Talk Therapy and Human Capital in Adolescence: Evidence from Nepal

Eric Edmonds, Priya Mukherjee,
Nikhilesh Prakash, Nishith Prakash and Shwetlena Sabarwal*

March 20, 2025

Abstract

We examine the impact of a randomized therapy intervention on Nepalese adolescents at risk of school dropout. Our study is the largest of its kind (N = 1,707) and is novel in that participation does not require a preexisting diagnosis. Ninety percent of those offered therapy participated, with younger adolescents demonstrating higher compliance. Among those who complied, therapy significantly reduced psychological distress, improved emotional regulation, and enhanced life perspective, even in individuals without baseline mental health issues. However, these improvements in well-being did not lead to increased school attendance or better cognitive performance, suggesting that additional interventions may be necessary to enhance educational engagement in low-resource settings.

Keywords: Teen Mental Health, Education, Therapy, Nepal
JEL Codes: D12, I12, I15, I31, I32, O12, O18

*Eric Edmonds: Dartmouth College and NBER, eedmonds@dartmouth.edu. Priya Mukherjee: University of Wisconsin-Madison and IZA, priya.mukherjee@wisc.edu. Nikhilesh Prakash: Stockholm School of Economics, nikhilesh.prakash@phdstudent.hhs.se. Nishith Prakash: Northeastern University, CESifo, IZA, CReAM, HiCN and GLO, n.prakash@northeastern.edu. Shwetlena Sabarwal: The World Bank, ssabarwal@worldbank.org. This study was pre-registered in the AEA RCT Registry: https://www.socialscienceregistry.org/trials/7782. It was reviewed by the Nepali Health Research Council IRB and approved on December 21, 2021 with approval number 672/2021. Funding provided by the World Bank. The original pre-analysis plan is available here: https://sites.dartmouth.edu/eedmonds/files/2022/09/PAP_EMPPS.pdf. The populated PAP is available here:https://sites.dartmouth.edu/eedmonds/files/2025/01/empps_populatedpap.pdf. Our PAP was aimed at the research question of how therapy influences schooling whereas this study focuses on how subjects are impacted by therapy. Changes are described in On-Line Appendix G. We are extremely thankful to Centre for Mental Health and Counselling - Nepal and especially Pashupati Mahat for implementing this intervention. We are grateful for the research assistance of Ariana Rodriguez Bruzon, Mridul Mishra, Deepika Shrestha, and Anisha Singhal.

1 Introduction

Mental health is crucial for overall well-being and is a key focus of the United Nations' Sustainable Development Goals (Patel et al., 2018). Poor mental health can perpetuate poverty traps by limiting economic opportunities, whereas enhancements in mental health can boost maternal investments in human capital (Baranov et al., 2019) and promote pro-social behavior (Blattman et al., 2017). Recent evidence indicates that therapy interventions can directly raise income (Ridley et al., 2020; Lund et al., 2024; Barker et al., 2022), underscoring the economic rationale for embedding mental health in development policies.

Despite advances, evidence primarily pertains to adults with limited understanding of therapy's impact on adolescent human capital formation. This study employs a randomized controlled trial (RCT) of private therapy sessions to assess whether therapy enhances mental health and school engagement among adolescents at risk of dropout in urban and semi-urban Nepal. The research is conducted in collaboration with the Center for Mental Health and Counseling-Nepal (CMC-Nepal). Therapy sessions were provided at no cost, tailored to each child's needs, and consisted of four to six weekly individual sessions and two family sessions of 60 minutes each over two months.

Our sample includes 1,707 adolescents from 40 government schools across seven municipalities, selected in collaboration with local authorities and school principals. Teachers identified potential dropouts, who were then randomly assigned to one of four groups: (1) talk therapy, (2) education nudge, (3) therapy plus nudge, or (4) control.[1] Attrition was 4% and unrelated to treatment assignment, yielding 1,635 subjects at endline.

Random assignment induced therapy improved mental health, reducing psychological distress by 0.16 standard deviations (SD). Exploring mechanisms, therapy enhanced emotional regulation (0.18 SD) and perspective on life (0.08 SD). Adolescents' improvements are consistent with caregiver observations. These improvements in emotional regulation and outlook are similar to what

[1]This experiment was designed to understand the mechanisms behind how therapy increases education. The nudge aimed to separate the effects of general therapeutic interactions from schooling discussions. Our nudge implementation does not appear to have had any impacts.

Barker et al. (2022) find in their study of group therapy for adults in Ghana. We do not find significant changes in healthier habits like studying hard or self-care. Therapy primarily influences psychological rather than behavioral outcomes in this population.

Despite enhanced mental health and strong correlations between mental health and education in observational studies (Maynard et al., 2018) , therapy did not significantly influence educational engagement. Multiple measures, including self-reports, caregiver reports, and school records, revealed no differences in attendance between treated and control groups. Furthermore, cognitive skills evaluated through digit span tests exhibited no significant differences. Our findings for Nepali teens without a preexisting diagnosis are analogous to Angelucci and Bennett (2024)'s pharmacotherapy intervention for adults with depression in India in that they observe declines in depression symptoms without changes in work.

This study contributes to the literature on talk therapy by demonstrating feasibility and effectiveness in low-income settings. Contrary to prevalent assumptions regarding infrastructural and stigma-related barriers (Rai et al., 2021), 89% of those offered therapy participated with 99% of first-session attendees opting for subsequent sessions, underscoring openness to therapy and feasibility even in resource-limited settings. Younger teens were notably more receptive to therapy. While there has been considerable attention to the economic impact of therapy in adults, we have only identified 10 other studies of therapy RCTs aimed at teens in low or middle income countries with fewer treated subjects summed across all those studies than in the present study (Appendix D, 763 vs. 808). Our study underscores the value of further investigation into the benefits of therapy for teens, especially over longer time horizons than feasible here, given that adolescence is a distinct developmental stage where therapy effects may differ from adulthood (Colizzi et al., 2020).

A novel aspect of our intervention is the inclusion of adolescents without preexisting medical diagnoses. Aligning with Barker et al. (2022), who found CBT effective for undiagnosed adults, we demonstrate that therapy benefits adolescents across the mental health spectrum, albeit differently. Adolescents lacking baseline mental health issues showed significant improvements in emotional

regulation and outlook, while those with issues experienced greater reductions in psychological distress. Our findings challenge the traditional focus on diagnosed populations, emphasizing therapy's multidimensional impact across mental health profiles (Jakobsson et al., 2024). Moreover, in low-income contexts where limited awareness of mental health issues likely impedes individuals' ability to self-screen, the fact that we see broad-based benefits mitigates concerns about inefficient targeting for broad-based interventions (Gulliver et al., 2010; Hodgkinson et al., 2017).

Previous adolescent mental health interventions without diagnostic prerequisites typically focus on classroom-based skill-building (Alan and Ertac, 2018; Alan et al., 2019; Ashraf et al., 2020; Dhar et al., 2022) or life skill and resilience training (Shortt et al., 2001; Gillham et al., 2007; McNally Keehn et al., 2013; Edmonds et al., 2023; Shah et al., 2024). They often report improvements in schooling. Classroom designs obscure the differentiation of therapeutic effects from peer dynamics or classroom interactions. Our study isolates individualized therapeutic impacts, finding mental health improvements without educational engagement. These findings underscore the significance of specific content and group interactions in previously reported educational effects, suggesting that enhanced emotional well-being may not suffice to mitigate barriers to educational engagement in the current global teen mental health and school attendance crisis (Dalforno et al., 2022; Twenge and Blanchflower, 2025).

2 Experimental Design

2.1 Treatment

Funded by a contract with the World Bank, CMC–Nepal implemented a private talk therapy intervention for adolescents in seven urban or semi-urban municipalities targeted for CMC's operational expansion, March - June 2022. As the largest mental health care provider in Nepal, CMC adopts an integrative therapeutic approach, primarily utilizing CBT.[2] Its structured sessions tar-

[2]CMC–Nepal was established in 2003, registered in the Kathmandu District Administration Office (838-059/060), and affiliated to the Social Welfare Council (14822) of the Government of Nepal.

get five key adolescent mental health concerns: (i) anxiety, (ii) depression and suicide risk, (iii) school bullying, (iv) substance abuse, and (v) stress. The intervention begins with an introductory session to establish rapport and familiarize participants with psychosocial counseling. Subsequent sessions address common mental health challenges, often employing media such as case stories and videos. A smartphone app with curated mental health content was available to participants, though all essential materials were integrated into in-person sessions for accessibility.

The therapy protocol consisted of six weekly, one-hour private sessions, provided at no cost to participants. CMC administered four sessions for all participants, with an additional two for adolescents needing more support. Out of 818 adolescents offered therapy, 484 completed more than four sessions. Each therapist also conducted two family therapy sessions, totaling eight contact sessions and approximately eight hours of treatment.[3] The implementation of talk therapy in Nepal through CMC involved nineteen trained counselors, all with prior experience.

Alongside talk therapy, 814 adolescents participated in an educational encouragement intervention. Of these, 408 adolescents received both therapy and the educational nudge, while 406 received only the nudge. The nudge was lead by a separately trained team of facilitators recruited and trained by CMC specifically for this project. We included the nudge based on our hypothesis that information on education's importance could mediate the effect of therapy on schooling outcomes (Jensen, 2010; Dinkelman and Martínez A, 2014). However, this single one-hour session appeared to lack salience for participants, and we assume it has no effect in our analysis.[4]

Our theory of change comes from the short-term effect of therapy. In the long run, therapy aims to restructure brain function (Yoshimura et al., 2014), but in the short term, it equips individuals with coping skills, healthier habits, and alternative perspectives on life's challenges (Leichsenring et al., 2004). We focus on these short-run effects because our endline follows two months after the end of treatment.

[3]This level of treatment intensity aligns with six of the ten studies identified in our meta-analysis in Appendix D. The remaining four studies had longer intended treatment durations, though actual session attendance was often lower. For instance, the longest reported intervention lasted 16 hours, but participants attended an average of only seven sessions of unspecified length (Murray et al., 2015). Other studies failed to report the number of sessions completed, further limiting comparability.

[4]Further details about this intervention is provided in Appendix C.

2.2 Randomization

For its expansion, CMC targeted government schools serving grades 6–12. After screening headmasters' willingness to participate, CMC partnered with local governments to select 40 schools. In the fall of 2021, field staff enumerated students enrolled in these schools over the previous two years. Teachers assessed dropout risk, identifying an initial pool of 2,122 at-risk or dropped-out students. After removing duplicates and unlocatable students, the sample size was reduced to 1,942.

After a resurgent pandemic disrupted baseline survey in early 2022 (Appendix C), the 1,942 listed students were stratified by municipality, gender, age, dropout risk, enrollment status, and baseline survey completion. In February 2022, a simple random number generator assigned students within each stratum to one of four groups: therapy without an education nudge ("therapy-"), an education nudge without therapy ("nudge"), therapy with a nudge ("therapy+"), and a pure control group. CMC's contract required dropping several strata at random to achieve a sample size of 1,803. Subsequently, 10 more duplicates were identified, resulting in a final randomized sample of 1,783 students. The average student is a 15-year-old male in grade 9 as of Fall 2021. 10% are behind in school and 30% are at high risk of dropout according to teachers.

The early 2022 wave of the pandemic made it impossible to ascertain consent prior to randomization. All students randomized into a treatment arm who consented to therapy were offered treatment by CMC. CMC's consent process is separate from consent to be included in the research study. Ultimately, 1707 out of 1783 subjects consented to participate in our research. Outcome data, available from August 2022, pertains to 1635 of these consenting subjects, forming the basis for this evaluation.

As the school records data are used in stratification for randomization, study characteristics are mechanically balanced across treatment arms. However, our analysis is based on consenting subjects with endline data. We have administrative records on children that consented to the study and those that did not, and the F-Statistic associated with the null that random assignment does not predict consent is 0.25. The final sample with consent and outcome data appears balanced across

randomization arms in raw means (Appendix Table B1). We test this null using a Seemingly Unrelated Regression (SUR) by regressing each available student characteristic on the vector of treatment assignments and testing the cross-equation restriction that treatment assignment does not predict the study characteristics. This SUR test has a Chi-square statistic of 6.88 and an associated P-value of 0.991.

Our definition of attrition is a consenting subject that was not interviewed at endline. Under this definition, we have a 4 percent attrition rate. If we exclude therapy RCTs that condition their analysis entirely on non-attritors, our attrition rate is 86 percent below the average attrition rate in other therapy RCTs aimed at adolescents in low and middle income countries (Appendix D). We test the null that random assignment has no impact on attrition. This hypothesis is associated with an F-Statistic 0.72. The F-Statistic associated with the null that random assignment does not predict attrition-cum-consent is 0.37.

3 Empirical Specification

The central question is whether receiving therapy improves mental health and school attendance. Accordingly, we focus on compliers—those induced by randomization to take up therapy. We anticipate imperfect compliance due to administrative hurdles at CMC-Nepal and because some participants initially consented but later declined treatment. Our goal is to estimate the effect of randomization-induced therapy uptake on key outcomes:

$$y_{is} = \beta_0 + \beta_1 D_{is} + f_s + \varepsilon_{1,is}, \tag{1}$$

where y_{is} is the outcome of interest for individual i in stratum s, f_s are stratum fixed effects, and $\varepsilon_{1,is}$ is an error term robust to heteroskedasticity. The variable D_{is} measures therapy exposure. To address potential endogeneity in D_{is}, we instrument with random assignment, so β_1 measures the impact on y_{is} of randomization-induced therapy participation.

We do not assume any specific threshold of sessions needed for therapy to affect mental health.

Thus, our primary specification examines having any therapy, but we also consider completing six sessions, four sessions (some were offered only four), or the continuous number of sessions. The choice of number of sessions is endogenous to latent potential returns to therapy. Hence, the characteristics of subjects induced into different number of sessions by randomization should be incomparable. We view the differences in treatment effects associated with varying treatment intensity as helpful in evaluating whether there is an impact of therapy, but readers should not draw inferences about the impact of adding more intensive treatments.

We estimate (1) using Two-Stage Least Squares (2SLS), modeling therapy uptake as:

$$D_{is} = \alpha_0 + \alpha_1 RA_{is} + f_s + \varepsilon_{0,is}, \tag{2}$$

where RA_{is} indicates the participant's assigned treatment. A random process allocated subjects to four groups: control, therapy without nudge (therapy–), therapy with nudge (therapy+), or nudge only. Our main specification uses the full vector of assignments as instruments for therapy uptake. In the appendix, we also pool the two therapy arms as one instrument as well as comparing therapy– to the control group (omitting any nudge group from the analysis).

Finally, we present reduced-form (intent-to-treat) estimates for all outcomes in our appendices. We test whether the reduced-form impact differs between therapy– and therapy+ for each outcome category using seemingly unrelated regressions but never reject equality. We also never reject the null that the nudge alone had no effect. This supports our hypothesis that the nudge was a failed implementation.

4 Main Results

4.1 Participation

Assignment to a therapy treatment arm increases exposure to therapy, as shown in Table 1. Columns 1–5 present results from administrative records, and columns 6–7 use the endline survey. For each

column grouping, the first column (1 and 6) reports results where random assignment is defined as being assigned to either the therapy– or therapy+ arm. The remaining columns use the full random assignment variation and serve as the first-stage specifications used throughout the paper.

