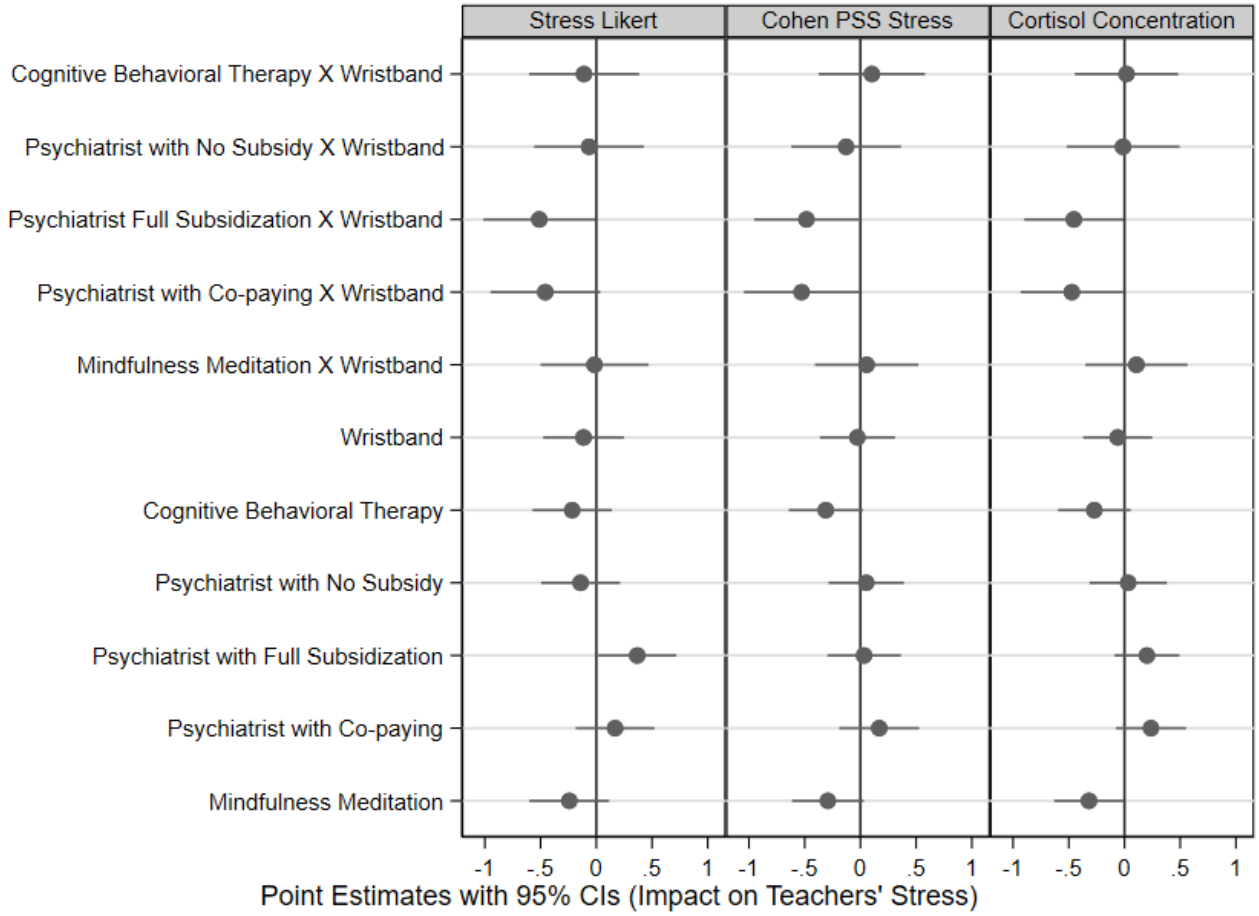
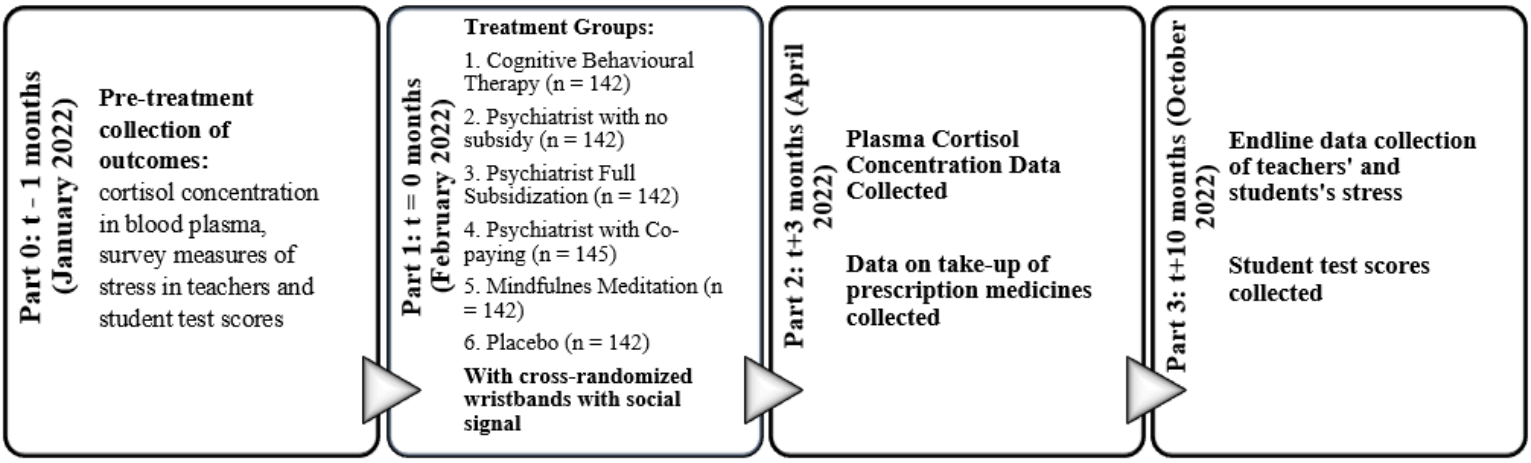