Unlike other work (Hodgkinson et al., 2017; Bharadwaj et al., 2017), we find high compliance. In the administrative records, no therapy is recorded for the control group, and 89% of those assigned to therapy receive some therapy. The remaining 11% are non-compliers. Among those assigned, 35% complete six sessions, and 82% complete at least four. The gap between columns 2 and 4 indicates that fewer than 5% of therapy recipients have under four sessions (Appendix Figure A1). While the mode is six sessions, the mean (column 5) is 4.3.

Measuring therapy participation through self-report is challenging for a control group that may not recognize therapy. In our endline survey, 13% of the control group reported receiving therapy, likely reflecting misunderstanding rather than substantive leakage. Some respondents who received the nudge also perceived it as therapy. Overall, assignment to a therapy arm increases self-reported therapy by 40 percentage points (a three-fold increase). Both the therapy- and therapy+ arms (column 7) raise self-reports of therapy relative to control or nudge assignment.

Because our focus is on the impact of receiving therapy (i.e., on compliers), we examine how compliers differ from non-compliers.[5] Appendix Table B2 summarizes background characteristics for every definition of treated considered. Age, current grade, and drop-out risk standout as predictors of compliance. If we partial out the correlation between age and drop-out risk or grade, neither residual significantly predicts compliance. Thus, we infer that age is the primary driver of non-compliance. Figure 1 shows take-up by age and the age histogram for those assigned to a therapy arm. Take-up exceeds 90% among younger teens and begins to decline at age 15, consistent with prior developmental psychology research (Steinberg and Silverberg, 1986; Smetana et al., 2005; Brown and Larson, 2009). Older adolescents' desire for autonomy and independence or increased social awareness may lead to increased resistance to therapy.

[5] All 10 of the other RCTs we found (Appendix D) define treatment based on non-random take-up rather than the randomized offer. Hence, there is no comparable literature on adolescents in low- or middle-income countries.

4.2 Mental Health

Randomization-induced therapy improves mental health. Table 2 presents these results, where each coefficient is from a separate regression. A higher value of each outcome variable indicates more severe symptoms. We include an aggregate Psychological Distress Index (PDI) and its components for anxiety (GAD-7, Casares et al. (2024)), depression (PHQ-8, López-Torres et al. (2019)), and caregiver assessments. Appendix F defines all variables. Those induced into therapy based on random assignment score approximately 0.16 standard deviations lower on PDI. We also observe improvements in depression and caregiver perceptions of mental health among treated subjects with improvements in anxiety slightly smaller in magnitude and not significant at 5 percent.

We are cautious in interpreting differences by treatment intensity, but the findings in Table 2 are consistent with the hypothesis that more intensively treated subjects experience greater improvements. Comparing the "Received 6+" and "Received 4+" rows shows the largest changes in the overall index, caregiver assessment, anxiety, and depression for the 6+ group.

Appendix Figures A2–A4 detail the individual questions forming these indexes. For depression symptoms (Figure A3), we see improvements in feeling tired / low energy and trouble sleeping. For anxiety (Figure A2), we observe declines in feeling afraid for the future. In Figure A4 caregivers also observe improvements in sleep and feeling down as wll as declines in worry. Overall, much of the change stems from respondents moving from reporting a symptom "several days" in a two-week period to "not at all," with smaller reductions for more frequent symptoms. However, for depression, we observe some declines in symptoms reported "more than half the days," including trouble concentrating, feeling tired, and sleep difficulties; caregivers also note a reduction in trouble sleeping and feeling down in these more intense experiences.

Dhar et al. (2022) highlight that interventions might alter social desirability awareness, affecting how individuals report symptoms. Social desirability bias can reduce reported anxiety (Logan et al., 2008), while its relationship with depression is less conclusive (Hoffmann et al., 2024). Because our therapy intervention aims to reduce stigma and enhance self-awareness (Latkin et al., 2017; Prati and Pietrantoni, 2009; Goh et al., 2021; Ferrari et al., 2019), it should make partici-

pants more comfortable reporting distress. If anything, we would expect more frequent, not fewer, reports of poor mental health. We identified six EPOCH survey items (Kern et al., 2016) that resemble Crowne-Marlowe social desirability (SD) questions and classified the sample into above- or below-median SD scores (Crowne and Marlowe, 1960). Appendix Table B6 shows results analogous to Table 2 for these subgroups, and we never reject the hypothesis of equal treatment effects across them.

4.3 Education

Despite the global twin crises in school enrollment and mental health, therapy does not appear to enhance educational outcomes (Figure 2, Appendix Table B8). We utilize three sources of attendance data: subject self-reports (attendance in the past two weeks, missed school days, and overall attendance rate), caregiver-reported attendance rate, and school administrative records (available for a subset). Across all attendance measures, estimated impacts are small and statistically insignificant. For instance, column (1) of Appendix Table B8 yields a 95% confidence interval ranging from a 3 percentage point increase to a 2 percentage point decrease. Relative to the mean attendance rate of 93%, this corresponds roughly to a 3% increase or a 2% decrease. Similar null effects emerge consistently across all five attendance metrics.

We also find no significant effect of therapy on cognitive outcomes, assessed via digit span tests following Barker et al. (2022). Results for the Digit Span Index[6] are illustrated in Figure 2 and detailed in Appendix Table B10. The estimated therapy effect is small, imprecise, and statistically insignificant; for context, the gender gap in this index is 0.27 standard deviations, and estimates of therapy's impact are one-fifth of the gender gap.

4.4 Discussion

Based on existing meta-analyses of talk therapy (Appendix E), we suggest short-run effects arise through improved emotional regulation, relationships, healthier habits, and revised perspectives on

[6]Forward, backward, and ordered digit spans are combined into a single normalized index.

life.[7]

We jointly discuss mechanisms and heterogeneity, as both address how therapy affects mental health. While our PAP prespecified numerous heterogeneity analyses related to schooling (Appendix Table B13), this paper emphasizes the prespecified heterogeneity linked to baseline mental health status. Our baseline mental health flag is defined as the subject having a possible major depressive disorder or anxiety disorder based on Kroenke et al. (2003) and Plummer et al. (2016). We estimate 2SLS regressions, instrumenting therapy take-up and its interaction with baseline mental health, and interacting all strata fixed effects with baseline status (Feigenberg et al., 2023).

Results in Table B13 show larger reductions in psychological distress among those flagged at baseline, aligning with Tolan and Dodge (2005) and existing RCTs targeting symptomatic individuals (Appendix D). Yet, theoretically, it's unclear whether therapy yields higher marginal returns for better or worse baseline mental health.

We observe improved emotional regulation and life perspectives in teens without baseline flags, consistent with psychological literature. Our emotional regulation index includes sharing feelings, coping strategies, stress response, and emotion management; the perspectives index draws on Cantril's ladder, EPOCH items, and future aspirations. Both effects are stronger among more intensively treated subjects without baseline flags.

While emotional regulation and perspectives may enhance relationships indirectly, therapy can also affect relationships directly. Our therapy included parental sessions, and relationship improvements (with parents and friends) mainly occurred among teens with baseline flags. Interestingly, treated individuals reported increased self-perceived bullying, possibly indicating heightened sensitivity to social interactions. Despite this, relationship effects were larger for intensively treated teens with baseline flags.

We find no clear evidence of improvements in healthy habits or attitudes toward mental health overall. Therapy negatively impacted attitudes toward mental health, driven primarily by perceptions of control over one's mental health—potentially reflecting question misinterpretation (null

[7]Although not pre-specified in our PAP, we constructed these indexes before analysis based on psychological literature (definitions in Appendix F; PAP deviations detailed in Appendix G).

effect not rejected). However, therapy positively affected openness to friendship with peers experiencing mental health challenges, aligning with findings in Gulliver et al. (2010).

Inconsistencies associated with baseline mental health flags indicate uncertainty about whether targeting at-risk youths maximizes mental health gains. Given evidence of considerable mean reversion in mental health indicators (Barker et al., 2022) and our own analysis (Appendix Table B15), it is plausible that severe baseline conditions are inherently less responsive. Though we find greater effects on psychological distress for worse-off teens, heterogeneity across mental health dimensions warrants further investigation.

5 Conclusion

Our study demonstrates that, in contexts with limited mental health awareness and weak medical infrastructure, adolescents without prior mental health diagnoses readily engage in talk therapy, resulting in high uptake[8] and measurable mental health improvements. These gains include enhanced emotional regulation and a more positive life outlook. Although these outcomes align with our theoretical expectations regarding short-term therapy effects, evidence for broader lifestyle improvements remains limited.

While observational studies often highlight a positive link between mental health and education (e.g., Murphy et al. (2015); Finning et al. (2019)), and recent research identifies academic challenges as contributing factors to mental health issues (Demange et al., 2024), our results indicate improved mental health does not necessarily translate into increased school participation. This underscores the complexity of the relationship between adolescent mental health and educational engagement, suggesting that addressing mental health alone may not resolve the concurrent global crises of adolescent mental health and school engagement.

Additionally, our analysis shows that adolescents with initially poor mental health experience

[8]This suggests that removing supply-side barriers and subsidizing therapy costs may effectively bridge the adolescent treatment gap, even without additional demand-side interventions. The intervention was delivered by trained personnel at approximately $16 USD per session (see Appendix C), comparable to or lower than similar programs.

the most significant reductions in psychological distress, whereas improvements in emotional regulation and outlook are primarily observed among those without baseline mental health concerns. This highlights the multidimensional nature of mental health and suggests careful consideration in resource allocation. Although recent WHO and UNICEF initiatives (Jakobsson et al., 2024) advocate prioritizing therapy for acutely distressed adolescents, our findings indicate that broader access to therapy could also meaningfully benefit adolescents not initially identified as at-risk.

References

Alan, Sule and Seda Ertac, "Fostering patience in the classroom: Results from randomized educational intervention," *Journal of Political Economy*, 2018, *126* (5), 1865–1911.

_ , Teodora Boneva, and Seda Ertac, "Ever failed, try again, succeed better: Results from a randomized educational intervention on grit," *The Quarterly Journal of Economics*, 2019, *134* (3), 1121–1162.

Amin, Rizwana, Amna Iqbal, Farooq Naeem, and Muhammad Irfan, "Effectiveness of a culturally adapted cognitive behavioural therapy-based guided self-help (CACBT-GSH) intervention to reduce social anxiety and enhance self-esteem in adolescents: a randomized controlled trial from Pakistan," *Behavioural and Cognitive Psychotherapy*, 2020, *48* (5), 503–514.

Angelucci, Manuela and Daniel Bennett, "The economic impact of depression treatment in india: Evidence from community-based provision of pharmacotherapy," *American economic review*, 2024, *114* (1), 169–198.

Ashraf, Nava, Natalie Bau, Corinne Low, and Kathleen McGinn, "Negotiating a better future: How interpersonal skills facilitate intergenerational investment," *The Quarterly Journal of Economics*, 2020, *135* (2), 1095–1151.

Baranov, Victoria, Johannes Haushofer, and Chaning Jang, "Can Positive Psychology Improve Psychological Well-Being and Economic Decision-Making? Experimental Evidence from Kenya," *Economic Development and Cultural Change*, 02 2019, *68*.

Barker, Nathan, Gharad Bryan, Dean Karlan, Angela Ofori-Atta, and Christopher Udry, "Cognitive Behavioral therapy among Ghana's rural poor is effective regardless of baseline mental distress," *American Economic Review: Insights*, 2022, *4* (4), 527–545.

Bharadwaj, Prashant, Mallesh M. Pai, and Agne Suziedelyte, "Mental health stigma," *Economics Letters*, 2017, *159*, 57–60.

Blattman, Christopher, Julian C. Jamison, and Margaret Sheridan, "Reducing Crime and Violence: Experimental Evidence from Cognitive Behavioral Therapy in Liberia," *American Economic Review*, April 2017, *107* (4), 1165–1206.

Brown, Bradford B. and Reed W. Larson, "Peer relationships in adolescence," in Richard M. Lerner and Laurence Steinberg, eds., *Handbook of Adolescent Psychology*, Wiley, 2009, pp. 74–103.

Casares, María Ángeles, Adriana Díez-Gómez, Alicia Pérez-Albéniz, Beatriz Lucas-Molina, and Eduardo Fonseca-Pedrero, "Screening for anxiety in adolescents: Validation of the Generalized Anxiety Disorder Assessment-7 in a representative sample of adolescents," *Journal of Affective Disorders*, 2024.

Charkhandeh, Mansoureh, Mansor Abu Talib, and Caroline Jane Hunt, "The clinical effectiveness of cognitive behavior therapy and an alternative medicine approach in reducing symptoms of depression in adolescents," *Psychiatry Research*, 2016, *239*, 325–330.

Colizzi, Marco, Antonio Lasalvia, and Mirella Ruggeri, "Prevention and early intervention in youth mental health: is it time for a multidisciplinary and trans-diagnostic model for care?," *International journal of mental health systems*, 2020, *14*, 1–14.

Crowne, Douglas P and David Marlowe, "A new scale of social desirability independent of psychopathology.," *Journal of consulting psychology*, 1960, *24* (4), 349.

Dalforno, Ryan W, Hadassah I Wengert, Loan Pham Kim, and Kathryn H Jacobsen, "Anxiety and school absenteeism without permission among adolescents in 69 low-and middle-income countries," *Dialogues in Health*, 2022, *1*, 100046.

Demange, Perline A, Dorret I Boomsma, Elsje van Bergen, and Michel G Nivard, "Evaluating the causal relationship between educational attainment and mental health," *medRxiv*, 2024, pp. 2023–01.

Dhar, Diva, Tarun Jain, and Seema Jayachandran, "Reshaping adolescents' gender attitudes: Evidence from a school-based experiment in India," *American economic review*, 2022, *112* (3), 899–927.

Dinkelman, Taryn and Claudia Martínez A, "Investing in schooling in Chile: The role of information about financial aid for higher education," *Review of Economics and Statistics*, 2014, *96* (2), 244–257.

Edmonds, Eric, Ben Feigenberg, and Jessica Leight, "Advancing the agency of adolescent girls," *Review of Economics and Statistics*, 2023, *105* (4), 852–866.

Faye, M.Sc Plummer, M.D. M.Sc. M.R.C.Psych Manea Laura, Ph.D Trepel Dominic, and M.A. Ph.D. D.Clin.Psy McMillan Dean, "Screening for anxiety disorders with the GAD-7 and GAD-2: a systematic review and diagnostic metaanalysis," *General hospital psychiatry*, 2016, *39*, 24–31.

Feigenberg, Benjamin, Ben Ost, and Javaeria A Qureshi, "Omitted variable bias in interacted models: A cautionary tale," *Review of Economics and Statistics*, 2023, pp. 1–47.

Ferrari, Madeleine, Caroline Hunt, Ashish Harrysunker, Maree J Abbott, Alissa P Beath, and Danielle A Einstein, "Self-compassion interventions and psychosocial outcomes: A meta-analysis of RCTs," *Mindfulness*, 2019, *10*, 1455–1473.

Finning, Katie, Obioha C. Ukoumunne, Tamsin Ford, Emilia Danielson-Waters, Liz Shaw, Ingrid Romero De Jager, Lauren Stentiford, and Darren A. Moore, "Review: The association between anxiety and poor attendance at school – a systematic review," *Child and Adolescent Mental Health*, 2019, *24* (3), 205–216.