Figure B4: Treatment Heterogeneity by Social Signaling on Teachers' Stress



Note: In this figure, the impact of our experimental interventions on stress are reported. These include self-reported stress on a Likert scale, Cohen PSS Stress rating and Cortisol Concentration measured in micrograms per deciliter. The coefficient estimates with respect to Psychologist, Meditation, Psychiatrist 0%, 50% and 100% subsidy treatments relative to the placebo group are reported along with corresponding 95% Confidence Interval. The teachers were further cross-randomized into receiving a wristband with a social signal "I go to psychiatrist" and a wristband with coefficients on interaction with the treatment dummies are also reported.

Figure B5: Flow Chart of the Experiment



Note: The flowchart above illustrates the experimental set-up from pretreatment data collection in January 2022 to treatment rollout in February to endline data collection in October 2022.

Appendix C: Illustrations and pictures of Treatments

Figure A2: Illustration of the Treatments

Panel A: Psychiatrist Consultation



Panel B: Psychologist Consultation



Note:

Figure A3: Group Meditation



Figure A4: Illustration of Cross-Randomized Wristbands

Panel A: Wristband with message



Panel B: Placebo Wrist-band



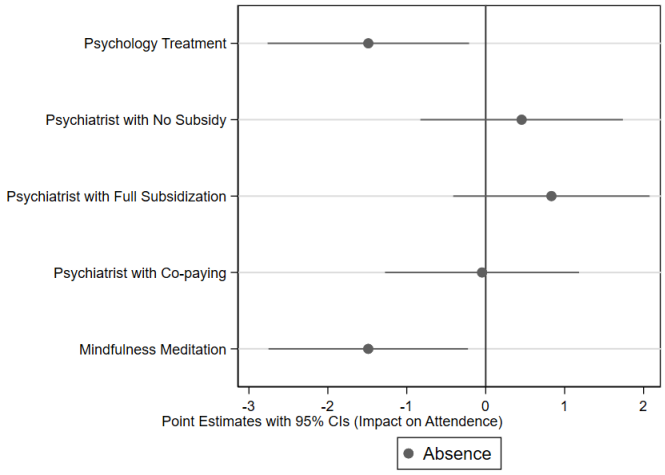
Note: The teachers are further cross-randomized into receiving a wristband with a signal "I go to psychiatrist" and a wristband with no text as illustrated in Panel A and Panel B, respectively.

Figure A5: Additional treatment pictures

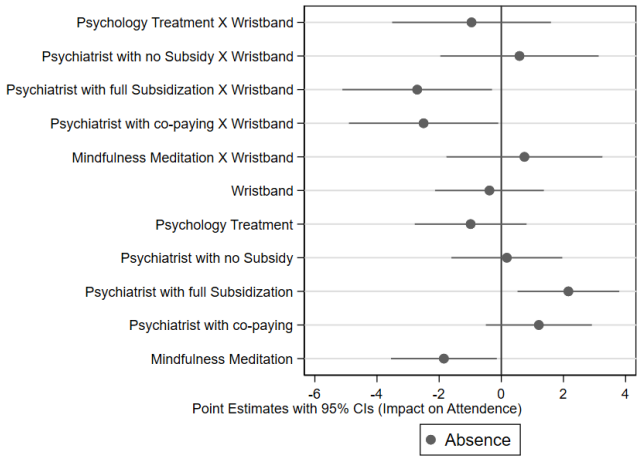
medication, psychological treatment , psychiatrist treatment pictures

Figure A6:

Panel A



Panel B:



Appendix B: Survey Instrument and Experimental Details

Table 3A: Heterogeneous Impact on Teachers by Social Signal Above Median

	(1)	(2)	(3)	(4)	(5)	(6)
	Stress Likert		Cohen PSS Stress		Cortisol Concentration	
Cognitive Behavioral Therapy X Wristband (CBT x T)	0.00584	-0.0876	-0.153	-0.185	-0.124	-0.106
	[0.412]	[0.412]	[0.345]	[0.353]	[0.349]	[0.373]
Psychiatrist No Subsidy X Wristband (PNS x T)	-0.0254	-0.00854	0.0326	0.127	-0.708	-0.628
	[0.428]	[0.432]	[0.410]	[0.417]	[0.500]	[0.504]
Psychiatrist Full Subsidization X Wristband (PFS x T)	-0.839*	-0.839*	-0.913**	-0.848**	-0.841**	-0.714*
	[0.475]	[0.456]	[0.410]	[0.408]	[0.376]	[0.378]
Psychiatrist with Co-paying X Wristband (PCP x T)	-0.786*	-0.695*	-0.891**	-0.827**	-0.742**	-0.715*
	[0.407]	[0.409]	[0.393]	[0.401]	[0.369]	[0.370]
Mindfulness Meditation X Wristband (MM x T)	0.236	0.222	-0.0744	-0.0526	-0.195	-0.206
	[0.433]	[0.434]	[0.393]	[0.405]	[0.391]	[0.407]
Wristband	-0.0913	-0.0723	0.206	0.166	0.275	0.221
	[0.326]	[0.319]	[0.264]	[0.270]	[0.251]	[0.260]
Cognitive Behavioral Therapy (CBT)	-0.567	-0.485	-0.0940	-0.0871	-0.138	-0.179
	[0.345]	[0.340]	[0.290]	[0.291]	[0.278]	[0.290]
Psychiatrist with No Subsidy (PNS)	-0.551	-0.544	-0.0698	-0.166	0.661	0.597
	[0.354]	[0.365]	[0.355]	[0.362]	[0.441]	[0.445]
Psychiatrist with Full Subsidization (PFS)	0.359	0.375	0.275	0.237	0.379	0.305
	[0.398]	[0.378]	[0.360]	[0.358]	[0.308]	[0.304]
Psychiatrist with Co-paying (PCP)	0.0842	0.0127	0.306	0.242	0.285	0.236
	[0.346]	[0.345]	[0.340]	[0.344]	[0.298]	[0.303]
Mindfulness Meditation (MM)	-0.548	-0.554	-0.159	-0.177	-0.0350	-0.0620
	[0.354]	[0.356]	[0.339]	[0.343]	[0.324]	[0.332]
Controls	No	Yes	No	Yes	No	Yes
Observations	414	414	414	414	414	414
R-squared	0.260	0.297	0.217	0.227	0.213	0.230
p-values (PNS X T = PNS)	0.483	0.484	0.889	0.696	0.132	0.181
p-values (PFS X T = PFS)	0.153	0.130	0.109	0.140	0.060	0.113
p-values (PCP X T = PCP)	0.230	0.330	0.088*	0.135	0.105	0.138