Gillham, Jane E, Karen J Reivich, Derek R Freres, Tara M Chaplin, Andrew J Shatté, Barbra Samuels, Andrea GL Elkon, Samantha Litzinger, Marisa Lascher, Robert Gallop et al., "School-based prevention of depressive symptoms: A randomized controlled study of the effectiveness and specificity of the Penn Resiliency Program.," *Journal of consulting and clinical psychology*, 2007, *75* (1), 9.

Goh, Yong-Shian, Qing Yun Jenna Ow Yong, and Wai-San Wilson Tam, "Effects of online stigma-reduction programme for people experiencing mental health conditions: A systematic review and meta-analysis," *International journal of mental health nursing*, 2021, *30* (5), 1040–1056.

Gulliver, Amelia, Kathleen M Griffiths, and Helen Christensen, "Perceived barriers and facilitators to mental health help-seeking in young people: a systematic review," *BMC psychiatry*, 2010, *10*, 1–9.

Hodgkinson, Stacy, Leandra Godoy, Lee Savio Beers, and Amy Lewin, "Improving mental health access for low-income children and families in the primary care setting," *Pediatrics*, 2017, *139* (1).

Hoffmann, Janina A, Catherine Hobbs, Michael Moutoussis, and Katherine S Button, "Lack of optimistic bias during social evaluation learning reflects reduced positive self-beliefs in depression and social anxiety, but via distinct mechanisms," *Scientific Reports*, 2024, *14* (1), 22471.

Jaberghaderi, N., M. Rezaei, M. Kolivand, and A. Shokoohi, "Effectiveness of Cognitive Behavioral Therapy and Eye Movement Desensitization and Reprocessing in Child Victims of Domestic Violence," *Iran J Psychiatry*, 2019, *14* (1), 67–75.

Jakobsson, Cecilia, Rhea Sanghavi, Joseph Nyamiobo, Caitlin Maloy, Arnold Mwanzu, Katherine Venturo-Conerly, Cyprian Mostert, Stefan Peterson, and Manasi Kumar, "Adolescent and youth-friendly health interventions in low-income and middle-income countries: a scoping review," *BMJ global health*, 2024, *9* (9).

Jensen, Robert, "The (perceived) returns to education and the demand for schooling," *The Quarterly Journal of Economics*, 2010, *125* (2), 515–548.

Kaminer, D., C. Simmons, S. Seedat, S. Skavenski, L. Murray, M. Kidd, and J. A. Cohen, "Effectiveness of abbreviated trauma-focused cognitive behavioural therapy for South African adolescents: a randomized controlled trial," *European journal of psychotraumatology*, 2023, *14* (1), 2181602.

Kane, Jeremy C., Caleb Figge, Alejandra Paniagua-Avila, Susan Michaels-Strasser, Christopher Akiba, Mwamba Mwenge, Saphira Munthali, Paul Bolton, Stephanie Skavenski, Ravi Paul, Francis Simenda, Kathryn Whetten, Judith Cohen, Kristina Metz, and Laura K. Murray, "Effectiveness of trauma-focused cognitive behavioral therapy compared to psychosocial counseling in reducing HIV risk behaviors, substance use, and mental health problems among orphans and vulnerable children in Zambia: A community-based randomized controlled trial," *AIDS and Behavior*, 2024, *28* (1), 245–263.

Keehn, Rebecca H McNally, Alan J Lincoln, Milton Z Brown, and Denise A Chavira, "The Coping Cat program for children with anxiety and autism spectrum disorder: A pilot randomized controlled trial," *Journal of autism and developmental disorders*, 2013, *43*, 57–67.

Kern, Margaret L, Lizbeth Benson, Elizabeth A Steinberg, and Laurence Steinberg, "The EPOCH measure of adolescent well-being.," *Psychological assessment*, 2016, *28* (5), 586.

Kroenke, Kurt, Robert L. Spitzer, and Janet B. W. Williams, "The Patient Health Questionnaire-2: Validity of a Two-Item Depression Screener," *Medical care*, 2003, *41* (11), 1284–1292.

Kumuyi, D. O., E. O. Akinnawo, B. C. Akpunne, A. A. Akintola, D. F. Onisile, and O. O. Aniemeka, "Effectiveness of cognitive behavioural therapy and social skills training in management of conduct disorder," *South African Journal of Psychiatry*, 2022, *28.* Export Date: 28 October 2024; Cited By: 2.

Latkin, Carl A, Catie Edwards, Melissa A Davey-Rothwell, and Karin E Tobin, "The relationship between social desirability bias and self-reports of health, substance use, and social network factors among urban substance users in Baltimore, Maryland," *Addictive behaviors*, 2017, *73*, 133–136.

Leichsenring, Falk, Sven Rabung, and Eric Leibing, "The efficacy of short-term psychodynamic psychotherapy in specificpsychiatric disorders: a meta-analysis," *Archives of general psychiatry*, 2004, *61* (12), 1208–1216.

Logan, Deirdre E, Robyn Lewis Claar, and Lisa Scharff, "Social desirability response bias and self-report of psychological distress in pediatric chronic pain patients," *Pain*, 2008, *136* (3), 366–372.

López-Torres, Stephanie, Coralee Pérez-Pedrogo, Israel Sánchez-Cardona, and Marizaida Sánchez-Cesáreo, "Psychometric properties of the PHQ-A among a sample of children and adolescents in Puerto Rico," *Current Psychology*, 2019, pp. 1–9.

Lund, Crick, Kate Orkin, Marc Witte, John H Walker, Thandi Davies, Johannes Haushofer, Sarah Murray, Judy Bass, Laura Murray, Wietse Tol et al., "The Effects of Mental Health Interventions on Labor Market Outcomes in Low-and Middle-Income Countries," Technical Report, National Bureau of Economic Research 2024.

Maynard, Brandy R, David Heyne, Kristen Esposito Brendel, Jeffery J Bulanda, Aaron M Thompson, and Terri D Pigott, "Treatment for school refusal among children and adolescents: A systematic review and meta-analysis," *Research on Social Work Practice*, 2018, *28* (1), 56–67.

Miri, S. F., M. Javadi, C. Y. Lin, M. D. Griffiths, M. Björk, and A. H. Pakpour, "Effectiveness of cognitive-behavioral therapy on nutrition improvement and weight of overweight and obese adolescents: A randomized controlled trial," *Diabetes Metabolic Syndrome-Clinical Research Reviews*, 2019, *13* (3), 2190–2197. Miri, Seyedeh Fatemeh Javadi, Maryam Lin, Chung-Ying Griffiths, Mark D. Bjork, Maria Pakpour, Amir H. Björk, Maria/K-5821-2013; Javadi, Maryam/HPG-6494-2023; P, Amir/C-6160-2014; Griffiths, Mark/AAY-3546-2021; Lin, Chung-Ying/I-5434-2016 Pakpour, Amir/0000-0002-8798-5345; Lin, Chung-Ying/0000-0002-2129-4242 1878-0334.

Murphy, J Michael, Javier Guzmán, Alyssa E McCarthy, Ana María Squicciarini, Myriam George, Katia M Canenguez, Erin C Dunn, Lee Baer, Ariela Simonsohn, Jordan W Smoller et al., "Mental health predicts better academic outcomes: A longitudinal study of elementary school students in Chile," *Child Psychiatry & Human Development*, 2015, *46*, 245–256.

Murray, L. K., S. Skavenski, J. C. Kane, J. Mayeya, S. Dorsey, J. A. Cohen, L. T. M. Michalopoulos, M. Imasiku, and P. A. Bolton, "Effectiveness of trauma-focused cognitive behavioral therapy among trauma-affected children in Lusaka, Zambia: A randomized clinical trial," *JAMA Pediatrics*, 2015, *169* (8), 761–769. Export Date: 28 October 2024; Cited By: 156.

Patel, Vikram, Shekhar Saxena, Crick Lund, Graham Thornicroft, Florence Baingana, Paul Bolton, Dan Chisholm, Pamela Y Collins, Janice L Cooper, Julian Eaton et al., "The Lancet Commission on global mental health and sustainable development," *The lancet*, 2018, *392* (10157), 1553–1598.

Prati, Gabriele and Luca Pietrantoni, "Optimism, social support, and coping strategies as factors contributing to posttraumatic growth: A meta-analysis," *Journal of loss and trauma*, 2009, *14* (5), 364–388.

Rai, Yugesh, Deoman Gurung, and Kamal Gautam, "Insight and challenges: mental health services in Nepal," *BJPsych International*, 2021, *18* (2), E5.

Ridley, Matthew, Gautam Rao, Frank Schilbach, and Vikram Patel, "Poverty, depression, and anxiety: Causal evidence and mechanisms," *Science*, 2020, *370* (6522), eaay0214.

Rossouw, Jaco, Elna Yadin, Debra Alexander, and Soraya Seedat, "Prolonged exposure therapy and supportive counselling for post-traumatic stress disorder in adolescents: task-shifting randomised controlled trial," *British Journal of Psychiatry*, 2018, *213* (4), 587–594. ObjectType-Article-2.

Shah, Manisha, Sarah Baird, Jennifer Seager, Benjamin Avuwadah, Joan Hamory, Shwetlena Sabarwal, and Amita Vyas, "Improving Mental Health of Adolescent Girls in Low-and Middle-Income Countries: Causal Evidence from Life Skills Programming," *Journal of Human Resources*, 2024, *59* (S), S317–S364.

Shein-Szydlo, J., D. G. Sukhodolsky, D. S. Kon, M. M. Tejeda, E. Ramirez, and V. Ruchkin, "A Randomized Controlled Study of Cognitive-Behavioral Therapy for Posttraumatic Stress in Street Children in Mexico City," *Journal of traumatic stress*, 2016, *29* (5), 406-414.

Shortt, Alison L, Paula M Barrett, and Tara L Fox, "Evaluating the FRIENDS program: A cognitive-behavioral group treatment for anxious children and their parents," *Journal of clinical child psychology*, 2001, *30* (4), 525–535.

Smetana, Judith G., Nicole Campione-Barr, and Aaron Metzger, "Adolescents' and parents' conceptions of parental authority and autonomy," *Child Development*, 2005, *76* (4), 887–900.

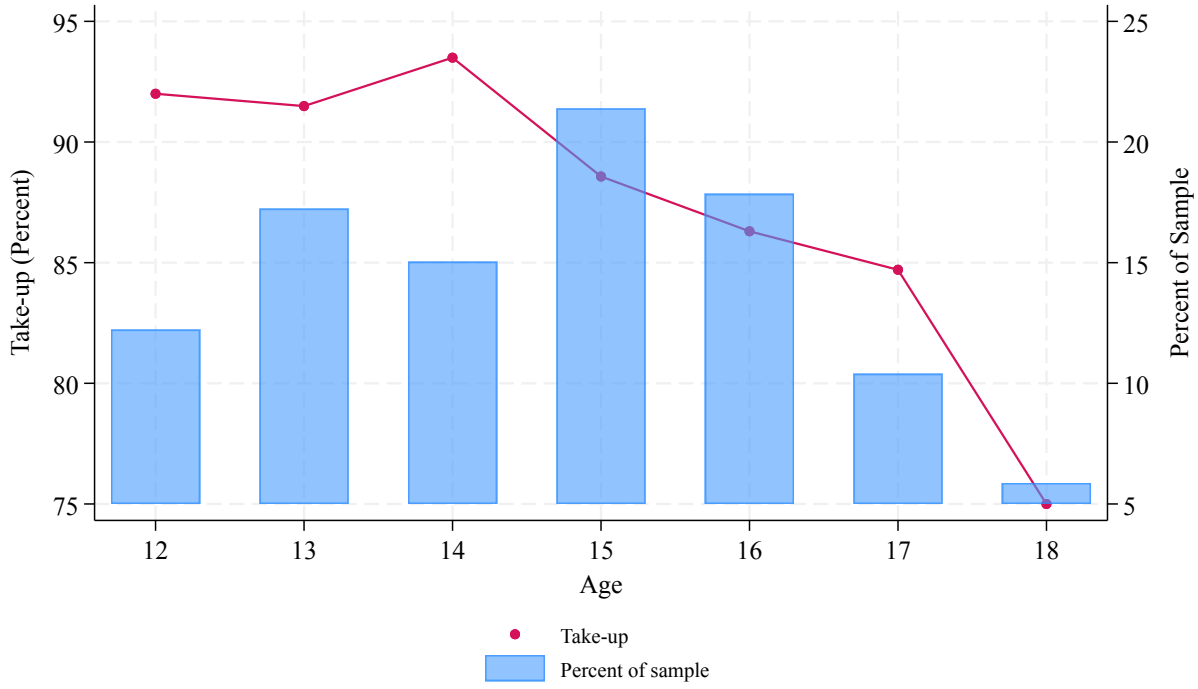
Steinberg, Laurence and Susan B. Silverberg, "The vicissitudes of autonomy in early adolescence," *Child Development*, 1986, *57* (4), 841–851.

Tolan, Patrick H and Kenneth A Dodge, "Children's mental health as a primary care and concern: a system for comprehensive support and service.," *American Psychologist*, 2005, *60* (6), 601.

Twenge, Jean and David G Blanchflower, "Declining Life Satisfaction and Happiness Among Young Adults in Six English-speaking Countries," Technical Report, National Bureau of Economic Research 2025.

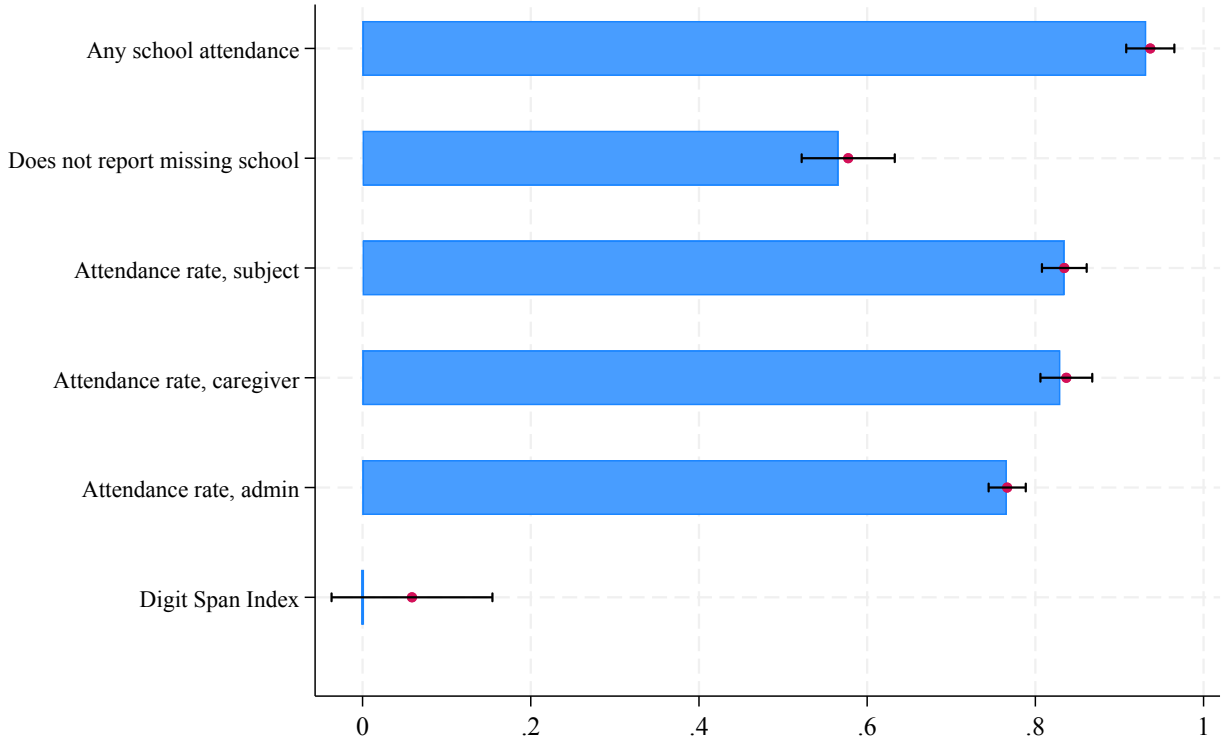
Yoshimura, Shinpei, Yasumasa Okamoto, Keiichi Onoda, Miki Matsunaga, Go Okada, Yoshihiko Kunisato, Atsuo Yoshino, Kazutaka Ueda, Shin ichi Suzuki, and Shigeto Yamawaki, "Cognitive behavioral therapy for depression changes medial prefrontal and ventral anterior cingulate cortex activity associated with self-referential processing," *Social cognitive and affective neuroscience*, 2014, *9* (4), 487–493.