Note: Robust standard errors appear in brackets (clustered at the teacher level). The dependent variable in Columns 1 and 2 is Teacher self-reported stress. In Columns 3 and 4, the dependent variable is Cohen Perceived Stress Scale (PSS). And the dependent variable in Columns 5 and 6 is cortisol concentration in plasma, measured in micrograms per deciliter, using the Chemiluminescence Immunoassay (CLIA) technique. All dependent variables in this table are standardized to mean zero and standard deviation one. Psychologist and Meditation are dummy variables that switch on for teachers who were assigned four one-hour weekly sessions of cognitive behavioral therapy and mindfulness meditation with respective experts (4 sessions). Psychiatrist 0%, 50% and 100% subsidies are teachers assigned two sessions (4 weeks apart) with a psychiatrist along with vouchers of zero, half and full subsidy for prescription medicines, respectively. The teachers are further cross-randomized into

receiving a wristband with a social signal "I go to psychiatrist" and a wristband with no text (see Figure A4 in Appendix for an illustration).The teacher level controls include years of teaching experience, educational qualification, professional qualification, average teaching hours, class size, and marital status. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Table 3B: Heterogeneous Impact on Teachers by Social Signal Below Median

	(1)	(2)	(3)	(4)	(5)	(6)
	Stress Likert		Cohen PSS Stress		Cortisol Concentration	
Cognitive Behavioral Therapy X Wristband (CBT x T)	0.0792	0.0857	0.216	0.203	0.0624	0.00526
	[0.380]	[0.398]	[0.392]	[0.391]	[0.385]	[0.392]
Psychiatrist No Subsidy X Wristband (PNS x T)	0.340	0.431	-0.461	-0.403	0.610	0.515
	[0.387]	[0.391]	[0.436]	[0.430]	[0.410]	[0.423]
Psychiatrist Full Subsidization X Wristband (PFS x T)	0.0586	0.0178	-0.244	-0.193	-0.0739	-0.0787
	[0.334]	[0.330]	[0.366]	[0.368]	[0.334]	[0.340]
Psychiatrist with Co-paying X Wristband (PCP x T)	0.534	0.587	-0.0251	0.0743	0.0404	-0.0281
	[0.409]	[0.409]	[0.454]	[0.455]	[0.420]	[0.432]
Mindfulness Meditation X Wristband (MM x T)	0.126	0.211	0.170	0.140	0.480	0.438
	[0.346]	[0.350]	[0.376]	[0.382]	[0.355]	[0.369]
Wristband	-0.377	-0.414*	-0.380	-0.365	-0.457*	-0.434
	[0.248]	[0.247]	[0.278]	[0.280]	[0.260]	[0.270]
Cognitive Behavioral Therapy (CBT)	-0.111	-0.102	-0.451*	-0.437*	-0.240	-0.225
	[0.228]	[0.232]	[0.252]	[0.250]	[0.249]	[0.253]
Psychiatrist with No Subsidy (PNS)	-0.0795	-0.101	0.0567	0.0310	-0.174	-0.146
	[0.219]	[0.220]	[0.212]	[0.214]	[0.223]	[0.222]
Psychiatrist with Full Subsidization (PFS)	0.220	0.228	-0.0948	-0.0794	0.0349	0.0396
	[0.213]	[0.211]	[0.219]	[0.212]	[0.190]	[0.190]
Psychiatrist with Co-paying (PCP)	0.0954	0.0857	0.0652	0.0254	0.144	0.155
	[0.235]	[0.237]	[0.242]	[0.247]	[0.213]	[0.212]
Mindfulness Meditation (MM)	-0.187	-0.227	-0.447**	-0.429*	-0.378*	-0.369*
	[0.238]	[0.235]	[0.221]	[0.228]	[0.217]	[0.218]
Controls	No	Yes	No	Yes	No	Yes
Observations	432	432	432	432	432	432
R-squared	0.254	0.275	0.276	0.302	0.236	0.246
p-values (PNS X T = PNS)	0.439	0.330	0.365	0.446	0.165	0.250
p-values (PFS X T = PFS)	0.744	0.666	0.775	0.826	0.816	0.801
p-values (PCP X T = PCP)	0.439	0.378	0.882	0.936	0.852	0.746

Note: Robust standard errors appear in brackets (clustered at the teacher level). The dependent variable in Columns 1 and 2 is Teacher self-reported stress. In Columns 3 and 4, the dependent variable is Cohen Perceived Stress Scale (PSS). And the dependent variable in Columns 5 and 6 is cortisol concentration in plasma, measured in micrograms per deciliter, using the Chemiluminescence Immunoassay (CLIA) technique. All dependent variables in this table are standardized to mean zero and standard deviation one. Psychologist and Meditation are dummy variables that switch on for teachers who were assigned four one-hour weekly sessions of cognitive behavioral therapy and mindfulness meditation with respective experts (4 sessions). Psychiatrist 0%, 50% and 100% subsidies are teachers assigned two sessions (4 weeks apart) with a psychiatrist along with vouchers of zero, half and full subsidy for prescription medicines, respectively. The teachers are further cross-randomized into receiving a wristband with a social signal "I go to psychiatrist" and a wristband with no text (see Figure A4 in Appendix for an illustration).The teacher level controls include years of teaching experience, educational qualification, professional qualification, average teaching hours, class size, and marital status. *** p<0.01, ** p<0.05, * p<0.1.

Table 2a: Impact on Teacher Stress(Stress likert scale) - Standardized

	(1)	(2)	(3)	(4)	(5)
	z_stress_likert 1	z_stress_likert 2	z_stress_likert 3	z_stress_likert 4	z_stress_likert 5
Cognitive Behavioral Therapy (CBT)	0.146	0.258*	-0.197	-0.0918	-0.193
	[0.146]	[0.148]	[0.164]	[0.135]	[0.139]
Psychiatrist with No Subsidy (PNS)	0.183	0.209	-0.322**	-0.0190	-0.0943
	[0.148]	[0.140]	[0.151]	[0.163]	[0.146]
Psychiatrist with Full Subsidization (PFS)	0.0480	-0.0680	-0.308**	0.199	0.211
	[0.136]	[0.138]	[0.154]	[0.155]	[0.169]
Psychiatrist with Co-paying (PCP)	0.0790	0.139	-0.270*	0.179	-0.131
	[0.157]	[0.145]	[0.161]	[0.163]	[0.154]
Mindfulness Meditation (MM)	0.168	0.246*	-0.285*	-0.130	-0.0562
	[0.139]	[0.147]	[0.153]	[0.133]	[0.153]
Controls	yes	yes	yes	yes	yes
Observations	607	607	607	607	607
R-squared	0.102	0.131	0.081	0.094	0.119