Figure 1: TAKE-UP AND TREATMENT SAMPLE COMPOSITION BY AGE



Notes: The sample includes 818 participants assigned to either therapy arm with endline consent. Each bar represents the percentage of the sample at a given age, while each point plots the percentage of subjects who took up therapy at that age. Age refers to the adolescent's age in school records collected in November 2021.

Figure 2: IMPACT OF THERAPY ON SCHOOL ATTENDANCE AND DIGIT SPAN COGNITIVE TEST, 2SLS



Notes: Each point represents the 2SLS estimate of randomization-induced therapy effects from Equation 1, with 95% confidence intervals. Therapy take-up is instrumented using random assignment. Bars indicate the control group mean at endline for each dependent variable. The sample includes 1,635 participants with endline consent and nonmissing observations for each dependent variable. There are two missing responses for does not report missing school and eight missing responses for subject-reported attendance rate due to non-responses. The digit span index test is available only for in-person surveys (N=1,540). The administrative attendance rate is available for 1,048 respondents, while the caregiver-reported attendance rate is available for 1,507 respondents due to increased caregiver response rates for education-related measures. All regressions include strata fixed effects and robust standard errors. Reduced form estimates are presented in Appendix Table B7 for attendance measures and Appendix Table B9 for the Digit Span index.

Table 1: THERAPY TAKE-UP BY TREATMENT STATUS (FIRST STAGE REGRESSIONS)

	Admin records					*Endline Survey*	
	Received Therapy		6+ sessions	4+ sessions	Number of sessions	Therapy Experience	
Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Assigned to any therapy arm	0.889					0.402	
	(0.011)					(0.021)	
Assigned to therapy-		0.877	0.352	0.822	4.338		0.520
		(0.016)	(0.023)	(0.019)	(0.093)		(0.028)
Assigned to nudge		-0.001	-0.003	0.000	-0.010		0.264
		(0.005)	(0.009)	(0.006)	(0.032)		(0.028)
Assigned to therapy+		0.899	0.355	0.845	4.460		0.546
		(0.014)	(0.023)	(0.018)	(0.086)		(0.027)
Control group mean	0.000	0.000	0.000	0.000	0.000	0.131	0.131

Notes: This table reports the impact of treatment assignment on student therapy receipt. "Therapy-" indicates the therapy treatment arm without the educational nudge, "Therapy+" represents the arm with therapy and the educational nudge. Columns 1–5 present results based on administrative records, while Columns 6–7 use endline survey data. In Columns 1 and 6, treatment assignment is defined as randomization into any therapy arm (therapy- and therapy+ pooled), while the remaining columns include separate indicators for each arm. The sample consists of students with endline consent (N=1,635). All regressions include strata fixed effects, and robust standard errors are shown in parentheses.

Table 2: IMPACT OF THERAPY ON MENTAL HEALTH RELATED OUTCOMES (2SLS)

Variable	Psychological distress index (1)	Anxiety index (2)	Depression index (3)	Caregiver distress assessment index (4)
Received therapy (Admin)	-0.156	-0.081	-0.103	-0.188
	(0.057)	(0.053)	(0.051)	(0.058)
Received 6+ therapy sessions	-0.387	-0.204	-0.256	-0.466
	(0.140)	(0.134)	(0.125)	(0.144)
Received 4+ therapy sessions	-0.166	-0.086	-0.110	-0.200
	(0.060)	(0.056)	(0.054)	(0.061)
Number of therapy sessions	-0.031	-0.016	-0.021	-0.038
	(0.011)	(0.011)	(0.010)	(0.012)
Observations	1488	1635	1635	1488

Notes: Each column reports the coefficient from the 2SLS estimate of the randomization-induced therapy effect. Therapy take-up (or treatment intensity) is instrumented using random assignment. The sample consists of students with endline consent (N=1,635). For Columns 1 and 4, we are missing caregiver responses for 147 subjects that were not at home during the endline survey. Reduced form estimates are presented in Appendix Table B3. First Stage for row 1 is column 2 of Table 1. First stage for row 2 is column 3, row 3 is column 4, and row 4 is column 5 of Table 1. Therapy- vs. control estimates are in Appendix Table B4. Therapy+ and Therapy- pooled results are in Appendix Table B5. Robust standard errors are shown in parentheses. All regressions include strata fixed effects.

Table 3: HETEROGENEITY - MENTAL HEALTH FLAG AT BASELINE

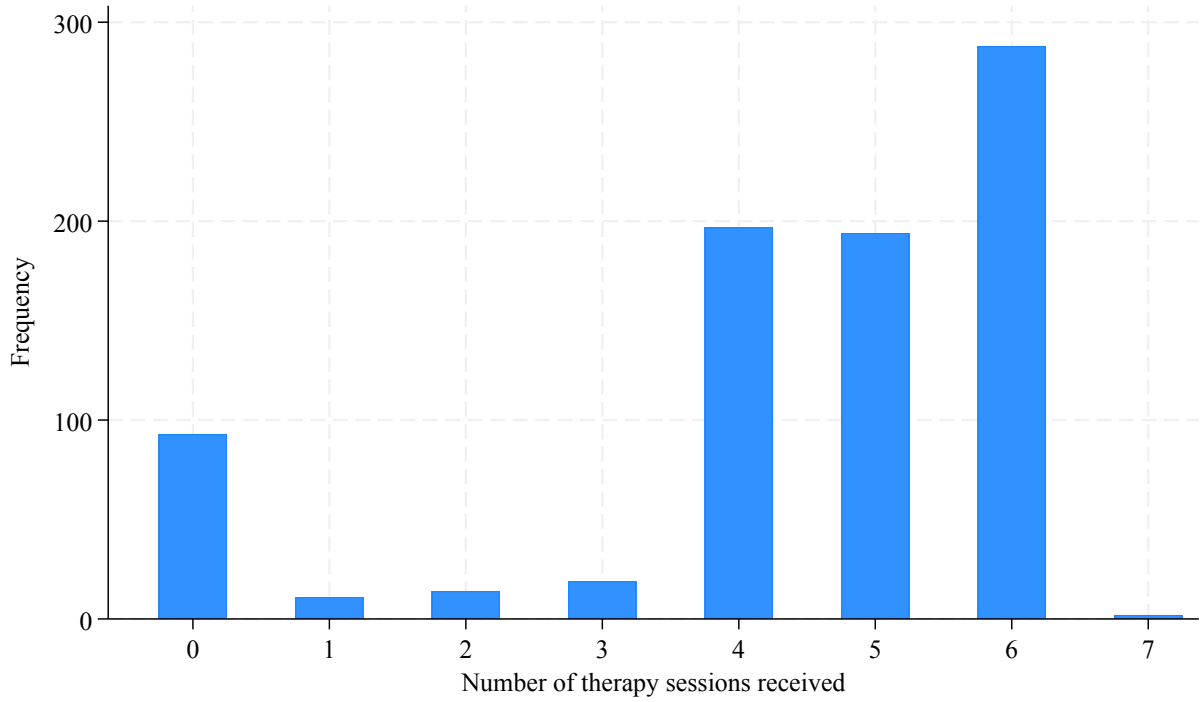
Variable	Psychological distress (1)	Any school attendance (2)	Emotional skills (3)	Relationship to parents (4)	Relationship to classmates (5)	Healthier habits (6)	Perspective on life (7)	Mental health attitudes (8)
Received therapy	-0.082	-0.022	0.201	-0.083	0.012	0.030	0.088	-0.099
	(0.079)	(0.021)	(0.088)	(0.079)	(0.056)	(0.070)	(0.078)	(0.065)
Received therapy * MH flag	-0.132	0.027	-0.102	0.234	0.102	0.014	-0.060	-0.047
	(0.138)	(0.034)	(0.122)	(0.164)	(0.134)	(0.127)	(0.137)	(0.120)
6+ sessions	-0.187	-0.054	0.453	-0.155	0.016	0.089	0.187	-0.258
	(0.175)	(0.048)	(0.189)	(0.185)	(0.125)	(0.154)	(0.173)	(0.147)
6+ sessions * MH flag	-0.430	0.055	-0.027	0.406	0.346	0.066	-0.054	0.028
	(0.339)	(0.086)	(0.276)	(0.392)	(0.336)	(0.305)	(0.302)	(0.293)
4+ sessions	-0.086	-0.022	0.210	-0.092	0.015	0.028	0.094	-0.097
	(0.083)	(0.022)	(0.094)	(0.083)	(0.059)	(0.075)	(0.083)	(0.069)
4+ sessions * MH flag	-0.142	0.028	-0.103	0.249	0.107	0.020	-0.064	-0.054
	(0.146)	(0.035)	(0.129)	(0.173)	(0.141)	(0.135)	(0.144)	(0.126)
Number	-0.016	-0.004	0.040	-0.016	0.002	0.006	0.018	-0.020
	(0.016)	(0.004)	(0.018)	(0.016)	(0.011)	(0.014)	(0.016)	(0.013)
Number * MH flag	-0.028	0.005	-0.018	0.045	0.022	0.004	-0.011	-0.008
	(0.028)	(0.007)	(0.024)	(0.033)	(0.027)	(0.026)	(0.027)	(0.024)
Observations	954	1033	979	954	979	979	979	1033

Notes: Each column reports the coefficient from the 2SLS estimate of the randomization-induced therapy effect and the coefficient on its interaction with the baseline mental health flag. Therapy take-up (or treatment intensity) and its interaction with baseline mental health are instrumented using random assignment and the interaction of random assignment with baseline mental health. The sample consists of students with both endline and baseline consent (N=1,033). Indexes with components not asked in the endline student phone survey have a reduced sample of 979 (Columns 3 and 5-7), while indexes incorporating caregiver responses have a reduced sample of 954 (Columns 1 and 4). Robust standard errors are shown in parentheses. All regressions include strata fixed effects fully interacted with the baseline mental health flag.

On-Line Appendices for Talk Therapy and Human Capital in Adolescence

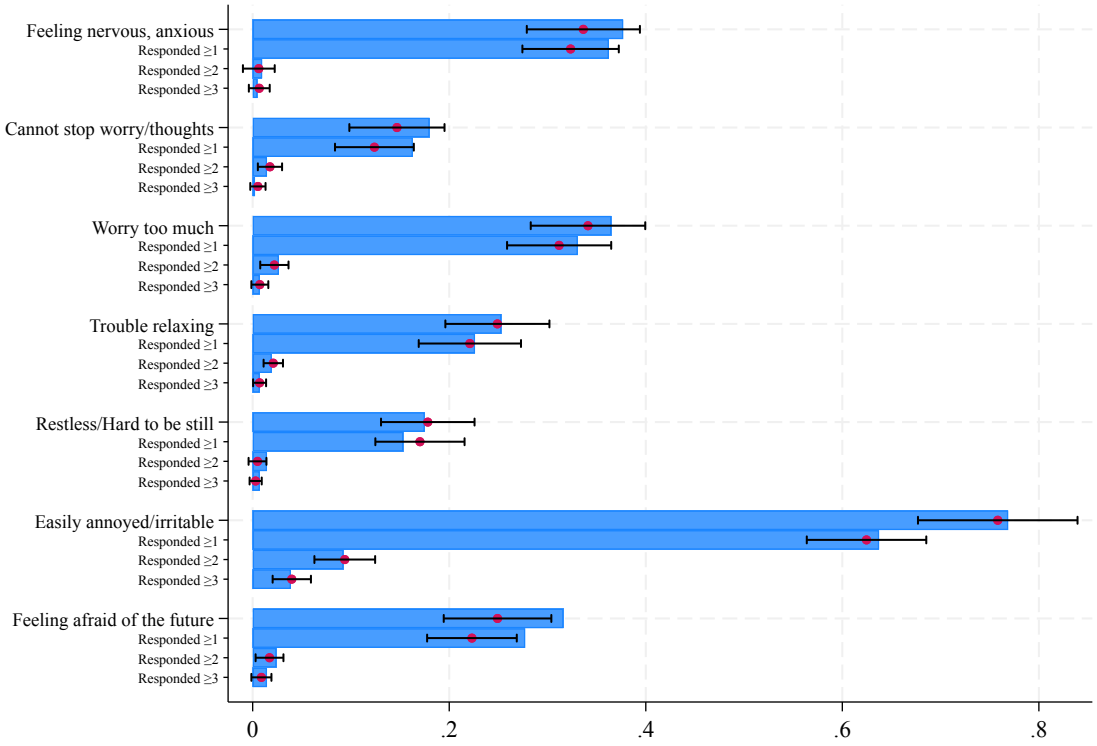
A Appendix Figures

Figure A1: NUMBER OF THERAPY SESSIONS RECEIVED



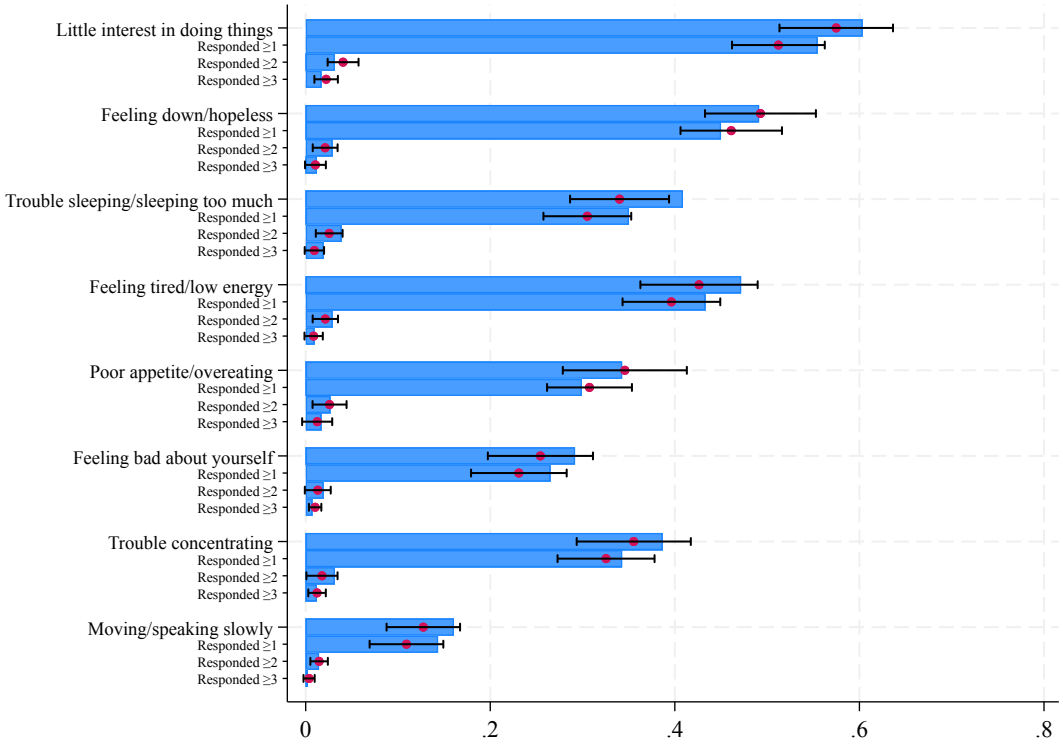
Notes: Each bar represents the number of individuals, among those assigned to either therapy arm (N=818), who received the corresponding number of sessions. Data are based on CMC's administrative records.

Figure A2: EFFECTS ON COMPONENTS OF ANXIETY INDEX



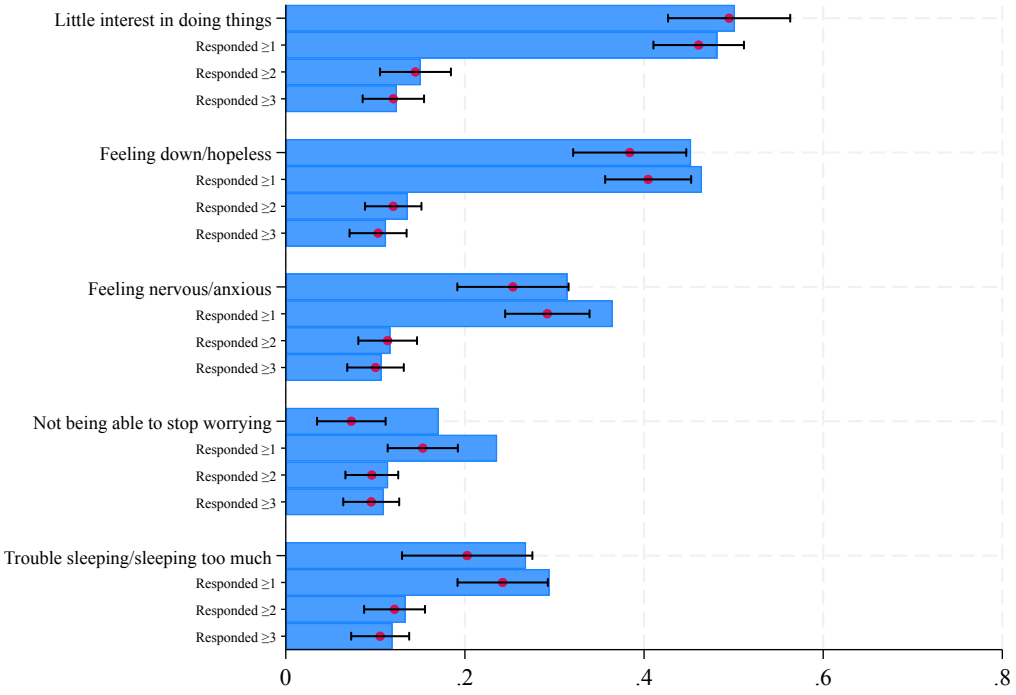
Notes: For each question, the bar represents the control group mean. The coefficient and 95% confidence interval is from estimating β_1 in the 2SLS estimate of equation 1. For each question, the survey asks the respondent how frequently they feel as described in the statement in the last two weeks with responses not at all (0), several days (1), more than half the days (2), nearly every day (3). In the first row, next to the question statement, we report results with this scale treated as a continuous variable. In the second row, the dependent variable in 2 is an indicator that the response was several days or greater. The third row is more than half days or greater. The fourth row is nearly every day.

Figure A3: EFFECTS ON COMPONENTS OF DEPRESSION INDEX



Notes: For each question, the bar represents the control group mean. The coefficient and 95% confidence interval is from estimating β_1 in the 2SLS estimate of equation 1. For each question, the survey asks the respondent how frequently they feel as described in the statement in the last two weeks with responses not at all (0), several days (1), more than half the days (2), nearly every day (3). In the first row, next to the question statement, we report results with this scale treated as a continuous variable. In the second row, the dependent variable in 2 is an indicator that the response was several days or greater. The third row is more than half days or greater. The fourth row is nearly every day.

Figure A4: EFFECTS ON COMPONENTS OF CAREGIVER DISTRESS ASSESSMENT INDEX



Notes: For each question, the bar represents the control group mean. The coefficient and 95% confidence interval is from estimating β_1 in the 2SLS estimate of equation 1. For each question, the survey asks the caregiver's impression of how frequently the subject feels as described in the statement in the last two weeks with responses not at all (0), several days (1), more than half the days (2), nearly every day (3). In the first row, next to the question statement, we report results with this scale treated as a continuous variable. In the second row, the dependent variable in 2 is an indicator that the response was several days or greater. The third row is more than half days or greater. The fourth row is nearly every day.

B Appendix Tables

Table B1: STUDY POPULATION CHARACTERISTICS

Variable	Sample Mean (Targeted) (1)	Sample Mean (Consented) (2)	Control Mean (3)	Therapy- Mean (4)	Nudge Mean (5)	Therapy+ Mean (6)	F-Stat (p-value) (7)
Female	0.477	0.480	0.487	0.493	0.483	0.483	0.036
	(0.500)	(0.500)	(0.500)	(0.501)	(0.500)	(0.500)	(0.991)
Age	14.725	14.719	14.674	14.724	14.692	14.676	0.075
	(1.696)	(1.700)	(1.665)	(1.726)	(1.665)	(1.727)	(0.973)
High dropout-risk	0.315	0.305	0.302	0.305	0.305	0.299	0.017
	(0.465)	(0.461)	(0.460)	(0.461)	(0.461)	(0.458)	(0.997)
Medium dropout-risk	0.532	0.541	0.547	0.532	0.544	0.547	0.088
	(0.499)	(0.498)	(0.498)	(0.500)	(0.499)	(0.498)	(0.967)
Current grade	8.602	8.602	8.537	8.647	8.582	8.624	0.437
	(1.472)	(1.476)	(1.493)	(1.455)	(1.430)	(1.512)	(0.727)
Behind grade-for-age	0.119	0.118	0.131	0.098	0.127	0.094	1.465
	(0.324)	(0.322)	(0.337)	(0.298)	(0.333)	(0.292)	(0.222)
Completed baseline	0.620	0.647	0.645	0.622	0.653	0.608	0.743
	(0.486)	(0.478)	(0.479)	(0.485)	(0.477)	(0.489)	(0.526)
Completed endline	0.917	0.958					
	(0.276)	(0.201)					
Completed both surveys	0.579	0.605	0.645	0.622	0.653	0.608	0.743
	(0.494)	(0.489)	(0.479)	(0.485)	(0.477)	(0.489)	(0.526)
Observations	1783	1707	411	410	406	408	

Notes: Column 1 reports the mean of each variable for the students originally targeted for the study, and Column 2 reports the mean for the students who ever consented to the study. Columns 3-6 report the means of each variable for the control, therapy- (T1), education nudge (T2), and therapy + education nudge (T3) groups, respectively. Standard deviations are shown in parentheses. Column 7 reports the F-statistic and its associated p-value (in parentheses) for the null hypothesis that treatment status does not predict each individual outcome variable, using robust standard errors. The sample for Columns 3-7 is limited to students with consent at endline (N=1,635). A Seemingly Unrelated Regression (SUR) test was conducted for the regressions in Column 7 (excluding variables on survey completion). The chi-squared statistic is 6.88 (p-value = 0.991). The sample for the SUR test is reduced to 1,620 observations after dropping 15 students that have missing data on their current grade.

Table B2: COMPLIERS V. NONCOMPLIERS

Variable	Mean compliers (1)	Mean noncompliers (2)	Received therapy (3)	6+ sessions (4)	4+ sessions (5)	Number of sessions (6)
Female	0.491	0.462	0.029	0.019	0.051	0.007
	(0.500)	(0.501)	(0.055)	(0.037)	(0.047)	(0.009)
Age	14.626	15.280	-0.653	-0.663	-0.754	-0.193
	(1.701)	(1.808)	(0.197)	(0.120)	(0.162)	(0.032)
High dropout-risk	0.291	0.387	-0.096	-0.121	-0.128	-0.027
	(0.455)	(0.490)	(0.053)	(0.032)	(0.045)	(0.009)
Medium dropout-risk	0.548	0.473	0.074	-0.023	0.122	0.010
	(0.498)	(0.502)	(0.055)	(0.037)	(0.047)	(0.009)
Current grade	8.580	9.077	-0.497	-0.474	-0.570	-0.142
	(1.477)	(1.462)	(0.162)	(0.105)	(0.133)	(0.027)
Behind-grade-for-age	0.098	0.077	0.022	-0.052	0.009	-0.004
	(0.298)	(0.268)	(0.030)	(0.020)	(0.027)	(0.005)
Joint significance test			3.015	12.027	6.242	8.949
			(0.006)	(0.000)	(0.000)	(0.000)
Observations	725	93	818	818	818	818

Notes: The sample for this table is restricted to subjects in either therapy treatment arm (therapy- or therapy+, that is, those that received any therapy) with endline consent (N=818). Behind-grade-for-age is missing six observations due to missing current grade data. Columns 1-2 report the mean for compliers and noncompliers, defined as having received any therapy according to administrative records. Standard deviations are shown in parentheses. Columns 3-6 report the output of the null hypothesis that therapy take-up does not predict each individual outcome variable, for receiving any therapy, 6+ sessions, 4+ sessions and the number of sessions, respectively, as compliance indicators. Therapists decided whether to offer additional sessions after four had been completed, and subjects could accept or decline. Among 818 subjects offered therapy, 484 received more than four sessions. Column 6 contains the results of regressing each characteristic on the number of completed sessions. Robust standard errors are shown in parentheses. The joint significance test reports the F-statistic and its associated p-value (in parentheses) for the null hypothesis that all background characteristics predict therapy take-up.

Table B3: MENTAL HEALTH RELATED OUTCOMES (REDUCED FORM - OLS)

Variable	Psychological distress index (1)	Anxiety index (2)	Depression index (3)	Caregiver distress assessment index (4)
Assigned to therapy-	-0.125	-0.054	-0.072	-0.168
	(0.071)	(0.068)	(0.067)	(0.068)
Assigned to nudge	0.029	0.054	-0.008	0.003
	(0.076)	(0.070)	(0.068)	(0.078)
Assigned to therapy+	-0.127	-0.036	-0.118	-0.168
	(0.071)	(0.067)	(0.065)	(0.070)
F-stat for therapy-=therapy+	0.001	0.072	0.494	0.000
	(0.979)	(0.789)	(0.482)	(0.998)
Observations	1488	1635	1635	1488

Notes: This table presents the reduced form estimates of therapy's effect on mental health outcomes. Robust standard errors are shown in parentheses. All regressions include strata fixed effects. The sample consists of students with endline consent (N=1,635). We are missing caregiver responses for 147 subjects that were not at home during their endline survey. The test that therapy-=therapy+ reports the F-statistic and its associated p-value (in parentheses) for the null hypothesis that the coefficients on therapy- and therapy+ are equal. A Seemingly Unrelated Regression (SUR) test was conducted for all regressions in the table. For the null hypothesis that therapy- equals therapy+ across all regressions, the chi-squared statistic is 2.85 (p-value=0.584). For the null hypothesis that the nudge coefficients are jointly zero across all regressions, the chi-squared statistic is 2.04 (p-value=0.729).

Table B4: MENTAL HEALTH RELATED OUTCOMES, RESTRICTED TO THERAPY- AND CONTROL

Variable	Psychological distress index (1)	Anxiety index (2)	Depression index (3)	Caregiver distress assessment index (4)
Reduced Form - OLS				
Assigned to therapy-	-0.137	-0.061	-0.080	-0.174
	(0.072)	(0.068)	(0.068)	(0.069)
2SLS				
Received therapy (Admin)	-0.153	-0.070	-0.091	-0.194
	(0.087)	(0.082)	(0.076)	(0.074)
Received 6+ therapy sessions	-0.376	-0.172	-0.225	-0.476
	(0.210)	(0.202)	(0.184)	(0.180)
Received 4+ therapy sessions	-0.163	-0.074	-0.097	-0.207
	(0.093)	(0.088)	(0.081)	(0.078)
Number of therapy sessions	-0.031	-0.014	-0.018	-0.039
	(0.017)	(0.017)	(0.015)	(0.015)
Observations	738	821	821	738

Notes: The sample for these regressions is limited to subjects assigned to therapy- and the control group with endline consent (N=821). This table presents both reduced form and 2SLS estimates of the effect of therapy on mental health outcomes. For 2SLS, therapy take-up and treatment intensity are instrumented using random assignment. Columns 1 and 4 are missing 83 responses of caregivers that were not home during the endline survey. Robust standard errors are shown in parentheses. All regressions include strata fixed effects.

Table B5: MENTAL HEALTH RELATED OUTCOMES, USING ASSIGNMENT TO ANY THERAPY

Variable	Psychological distress index (1)	Anxiety index (2)	Depression index (3)	Caregiver distress assessment index (4)
Reduced Form - OLS				
Assigned to any therapy	-0.140	-0.072	-0.091	-0.169
	(0.052)	(0.048)	(0.047)	(0.051)
2SLS				
Received therapy (Admin)	-0.156	-0.081	-0.102	-0.188
	(0.057)	(0.053)	(0.051)	(0.058)
Received 6+ therapy sessions	-0.386	-0.203	-0.256	-0.466
	(0.140)	(0.134)	(0.125)	(0.144)
Received 4+ therapy sessions	-0.165	-0.086	-0.109	-0.200
	(0.060)	(0.057)	(0.054)	(0.061)
Number of therapy sessions	-0.031	-0.016	-0.021	-0.038
	(0.011)	(0.011)	(0.010)	(0.011)
Observations	1488	1635	1635	1488

Notes: The sample for these regressions include subjects with endline consent (N=1,635). For Columns 1 and 4, we are missing caregiver responses for 147 subjects that were not at home during their endline survey. This table presents both reduced form and 2SLS estimates of the effect of therapy on mental health outcomes. For 2SLS, therapy take-up and treatment intensity are instrumented using an indicator that is one if subject is randomly assigned to either therapy arm, and zero if assigned to nudge only or control group. Robust standard errors are shown in parentheses. All regressions include strata fixed effects.