Table 2b: Impact on Teacher Stress(PSS Stress) - Standardized

	(1) z_stresspss_1	(2) z_stresspss_2	(3) z_stresspss_3	(4) z_stresspss_4
Cognitive Behavioral Therapy (CBT)	-0.297**	-0.0710	-0.0523	-0.145
	[0.127]	[0.128]	[0.130]	[0.126]
Psychiatrist with No Subsidy (PNS)	0.0866	-0.212	0.00266	0.101
	[0.132]	[0.138]	[0.130]	[0.130]
Psychiatrist with Full Subsidization (PFS)	-0.225*	-0.154	-0.0432	-0.0220
	[0.126]	[0.129]	[0.125]	[0.128]
Psychiatrist with Co-paying (PCP)	-0.0220	-0.00592	-0.179	0.00665
	[0.125]	[0.128]	[0.123]	[0.132]
Mindfulness Meditation (MM)	-0.390***	-0.0245	-0.0346	-0.125
	[0.127]	[0.130]	[0.121]	[0.126]
Controls	yes	yes	yes	yes
Observations	846	846	846	846
R-squared	0.110	0.118	0.092	0.131

Table 2c: Impact on Teacher Stress(PHQ - 9 Scale) - Standardized

	(1) z_little_interest	(2) z_feeling_down	(3) z_isomnia	(4) z_little_energy	(5) z_poor_appetite	(6) z_feel_bad	(7) z_no_concentration	(8) z_restless	(9) z_suicidal
Cognitive Behavioral Therapy (CBT)	0.00480	0.0108	0.105	-0.0886	0.0366	0.000413	-0.00316	0.0141	-0.0270
	[0.120]	[0.120]	[0.119]	[0.123]	[0.122]	[0.127]	[0.128]	[0.125]	[0.122]
Psychiatrist with No Subsidy (PNS)	-0.0479	-0.0251	0.0146	-0.0175	0.0181	-0.0232	0.00476	0.0341	-0.0934
	[0.119]	[0.119]	[0.119]	[0.120]	[0.119]	[0.122]	[0.119]	[0.119]	[0.123]
Psychiatrist with Full Subsidization (PFS)	-0.151	-0.156	-0.0734	-0.0885	-0.0807	-0.108	-0.0878	-0.0234	-0.199
	[0.118]	[0.117]	[0.119]	[0.125]	[0.120]	[0.123]	[0.123]	[0.122]	[0.125]
Psychiatrist with Co-paying (PCP)	0.0987	0.130	0.140	0.0659	0.169	0.0852	0.118	0.142	-0.0636
	[0.122]	[0.121]	[0.123]	[0.131]	[0.126]	[0.127]	[0.127]	[0.129]	[0.123]
Mindfulness Meditation (MM)	-0.0770	-0.0791	0.0174	-0.0796	-0.00116	0.0196	0.00493	0.00391	-0.0922
	[0.124]	[0.123]	[0.123]	[0.127]	[0.123]	[0.125]	[0.125]	[0.124]	[0.124]
Controls	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	850	850	850	850	850	850	850	850	850
R-squared	0.151	0.153	0.145	0.131	0.130	0.115	0.132	0.129	0.126

Breakdown by gender (heterogeneity)

	(1) z_maths	(2) z_english	(3) z_urdu	(4) z_GK_embedded
psychology	0.0196	0.195***	0.163***	0.00800
	[0.0309]	[0.0431]	[0.0345]	[0.0292]
psychiatrist_own_pocket	0.00538	0.00952	0.0279	-0.0159
	[0.0276]	[0.0338]	[0.0302]	[0.0276]
psychiatrist_subsidized	0.0221	0.00496	0.0115	-0.0257
	[0.0288]	[0.0369]	[0.0337]	[0.0282]
psychiatrist_half_own_pocket	0.0133	0.0458	0.0265	-0.0271
	[0.0293]	[0.0362]	[0.0341]	[0.0278]
mindfulness_meditation	0.0216	0.173***	0.132***	0.00343
	[0.0306]	[0.0432]	[0.0358]	[0.0281]
Observations	18,003	18,003	18,003	18,003