Table B6: MENTAL HEALTH OUTCOMES BY SOCIAL DESIRABILITY SCORE

Variable	Psychological distress index (1)	Anxiety index (2)	Depression index (3)	Caregiver distress assessment index (4)
SDB score above median (>1)				
Received therapy (Admin)	-0.099	0.019	0.032	-0.278
	(0.074)	(0.103)	(0.108)	(0.087)
Received 6+ therapy sessions	-0.214	0.038	0.064	-0.604
	(0.157)	(0.213)	(0.231)	(0.209)
Received 4+ therapy sessions	-0.103	0.019	0.032	-0.291
	(0.076)	(0.106)	(0.112)	(0.091)
Number of therapy sessions	-0.019	0.004	0.006	-0.055
	(0.014)	(0.020)	(0.021)	(0.017)
Observations	402	438	438	402
SDB score below median (≤1)				
Received therapy (Admin)	-0.116	-0.028	-0.153	-0.112
	(0.104)	(0.093)	(0.096)	(0.092)
Received 6+ therapy sessions	-0.306	-0.075	-0.403	-0.295
	(0.274)	(0.243)	(0.254)	(0.241)
Received 4+ therapy sessions	-0.122	-0.032	-0.164	-0.116
	(0.112)	(0.099)	(0.103)	(0.098)
Number of therapy sessions	-0.024	-0.006	-0.031	-0.023
	(0.021)	(0.019)	(0.020)	(0.019)
Observations	552	595	595	552

Notes: This table reports the same regressions as Table 2 conducted separately for subjects with high and low social desirability bias scores. The sample for these regressions is restricted to subjects with baseline and endline consent (N=1,033). For Columns 1 and 4, we are missing caregiver responses for 79 subjects that were not at home during their endline survey. Robust standard errors are shown in parentheses. All regressions include strata fixed effects.

Table B7: TREATMENT EFFECTS ON SCHOOL ATTENDANCE (REDUCED FORM - OLS)

	In the past 2 weeks:				
	Any school attendance	Does not report missing school	Attendance rate, subject	Attendance rate, caregiver	Attendance rate, admin
Variable	(1)	(2)	(3)	(4)	(5)
Assigned to therapy-	-0.011	0.008	-0.013	-0.019	0.016
	(0.017)	(0.034)	(0.019)	(0.021)	(0.014)
Assigned to nudge	-0.015	0.008	-0.022	-0.042	-0.005
	(0.018)	(0.034)	(0.019)	(0.021)	(0.015)
Assigned to therapy+	0.003	0.020	-0.010	-0.011	-0.020
	(0.017)	(0.034)	(0.019)	(0.022)	(0.016)
Control group mean	0.932	0.566	0.835	0.830	0.766
F-stat for therapy-=therapy+	0.623	0.152	0.020	0.136	6.428
	(0.430)	(0.697)	(0.886)	(0.713)	(0.011)
Observations	1635	1633	1627	1507	1048

Notes: This table presents the reduced form estimates of therapy's effect on school attendance outcomes. The sample for these regressions consists of students with endline consent (N=1,635). There are two missing responses for does not report missing school and eight missing responses for subject-reported attendance rate due to non-responses. The administrative attendance rate is available for 1,048 respondents, while the caregiver-reported attendance rate is available for 1,507 respondents due to increased caregiver response rates for education-related measures. The test that therapy-=therapy+ reports the F-statistic and its associated p-value (in parenthesis) for the null hypothesis that the coefficients on therapy- and therapy+ are equal. A Seemingly Unrelated Regression (SUR) test was conducted for the regressions in the table. For the null hypothesis that therapy- equals therapy+ across all regressions, the chi-squared statistic is 6.98 (p-value=0.222). For the null hypothesis that the nudge coefficients are jointly zero across all regressions, the chi-squared statistic is 10.87 (p-value=0.054). The SUR test was executed for 966 observations with available data for all dependent variables. Robust standard errors are shown in parentheses. All regressions include strata fixed effects.

Table B8: TREATMENT EFFECTS ON SCHOOL ATTENDANCE (2SLS)

	In the past 2 weeks:				
Variable	Any school attendance (1)	Does not report missing school (2)	Attendance rate, subject (3)	Attendance rate, caregiver (4)	Attendance rate, admin (5)
Received therapy (Admin)	0.005	0.012	0.000	0.007	0.000
	(0.015)	(0.028)	(0.014)	(0.016)	(0.011)
Received 6+ therapy sessions	0.012	0.029	0.000	0.018	0.003
	(0.037)	(0.071)	(0.034)	(0.039)	(0.029)
Received 4+ therapy sessions	0.005	0.012	0.000	0.007	0.000
	(0.016)	(0.030)	(0.014)	(0.017)	(0.012)
Number of therapy sessions	0.001	0.002	0.000	0.001	0.000
	(0.003)	(0.006)	(0.003)	(0.003)	(0.002)
Control group mean	0.932	0.566	0.835	0.830	0.766
Observations	1635	1633	1627	1507	1048

Notes: Each column reports the coefficient from the 2SLS estimate of the randomization-induced therapy effect. Therapy take-up (or treatment intensity) are instrumented using random assignment. The sample for these regressions include students with endline consent (N=1,635) and nonmissing observations for each dependent variable. There are two missing responses for does not report missing school and eight missing responses for subject-reported attendance rate due to non-responses. The administrative attendance rate is available for 1,048 respondents, while the caregiver-reported attendance rate is available for 1,507 respondents due to increased caregiver response rates for education-related measures. Robust standard errors are shown in parentheses. All regressions include strata fixed effects. Reduced form estimates are presented in Appendix Table B7.

Table B9: TREATMENT EFFECTS ON COGNITIVE TESTS (REDUCED FORM - OLS)

Variable	Forward digit span score (1)	Backward digit span score (2)	Ordered digit span score (3)	Digit Span Index (4)
Assigned to therapy-	0.028	0.067	0.051	0.052
	(0.086)	(0.075)	(0.094)	(0.069)
Assigned to nudge	-0.048	0.022	-0.085	-0.038
	(0.086)	(0.071)	(0.092)	(0.068)
Assigned to therapy+	-0.024	0.066	0.002	0.015
	(0.086)	(0.075)	(0.089)	(0.068)
F-stat for therapy-=therapy+	0.367	0.000	0.297	0.304
	(0.545)	(0.986)	(0.586)	(0.581)
Control group mean	5.471	3.453	3.932	0.000
Observations	1540	1540	1540	1540

Notes: This table presents the reduced form estimates of therapy's effect on cognitive test performance. Robust standard errors are shown in parentheses. All regressions include strata fixed effects. The sample for these regressions include students with endline consent with in-person surveys (N=1,540). The test that therapy-=therapy+ reports the F-statistic and its associated p-value (in parentheses) for the null hypothesis that the coefficients on therapy- and therapy+ are equal.

Table B10: TREATMENT EFFECTS ON COGNITIVE TESTS (2SLS)

Variable	Forward digit span score (1)	Backward digit span score (2)	Ordered digit span score (3)	Digit Span Index (4)
Received therapy (Admin)	0.029	0.062	0.077	0.059
	(0.063)	(0.054)	(0.076)	(0.049)
Received 6+ therapy sessions	0.073	0.154	0.190	0.146
	(0.155)	(0.136)	(0.191)	(0.121)
Received 4+ therapy sessions	0.031	0.066	0.081	0.062
	(0.067)	(0.057)	(0.081)	(0.052)
Number of therapy sessions	0.006	0.013	0.015	0.012
	(0.013)	(0.011)	(0.015)	(0.010)
Control group mean	5.471	3.453	3.932	0.000
Observations	1540	1540	1540	1540

Notes: Each column reports the coefficient from the 2SLS estimate of the randomization-induced therapy effect. Therapy take-up (or treatment assignment) is instrumented using random assignment. The sample for these regressions include students with endline consent with in-person surveys (N=1,540). Robust standard errors are shown in parentheses. All regressions include strata fixed effects. Reduced form estimates are presented in Appendix Table B9.

Table B11: MECHANISMS (REDUCED FORM - OLS)

Variable	Emotional skills (1)	Relationship to parents (2)	Relationship to classmates (3)	Healthier habits (4)	Perspective on Life (5)	Mental health attitudes (6)
Assigned to therapy-	0.094	0.066	0.083	0.059	0.068	-0.038
	(0.071)	(0.073)	(0.068)	(0.070)	(0.073)	(0.072)
Assigned to nudge	-0.094	0.039	0.044	-0.006	-0.034	0.122
	(0.071)	(0.072)	(0.069)	(0.070)	(0.070)	(0.073)
Assigned to therapy+	0.131	0.021	0.090	0.022	0.048	0.040
	(0.071)	(0.074)	(0.069)	(0.071)	(0.071)	(0.071)
F-stat for therapy-=therapy+	0.266	0.379	0.010	0.271	0.083	1.113
	(0.606)	(0.538)	(0.921)	(0.603)	(0.774)	(0.292)
Observations	1540	1488	1540	1540	1540	1635

Notes: This table presents the reduced form estimates of therapy's effect on different standardized indexes designed to capture mechanisms through which therapy affects mental health. Robust standard errors are shown in parentheses. All regressions include strata fixed effects. The sample for these regressions include students with endline consent (N=1,635). For Columns 1 and 3-5, we are missing 95 responses from phone surveys at endline. For Column 2, we are missing caregiver responses for 147 subjects that were not at home during their endline survey. The test that therapy-=therapy+ reports the F-statistic and its associated p-value (in parenthesis) for the null hypothesis that the coefficients on therapy- and therapy+ are equal. A Seemingly Unrelated Regression (SUR) test was conducted for the regressions in the table. For the null hypothesis that therapy- equals therapy+ across all regressions, the chi-squared statistic is 3.47 (p-value=0.748). For the null hypothesis that the nudge coefficients are jointly zero across all regressions, the chi-squared statistic is 7.61 (p-value=0.268).

Table B12: MECHANISMS (2SLS)

Variable	Emotional skills (1)	Relationship to parents (2)	Relationship to classmates (3)	Healthier habits (4)	Perspective on Life (5)	Mental health attitudes (6)
Received therapy (Admin)	0.180	0.026	0.072	0.048	0.084	-0.065
	(0.056)	(0.061)	(0.055)	(0.051)	(0.046)	(0.052)
	[0.011]	[0.677]	[0.318]	[0.415]	[0.213]	[0.318]
Received 6+ therapy sessions	0.444	0.064	0.177	0.119	0.207	-0.167
	(0.143)	(0.150)	(0.138)	(0.127)	(0.112)	(0.131)
	[0.012]	[0.677]	[0.318]	[0.415]	[0.213]	[0.318]
Received 4+ therapy sessions	0.191	0.027	0.076	0.051	0.089	-0.070
	(0.059)	(0.065)	(0.059)	(0.054)	(0.049)	(0.056)
	[0.011]	[0.677]	[0.318]	[0.415]	[0.213]	[0.318]
Number of therapy sessions	0.036	0.005	0.014	0.010	0.017	-0.013
	(0.011)	(0.012)	(0.011)	(0.010)	(0.009)	(0.011)
	[0.011]	[0.677]	[0.318]	[0.415]	[0.213]	[0.318]
Observations	1540	1488	1540	1540	1540	1635

Notes: This table reports the coefficient from the 2SLS estimates of the randomization-induced therapy effect on different standardized indexes designed to capture mechanisms through which therapy affects mental health. Therapy take-up (or treatment intensity) are instrumented using random assignment. The sample for these regressions include students with endline consent (N=1,635). For Columns 1 and 3-5, we are missing responses from 95 respondents who did phone surveys at endline. For Column 2, we are missing caregiver responses for 147 subjects that were not at home during their endline survey. All regressions include strata fixed effects. Robust standard errors are shown in parentheses. FDR adjusted q-values are shown in brackets and are calculated by pooling all specifications in the table. Reduced form estimates are presented in Appendix Table B11.

Table B13: HETEROGENEITY

Variable	Psychological distress (1)	Any school attendance (2)	Emotional skills (3)	Relationship to parents (4)	Relationship to classmates (5)	Healthier habits (6)	Perspective on life (7)	Mental hea attitudes (8)
Full sample	-0.156	0.005	0.180	0.026	0.072	0.048	0.084	-0.065
	(0.057)	(0.015)	(0.056)	(0.061)	(0.055)	(0.051)	(0.046)	(0.052)
High dropout risk=1	-0.089	0.056	0.184	0.037	0.145	0.070	0.080	-0.080
	(0.115)	(0.032)	(0.091)	(0.088)	(0.111)	(0.103)	(0.089)	(0.097)
High dropout risk=0	-0.184	-0.016	0.177	0.020	0.041	0.039	0.085	-0.061
	(0.066)	(0.015)	(0.071)	(0.079)	(0.062)	(0.058)	(0.055)	(0.063)
Behind in grade=1	-0.390	0.035	0.174	0.204	0.042	0.045	0.120	-0.121
	(0.175)	(0.072)	(0.213)	(0.206)	(0.193)	(0.222)	(0.203)	(0.198)
Behind in grade=0	-0.128	0.000	0.158	-0.001	0.050	0.028	0.067	-0.062
	(0.060)	(0.011)	(0.057)	(0.060)	(0.061)	(0.051)	(0.045)	(0.057)
Age$\geq$15	-0.124	0.019	0.228	0.004	0.036	0.127	0.089	-0.040
	(0.083)	(0.026)	(0.075)	(0.100)	(0.074)	(0.067)	(0.061)	(0.069)
Age$<$15	-0.192	-0.012	0.126	0.050	0.113	-0.041	0.078	-0.096
	(0.076)	(0.011)	(0.082)	(0.064)	(0.084)	(0.073)	(0.072)	(0.082)
Female=1	-0.167	0.020	0.300	0.075	0.112	0.064	0.113	-0.123
	(0.099)	(0.020)	(0.077)	(0.088)	(0.081)	(0.071)	(0.076)	(0.081)
Female=0	-0.145	-0.010	0.062	-0.022	0.033	0.033	0.055	-0.010
	(0.059)	(0.021)	(0.082)	(0.085)	(0.077)	(0.074)	(0.055)	(0.062)
Baseline MH Flag=1	-0.214	0.005	0.099	0.151	0.114	0.044	0.027	-0.145
	(0.114)	(0.026)	(0.085)	(0.144)	(0.122)	(0.106)	(0.113)	(0.102)
Baseline MH Flag=0	-0.082	-0.022	0.201	-0.083	0.012	0.030	0.088	-0.099
	(0.079)	(0.021)	(0.089)	(0.080)	(0.056)	(0.071)	(0.078)	(0.065)

Notes: Each column reports the coefficient from the 2SLS estimate of the randomization-induced therapy effect for a given subgroup. Therapy take-up is instrume using random assignment. Robust standard errors are shown in parentheses. All regressions include strata fixed effects. The sample for these regressions include stu with endline consent (N=1,635) and non-missing observations for each dependent variable except for the last two variables which rely on baseline data and are d from subjects with both baseline and endline information (N=1,033).