R-squared	0.015	0.024	0.012	0.012

VARIABLES	(1) z_maths	(2) z_english	(3) z_urdu	(4) z_GK_embedded
psychology	0.142***	0.182**	0.133**	0.0410
	[0.0513]	[0.0903]	[0.0585]	[0.0576]
psychiatrist_own_pocket	0.0809*	0.0155	-0.00990	0.0221
	[0.0476]	[0.0705]	[0.0450]	[0.0480]
psychiatrist_subsidized	0.0954	0.0917	0.164***	0.0933*
	[0.0621]	[0.0870]	[0.0596]	[0.0492]
psychiatrist_half_own_pocket	0.0381	0.00758	-0.0140	-0.0967
	[0.0494]	[0.0982]	[0.0780]	[0.0847]
mindfulness_meditation	0.136**	0.0810	0.0595	-0.00164
	[0.0565]	[0.0800]	[0.0553]	[0.0523]
Constant	0.0361	-0.212**	-0.297*	0.0221
	[0.0977]	[0.0859]	[0.168]	[0.151]
Observations	6,750	6,750	6,750	6,750
R-squared	0.024	0.031	0.020	0.019

Table B11: Table Randomization Inference of Teachers Stress Measures

	(1) *Stress Likert - Standardized*	(2) *Cohen PSS Stress - Standardized*	(3) *Cortisol Concentration - Standardized*
Cognitive Behavioral Therapy (CBT)	-0.264**	-0.296**	-0.236**

	[0.117]	[0.123]	[0.112]
Psychiatrist with No Subsidy (PNS)	-0.191	-0.0160	0.0497
	[0.121]	[0.120]	[0.128]
Psychiatrist with Full Subsidization (PFS)	-0.00546	-0.173	-0.0511
	[0.124]	[0.122]	[0.110]
Psychiatrist with Co-paying (PCP)	-0.113	-0.111	-0.0968
	[0.121]	[0.129]	[0.114]
Mindfulness Meditation (MM)	-0.241**	-0.206*	-0.245**
	[0.120]	[0.112]	[0.112]
Controls	Yes	Yes	Yes
Observations	846	846	846
R-squared	0.036	0.024	0.021

Table : Balance over Teacher Characteristics of Punjab

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Pre-Treat Cortisol	*Pre-Treat Stress*	*Married*	*Av. Teaching Hours*	*Av. Class Size*	*Teaching Experience*	*Years of Education*	*Educational Specialization*	*Pre-Treatment Stigma*
Cognitive Behavioral Therapy (CBT)	0.662	-0.00897	-0.0864	0.800*	-0.969	0.0342	-0.120	0.0124	-0.0614
	[0.491]	[0.143]	[0.0670]	[0.481]	[2.727]	[0.495]	[0.214]	[0.0570]	[0.149]
Mindfulness Meditation (MM)	0.733	0.0601	-0.0634	0.0725	2.441	0.114	0.202	-0.0757	0.123
	[0.526]	[0.161]	[0.0738]	[0.388]	[2.591]	[0.494]	[0.223]	[0.0558]	[0.150]
School Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	485	485	485	485	485	485	485	485	485
R-squared	0.264	0.226	0.177	0.140	0.345	0.236	0.342	0.261	0.165

Table : Balance over Teacher Characteristics of Sindh

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Pre-Treat Cortisol	*Pre-Treat Stress*	*Married*	*Av. Teaching Hours*	*Av. Class Size*	*Teaching Experience*	*Years of Education*	*Educational Specialization*	*Pre-Treatment Stigma*
Cognitive Behavioral Therapy (CBT)	-0.177	-0.00854	-0.112	-0.0563	-1.914	-0.0746	0.456*	0.0194	0.196
	[0.784]	[0.192]	[0.0728]	[0.162]	[2.721]	[0.522]	[0.272]	[0.0707]	[0.191]
Mindfulness Meditation (MM)	1.035	0.138	-0.146*	0.344	-0.0659	-0.518	0.0569	0.00777	0.275
	[0.746]	[0.200]	[0.0787]	[0.402]	[2.771]	[0.481]	[0.265]	[0.0639]	[0.188]
School Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	361	361	361	361	361	361	361	361	361
R-squared	0.298	0.271	0.268	0.184	0.422	0.274	0.357	0.309	0.218