Table B14: HETEROGENEITY - MENTAL HEALTH FLAG WITH BASELINE CONTROLS

Variable	Psychological distress (1)	Any school attendance (2)	Emotional skills (3)	Relationship to parents (4)	Relationship to classmates (5)	Healthier habits (6)	Perspective on life (7)
Received therapy	-0.089	-0.026	0.205	-0.081	-0.002	0.022	0.052
	(0.076)	(0.018)	(0.088)	(0.082)	(0.057)	(0.071)	(0.079)
Received therapy *MHflag	-0.129	0.040	-0.104	0.236	0.138	-0.003	0.003
	(0.129)	(0.030)	(0.126)	(0.164)	(0.124)	(0.129)	(0.120)
6+ sessions	-0.201	-0.064	0.463	-0.151	-0.015	0.075	0.107
	(0.168)	(0.042)	(0.185)	(0.190)	(0.128)	(0.156)	(0.175)
6+ sessions*MH flag	-0.419	0.105	-0.017	0.411	0.405	0.037	0.110
	(0.320)	(0.078)	(0.282)	(0.387)	(0.307)	(0.299)	(0.266)
4+ sessions	-0.092	-0.026	0.213	-0.091	-0.001	0.018	0.055
	(0.080)	(0.019)	(0.093)	(0.086)	(0.060)	(0.075)	(0.083)
4+ sessions*MH flag	-0.140	0.041	-0.104	0.251	0.145	0.003	0.004
	(0.137)	(0.031)	(0.133)	(0.173)	(0.131)	(0.136)	(0.126)
Number	-0.018	-0.005	0.041	-0.016	0.000	0.004	0.010
	(0.015)	(0.004)	(0.017)	(0.016)	(0.011)	(0.014)	(0.016)
Number*MH flag	-0.027	0.008	-0.018	0.046	0.029	0.000	0.002
	(0.026)	(0.006)	(0.025)	(0.033)	(0.025)	(0.026)	(0.024)
Observations	954	985	979	954	979	979	979

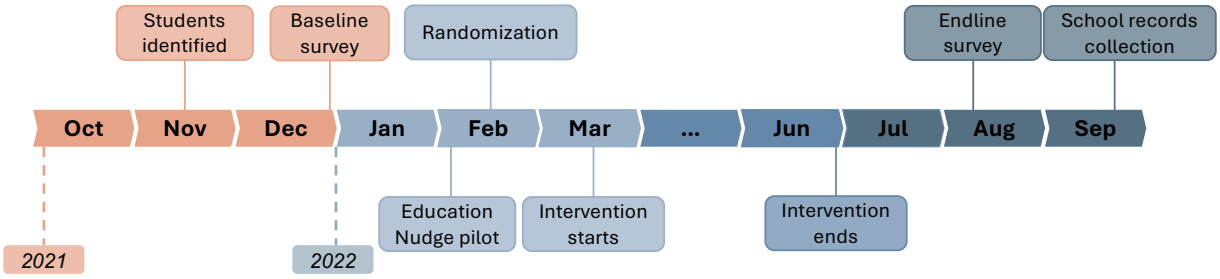
Notes: This table reports the same regressions as Table 3 with additional baseline controls for each dependent variable. The sample for these regressions include students with both endline and baseline consent (N=1033).Indexes with components not asked in the endline student phone survey have a reduced sample of 979 (Columns 3 and 5-7), while indexes incorporating caregiver responses have a reduced sample of 954 (Columns 1 and 4). The Mental Health Attitudes index was dropped from this table due to the lack of baseline controls available for its components. Robust standard errors are shown in parentheses. All regressions include strata fixed effects fully interacted with the baseline mental health flag.

Table B15: MEAN REVERSION IN MENTAL HEALTH

	If baseline below mean:			*Overall:*	
Variable	Endline below mean (1)	Endline above mean (2)	Endline above baseline (3)	Endline above baseline (4)	Endline same as baseline (5)
Cantrill Happiness Ladder	0.605	0.395	0.755	0.546	0.195
Little interst in doing things	0.471	0.529	0.162	0.128	0.415
Feeling down/unhappy	0.634	0.366	0.366	0.128	0.464
Feeling nervous/anxious	0.673	0.327	0.327	0.136	0.426
Not being able to stop worrying	0.923	0.077	0.077	0.045	0.566
Have people to share good news	0.678	0.322	0.470	0.335	0.347
Finish what I begin	0.590	0.410	0.590	0.351	0.291
Feel optimistic about future	0.387	0.613	0.710	0.375	0.303
Feel happy	0.593	0.407	0.540	0.303	0.371
Enjoy activities and lose track of time	0.453	0.547	0.520	0.327	0.295
Have lots of fun	0.552	0.448	0.604	0.394	0.339
Feel completely absorbed in activities	0.580	0.420	0.622	0.327	0.279
Love life	0.667	0.333	0.870	0.394	0.359
Keep at schoolwork until done	0.560	0.440	0.660	0.299	0.343
Have someone for problems	0.594	0.406	0.594	0.359	0.307
Forget about all else with new activity	0.538	0.462	0.513	0.343	0.307
Lose track of time when learning	0.590	0.410	0.576	0.351	0.287
Expect the best in uncertain times	0.483	0.517	0.450	0.291	0.263
Have people who care	0.423	0.577	0.705	0.343	0.307
Good things will happen	0.638	0.362	0.571	0.295	0.283
I have friends who care	0.462	0.538	0.750	0.426	0.267
Stick to plans to get things done	0.505	0.495	0.649	0.307	0.319
Believe things will work out	0.602	0.398	0.538	0.219	0.331
I am a hard worker	0.441	0.559	0.755	0.371	0.303
I am a cheerful person	0.423	0.577	0.722	0.359	0.327

Notes: The sample for this table consists of students assigned to the control group with both baseline and endline responses (N=265). Columns 1-3 report the fraction of students with baseline responses below the mean who also have endline responses below the mean, above the mean, or above their baseline response, respectively, for various mental health variables. Columns 4-6 report the overall fraction of students with endline responses above or equal to their baseline responses, respectively.

Figure C1: TIMELINE OF DATA COLLECTION AND INTERVENTION



C Intervention Description and Costs

C1 Timeline

This study was conducted between Fall 2021 and late Summer 2022, during the global COVID-19 pandemic. Figure C1 provides a detailed overview of the project timeline. Initially, in Fall 2021, the pandemic appeared to be subsiding in Nepal, allowing field visits to identify partner schools and compile student lists. However, a resurgence of COVID-19 in late Fall through January 2022 necessitated adjustments to our data collection approach.

Due to pandemic-related restrictions, the baseline survey was conducted via telephone using contact numbers available in student records. This method resulted in an incomplete baseline dataset, introducing selection concerns associated with latent factors correlated with having accurate and active phone numbers. Given these limitations, we opted against using the baseline survey for stratification in randomization. Instead, we relied on school records to stratify and randomly assign students to one of four treatment arms in February 2022.

Following randomization, in-person treatment sessions commenced in March 2022 and continued through June. The endline survey was conducted in person during late Summer 2022, with all fieldwork concluding by September. Despite challenges posed by the pandemic, we successfully implemented this intervention on adolescent mental health and educational outcomes in Nepal.

C2 Intervention Costs

The implementation costs for the interventions in this project are presented in Table C1. Panel A presents the costs for the talk therapy disaggregated into components. Panel B does the same for the education nudge. For both interventions, we also calculate the average cost per beneficiary by dividing the total cost incurred by the number of beneficiaries (725 beneficiaries for talk therapy and 814 beneficiaries for the education nudge). For the talk therapy, we also report the average cost per session by dividing the cost per beneficiary by the mean number of sessions per beneficiary

(4.4). Costs were incurred in Nepali Rupees (NPR), and for the conversion to US Dollars (USD), we assume 1 USD = 115 NPR.[9]

Talk therapy cost on average NPR 9,669 (USD 84) per treated adolescent, which implies a per session cost of NPR 2,197 (USD 19). From the 2SLS results presented in Table 2 we know that receiving talk therapy increases mental health by 0.156 SD. This implies that the cost to improve mental health by 0.1 SD is $9,669/1.56 =$ NPR 6,198 (USD 54).

Table C1: INTERVENTION COSTS

	Nepali Rupees	US Dollars
Panel A: Talk Therapy Costs		
NGO management staff	17,56,238	15,272
Counselor recruitment	20,010	174
Counselor training	7,57,965	6591
Counselor salaries	28,80,015	25,044
Mobile app content development	3,10,035	2,696
Operational costs	12,85,690	11,180
Total	70,09,953	60,956
Per beneficiary	9,669	84
Per session	2,197	19
Panel B: Education Nudge Costs		
NGO management staff	4,76,550	4,144
Facilitator training	1,71,600	1,492
Facilitator salaries	5,10,000	4,435
Operational costs	3,45,900	3,008
Total	15,04,050	13,079
Per beneficiary	1848	16

[9]This is the exchange rate used by CMC-N during the contracting process.

D Meta-analysis of Evidence from Randomized Controlled Trials of Individualized Talk Therapy Interventions Aimed at Adolescents in Low and Middle Income Countries

In order to identify the appropriate, applicable literature, we conducted a meta-analysis of published research included in the PubMed, PsycInfo, Cochrane Library, Web of Science, and SCOPUS indexes. We chose to eliminate Google Scholar as a source because of limits in its boolean search algorithm and the preponderance of unpublished grey literature.

Studies were included if they met the following criteria for inclusion:

- Study is an original RCT (not a report summarizing others RCTs or review articles)
- Study is published in English
- Study takes place in a low or middle income country
- Study is targeted at adolescents. ”Targeted” implies that a majority of subjects are within ages 12 - 17
- Study has at least 1 citation
- Intervention is provided to one person at a time, not in a group setting
- Intervention is a form of talk therapy

The following search algorithm was used to identify studies in all indexes other than SCOPUS:

(”Randomized Controlled Trial” OR ”Randomized Control Trial” OR ”RCT”) AND (”Talk Therapy” OR ”Individualized Therapy” OR ”Individual Therapy” OR ”Cognitive Behavioral Therapy” OR ”CBT” OR ”Psychotherapy”) AND (”School-aged children” OR ”Youth” OR ”Adolescents” OR ”Teenager”) AND (”Albania” OR ”Equatorial Guinea” OR ”Moldova” OR ”Algeria” OR ”Fiji” OR ”Mongolia” OR ”Argentina” OR ”Gabon” OR ”Montenegro” OR ”Armenia” OR ”Georgia” OR ”Namibia” OR ”Azerbaijan” OR ”Grenada” OR ”North Macedonia” OR ”Belarus” OR ”Guatemala” OR ”Paraguay” OR ”Belize” OR ”Indonesia” OR ”Peru” OR ”Bosnia” OR ”Herzegovina” OR ”Iran” OR ”Serbia” OR ”Botswana” OR ”Iraq” OR ”South Africa” OR ”Brazil” OR ”Jamaica” OR ”Saint Lucia” OR ”China” OR ”Kazakhstan” OR ”Saint Vincent” OR ”Grenadines” OR ”Colombia” OR ”Kosovo” OR ”Suriname” OR ”Costa Rica” OR ”Libya” OR ”Thailand” OR ”Cuba” OR ”Malaysia” OR ”Tonga” OR ”Dominica” OR ”Maldives” OR ”Türkiye” OR ”Dominican Republic” OR ”Marshall Islands” OR ”Turkmenistan” OR ”Ecuador” OR ”Mauritius” OR ”Tuvalu” OR ”El Salvador” OR ”Mexico” OR ”Ukraine” OR ”Angola” OR ”Honduras” OR ”Papua New Guinea” OR ”Bangladesh” OR ”India” OR ”Philippines” OR ”Afghanistan” OR ”North Korea” OR ”South Sudan” OR ”Burkina Faso” OR ”Liberia” OR ”Sudan” OR ”Burundi” OR ”Madagascar” OR ”Syrian Arab Republic” OR ”Central African Republic” OR ”Malawi” OR ”Togo” OR ”Chad” OR ”Mali” OR ”Uganda” OR ”Congo” OR ”Mozambique” OR ”Yemen” OR ”Eritrea” OR ”Niger” OR ”Ethiopia” OR ”Rwanda” OR ”Gambia” OR ”Sierra Leone” OR ”Guinea-Bissau” OR ”Somalia” OR ”Benin” OR ”Jordan” OR ”Samoa” OR ”Bhutan” OR ”Kenya” OR ”São Tomé and Principe” OR ”Bolivia” OR ”Kiribati” OR ”Senegal” OR ”Cabo Verde” OR ”Kyrgyz Republic” OR ”Kyrgyzstan” OR ”Solomon Islands” OR ”Cambodia” OR ”Lao” OR

”Sri Lanka” OR ”Cameroon” OR ”Lebanon” OR ”Tajikistan” OR ”Comoros” OR ”Lesotho” OR ”Tanzania” OR ”Mauritania” OR ”Timor-Leste” OR ”Côte d’Ivoire” OR ”Micronesia” OR ”Tunisia” OR ”Djibouti” OR ”Morocco” OR ”Uzbekistan” OR ”Egypt” OR ”Myanmar” OR ”Vanuatu” OR ”Eswatini” OR ”Nepal” OR ”Vietnam” OR ”Ghana” OR ”Nicaragua” OR ”West Bank” OR ”Gaza” OR ”Guinea” OR ”Nigeria” OR ”Zambia” OR ”Haiti” OR ”Pakistan” OR ”Zimbabwe”) NOT (”Group Therapy” OR ”Group Sessions” OR ”Group Counseling” OR ”Group Intervention” OR ”Group Program” OR ”Group Psychotherapy” OR ”Group-Based”) NOT (”Chatbot” OR ”Computer” OR ”Internet Based” OR ”Online” OR ”Virtual Reality” OR ”VRCT” OR ”Mobile App” OR ”Web Based” OR ”Digital Intervention”) NOT (”Systematic Review” OR ”Pilot”) NOT (”United States” OR ”USA” OR ”US” OR ”Canada” OR ”United Kingdom” OR ”Ireland” OR ”Australia” OR ”New Zealand” OR ”Japan” OR ”France” OR ”Germany” OR ”Spain” OR ”Italy” OR ”Sweden” OR ”Norway” OR ”Denmark” OR ”Finland” OR ”Belgium” OR ”Netherlands” OR ”Switzerland” OR ”Austria” OR ”Luxembourg” OR ”Iceland” OR ”Singapore” OR ”South Korea” OR ”Israel” OR ”Portugal” OR ”Greece” OR ”Hong Kong” OR ”Taiwan” OR ”United Arab Emirates” OR ”Saudi Arabia” OR ”Qatar” OR ”Kuwait” OR ”Brunei” OR ”Liechtenstein” OR ”San Marino” OR ”Malta” OR ”Monaco” OR ”England” OR ”Scotland” OR ”Wales” OR ”German” OR ”American” OR ”UK” OR ”Alabama” OR ”Alaska” OR ”Arizona” OR ”Arkansas” OR ”California” OR ”Colorado” OR ”Connecticut” OR ”Delaware” OR ”Florida” OR ”Georgia” OR ”Hawaii” OR ”Idaho” OR ”Illinois” OR ”Indiana” OR ”Iowa” OR ”Kansas” OR ”Kentucky” OR ”Louisiana” OR ”Maine” OR ”Maryland” OR ”Massachusetts” OR ”Michigan” OR ”Minnesota” OR ”Mississippi” OR ”Missouri” OR ”Montana” OR ”Nebraska” OR ”Nevada” OR ”New Hampshire” OR ”New Jersey” OR ”New Mexico” OR ”New York” OR ”North Carolina” OR ”North Dakota” OR ”Ohio” OR ”Oklahoma” OR ”Oregon” OR ”Pennsylvania” OR ”Rhode Island” OR ”South Carolina” OR ”South Dakota” OR ”Tennessee” OR ”Texas” OR ”Utah” OR ”Vermont” OR ”Virginia” OR ”Washington” OR ”West Virginia” OR ”Wisconsin” OR ”Wyoming”)

The following search was used for SCOPUS:

TITLE-ABS-KEY ((”Randomized Controlled Trial” OR ”Randomized Control Trial” OR ”RCT”) AND (”Cognitive Therapy” OR ”CBT” OR ”Psychotherapy” OR ”Cognitive Behavioral Therapy” OR ”Talk Therapy”) AND (”School-aged children” OR ”Youth” OR ”Adolescents” OR ”Teenager”) AND (”Albania” OR ”Equatorial Guinea” OR ”Moldova” OR ”Algeria” OR ”Fiji” OR ”Mongolia” OR ”Argentina” OR ”Gabon” OR ”Montenegro” OR ”Armenia” OR ”Georgia” OR ”Namibia” OR ”Azerbaijan” OR ”Grenada” OR ”North Macedonia” OR ”Belarus” OR ”Guatemala” OR ”Paraguay” OR ”Belize” OR ”Indonesia” OR ”Peru” OR ”Bosnia” OR ”Herzegovina” OR ”Iran” OR ”Serbia” OR ”Botswana” OR ”Iraq” OR ”South Africa” OR ”Brazil” OR ”Jamaica” OR ”Saint Lucia” OR ”China” OR ”Kazakhstan” OR ”Saint Vincent” OR ”Grenadines” OR ”Colombia” OR ”Kosovo” OR ”Suriname” OR ”Costa Rica” OR ”Libya” OR ”Thailand” OR ”Cuba” OR ”Malaysia” OR ”Tonga” OR ”Dominica” OR ”Maldives” OR ”Turkiye” OR ”Dominican Republic” OR ”Marshall Islands” OR ”Turkmenistan” OR ”Ecuador” OR ”Mauritius” OR ”Tuvalu” OR ”El Salvador” OR ”Mexico” OR ”Ukraine” OR ”Angola” OR ”Honduras” OR ”Papua New Guinea” OR ”Bangladesh” OR ”India” OR ”Philippines” OR ”Afghanistan” OR ”North Korea” OR ”South Sudan” OR ”Burkina Faso” OR ”Liberia” OR ”Sudan” OR ”Burundi” OR ”Madagascar” OR ”Syrian Arab Republic” OR ”Central African Republic” OR ”Malawi” OR ”Togo” OR ”Chad” OR ”Mali” OR ”Uganda” OR ”Congo” OR ”Mozambique” OR ”Yemen” OR ”Eritrea” OR ”Niger” OR ”Ethiopia” OR ”Rwanda” OR ”Gambia” OR ”Sierra Leone” OR ”Guinea-Bissau” OR ”Somalia” OR ”Benin” OR ”Jordan” OR ”Samoa” OR ”Bhutan” OR ”Kenya” OR ”Bolivia” OR ”Kiribati” OR ”Senegal” OR ”Cabo Verde” OR ”Kyrgyz Republic” OR ”Kyrgyzstan” OR ”Solomon Islands” OR ”Cambodia” OR ”Lao” OR ”Sri Lanka” OR ”Cameroon” OR ”Lebanon” OR ”Tajikistan” OR ”Comoros” OR ”Lesotho” OR ”Tanzania” OR ”Mauritania” OR ”Timor-Leste” OR ”Micronesia” OR ”Tunisia” OR ”Djibouti” OR ”Morocco” OR ”Uzbekistan” OR ”Egypt” OR ”Myanmar” OR ”Vanuatu” OR ”Eswatini” OR ”Nepal” OR ”Vietnam” OR ”Ghana” OR ”Nicaragua” OR ”West Bank” OR ”Gaza” OR ”Guinea” OR ”Nigeria” OR ”Zambia” OR ”Haiti” OR ”Pakistan” OR ”Zimbabwe”) AND NOT (”Group Therapy” OR ”Group Sessions” OR ”Group Counseling” OR ”Group Intervention” OR ”Group Program” OR ”Group Psychotherapy”)

AND NOT (”Chatbot” OR ”Computer” OR ”Internet Based” OR ”Online” OR ”Virtual Reality” OR ”VRCT” OR ”Mobile App” OR ”Web Based”) AND NOT (”Systematic Review”) AND NOT (”Medication” OR ”Dosage” OR ”Regimen” OR ”Antiretroviral”) AND NOT (”USA” OR ”Canada” OR ”United Kingdom” OR ”Ireland” OR ”Australia” OR ”New Zealand” OR ”Japan” OR ”France” OR ”Germany” OR ”Spain” OR ”Italy” OR ”Sweden” OR ”Norway” OR ”Denmark” OR ”Finland” OR ”Belgium” OR ”Netherlands” OR ”Switzerland” OR ”Austria” OR ”Luxembourg” OR ”Iceland” OR ”Singapore” OR ”South Korea” OR ”Israel” OR ”Portugal” OR ”Greece” OR ”Hong Kong” OR ”Taiwan” OR ”United Arab Emirates” OR ”Saudi Arabia” OR ”Qatar” OR ”Kuwait” OR ”Brunei” OR ”Liechtenstein” OR ”San Marino” OR ”Malta” OR ”Monaco” OR ”England” OR ”Scotland” OR ”Wales” OR ”German” OR ”American” OR ”UK” OR ”Alabama” OR ”Alaska” OR ”Arizona” OR ”Arkansas” OR ”California” OR ”Colorado” OR ”Connecticut” OR ”Delaware” OR ”Florida” OR ”Georgia” OR ”Hawaii” OR ”Idaho” OR ”Illinois” OR ”Indiana” OR ”Iowa” OR ”Kansas” OR ”Kentucky” OR ”Louisiana” OR ”Maine” OR ”Maryland” OR ”Massachusetts” OR ”Michigan” OR ”Minnesota” OR ”Mississippi” OR ”Missouri” OR ”Montana” OR ”Nebraska” OR ”Nevada” OR ”New Hampshire” OR ”New Jersey” OR ”New Mexico” OR ”New York” OR ”North Carolina” OR ”North Dakota” OR ”Ohio” OR ”Oklahoma” OR ”Oregon” OR ”Pennsylvania” OR ”Rhode Island” OR ”South Carolina” OR ”South Dakota” OR ”Tennessee” OR ”Texas” OR ”Utah” OR ”Vermont” OR ”Virginia” OR ”Washington” OR ”West Virginia” OR ”Wisconsin” OR ”Wyoming”)) AND (”Individual Therapy” OR ”One-on-One” OR ”Face-to-Face” OR ”Individualized”)

Table D1 tabulates the number of studies identified through these database searches:

Table D1: NUMBER OF STUDIES PER DATABASE

Database	Search Used	Number of Results	Text searched
Web of Science	Original	16	Abstract
SCOPUS	Original	125	Title/Abstract/Key
SCOPUS	SCOPUS 2	13	Title/Abstract/Key
PubMed	Original	21	Title/Abstract
PsycInfo	Original	9	Abstract
ERIC	Original	0	Abstract/Summary
Cochrane Trials	Original	51	Title/Abstract/Key

Two additional studies were added based on prior knowledge of the study. After duplicates were eliminated, there were a total of 174 papers that were manually screened based on the inclusion criteria, leaving a total of 10 studies with a total of 1,634 participants that met the criteria for inclusion. None of these 10 studies were targeted at a general population; all pre-screened for a pre-existing condition. None of these 10 studies considered schooling as a primary outcome. These studies are:

- Amin, Rizwana, Amna Iqbal, Farooq Naeem, and Muhammad Irfan, “Effectiveness of a culturally adapted cognitive behavioural therapy-based guided self-help (CACBT-GSH) intervention to reduce social anxiety and enhance self-esteem in adolescents: a randomized controlled trial from Pakistan,” *Behavioural and Cognitive Psychotherapy*, 2020, *48* (5), 503–514.

- Charkhandeh, Mansoureh, Mansor Abu Talib, and Caroline Jane Hunt, “The clinical ef-

fectiveness of cognitive behavior therapy and an alternative medicine approach in reducing symptoms of depression in adolescents," *Psychiatry Research*, 2016, *239*, 325–330.

- Jaberghaderi, N., M. Rezaei, M. Kolivand, and A. Shokoohi, "Effectiveness of Cognitive Behavioral Therapy and Eye Movement Desensitization and Reprocessing in Child Victims of Domestic Violence," *Iran J Psychiatry*, 2019, *14* (1), 67–75.

- Kaminer, D., C. Simmons, S. Seedat, S. Skavenski, L. Murray, M. Kidd, and J. A. Cohen, "Effectiveness of abbreviated trauma-focused cognitive behavioural therapy for South African adolescents: a randomized controlled trial," *European journal of psychotraumatology*, 2023, *14* (1), 2181602.

- Kane, Jeremy C., Caleb Figge, Alejandra Paniagua-Avila, Susan Michaels-Strasser, Christopher Akiba, Mwamba Mwenge, Saphira Munthali, Paul Bolton, Stephanie Skavenski, Ravi Paul, Francis Simenda, Kathryn Whetten, Judith Cohen, Kristina Metz, and Laura K. Murray, "Effectiveness of trauma-focused cognitive behavioral therapy compared to psychosocial counseling in reducing HIV risk behaviors, substance use, and mental health problems among orphans and vulnerable children in Zambia: A community-based randomized controlled trial," *AIDS and Behavior*, 2024, 28 (1), 245–263.

- Kumuyi, D. O., E. O. Akinnawo, B. C. Akpunne, A. A. Akintola, D. F. Onisile, and O. O. Aniemeka, "Effectiveness of cognitive behavioural therapy and social skills training in management of conduct disorder," *South African Journal of Psychiatry*, 2022, *28*.

- Miri, S. F., M. Javadi, C. Y. Lin, M. D. Griffiths, M. Bj¨ork, and A. H. Pakpour, "Effectiveness of cognitive-behavioral therapy on nutrition improvement and weight of overweight and obese adolescents: A randomized controlled trial," *Diabetes Metabolic Syndrome-Clinical Research Reviews*, 2019, *13 (3)*, 2190–2197.

- Murray, L. K., S. Skavenski, J. C. Kane, J. Mayeya, S. Dorsey, J. A. Cohen, L. T. M. Michalopoulos, M. Imasiku, and P. A. Bolton, "Effectiveness of trauma-focused cognitive behavioral therapy among trauma-affected children in Lusaka, Zambia: A randomized clinical trial," *JAMA Pediatrics*, 2015, *169 (8)*, 761–769

- Rossouw, Jaco, Elna Yadin, Debra Alexander, and Soraya Seedat, "Prolonged exposure therapy and supportive counselling for post-traumatic stress disorder in adolescents: task-shifting randomised controlled trial," *British Journal of Psychiatry*, 2018, *213 (4)*, 587–594.

- Shein-Szydlo, J., D. G. Sukhodolsky, D. S. Kon, M. M. Tejeda, E. Ramirez, and V. Ruchkin, "A Randomized Controlled Study of Cognitive-Behavioral Therapy for Posttraumatic Stress

in Street Children in Mexico City," *Journal of traumatic stress*, 2016, *29 (5)*, 406-414.

Several of these studies limit their analysis to subjects that complied with random assignment and did not attrit. Hence, while 1,634 are randomized and 763 are treated, only 1,161 are used in the reported analysis. Appendix Table D2 summarizes the location, pre-existing conditions used for selection into the sample, total subjects randomizes, total assigned to a therapy treatment, compliance data when available, and the number of non-attriting observations used in analysis. We find it incredible that the number of subjects assigned to therapy matches the number of partial compliers in all studies. We suspect this reflects differences in disciplinary norms in whether researchers consider subjects assigned to treatment that decline treatment.

Table D2: COMPLIANCE IN RCTS

Study	Country	Pre-existing condition	Total subjects randomized	Assigned to therapy treatment	Partial compliers	Full compliers	Non attritors
Amin et al. (2020)	Pakistan	Social anxiety	76	38	*No details on compliance*		76
Charkhandeh et al. (2016)	Iran	Depression, not treated	188	65	65	65	188
Jaberghaderi et al. (2019)	Iran	Physical abuse or witnessed conflict	139	40	40	25	102
Kaminer et al. (2023)	South Africa	Trauma-exposed	75	37	37	35	73
Kane et al. (2024)	Zambia	Significant HIV risk behaviors	610	307	307	273	252
Kumuyi et al. (2022)	Nigeria	High levels of Conduct Disorder	16	8	*No details on compliance*		8
Miri et al. (2019)	Iran	Overweight	110	55	55	55	102
Murray et al. (2015)	Zambia	Experienced at least one traumatic event	257	131	131	107	210
Rossouw et al. (2018)	South Africa	PTSD	63	31	31	25	52
Shein-Szydlo et al. (2016)	Mexico	At least moderate posttraumatic stress	100	51	51	50	98

Notes: Partial compliers and full compliers are relative to the number of subjects assigned to any therapy treatment. Partial compliers receive some therapy treatment ehile full compliers are those that completed the treatment. Non attritors are those engaged with the study until endline and is relative to the total subjects randomized in the study.

E Meta-analysis of Meta-analyses and Review Articles of Talk Therapy Interventions Aimed at Adolescents

During the Fall of 2024, we conducted a meta-analysis of meta-analyses on the impact of talk therapy aimed at adolescents.

The criteria for study inclusion were:

- Study is a Review Article or Meta-analysis, not original research paper
- Study is published in English
- Study focuses on research targeted at adolescents. "Targeted" implies that a majority of subjects are within ages 12 - 17 (subjects do not need to be exclusively 12-17 nor do they need to span that range)
- Study has at least 1 citation
- Study focuses on interventions that are a form of talk therapy. There are five main categories of talk therapy. Behavioral therapy seeks to correct negative behaviors by replacing them with healthier ones.Cognitive behavioral therapy emphasizes how a person's core beliefs influence thought patterns and in turn behaviors. Dialectical behavioral therapy is a mix of behavioral therapy and CBT that is adapted for people who experience emotions very intensely. Humanistic therapy emphasizes self-actualization. Psychodynamic therapy focuses on unconscious meanings and motivations. Integrative therapy involves adapting a treatment plan that incorporates whatever aspects of the other types of therapy that meets the patient's needs.

We identified six databases in which we could identify published meta analyses: PubMed, PsychINFO, Cochrane Library, Web of Science, and Scopus. We decided to exclude Google Scholar because of our desire to focus on published, mainstream research. In each database, we selected articles using the following title and abstract search:

("talk therapy" OR "psychotherapy" OR "counseling" OR "CBT" OR "cognitive behavioral therapy") AND ("adolescents" OR "teenagers" OR "youth") AND ("meta-analysis" OR "systematic review" OR "review article").

The number of results per database are summarized in Table E1.

After removing duplicates, this search process resulted in 3,338 unique articles. We screened the title and abstracts of these 3,338 articles to find meta-analyses that focus on the impact of talk therapy on the well-being of adolescents. Thus, meta-analyses built around the treatment of some

Table E1: DATABASE SEARCH RESULTS

Platform	Number of articles
PubMed	614
PsycINFO	28
Cochrane Library	77
Web of Science	454
SCOPUS	3,033

pre-existing diagnosis were removed. Specifically, we removed from these 3,338 articles those that focus on substance abuse, gambling, physiological conditions including obesity, sexual behaviors, pre-existing medical or mental health conditions, and pharmacological, music, movement or non-talk therapy treatments. This leads us with 249 remaining studies.

We then attempted to download the remaining 249 studies for manual screening. 90 of these studies were inaccessible, and 41 were screened out as false inclusions, leaving a sample of 113 studies to analyze.

We then trained an LLM to evaluate these 113 studies. A few interesting points stand out in the resulting data:

- A total of 3,330 (non-unique) studies are referenced across these meta-analyses.
- 67 out of 113 report uniformly positive effects of talk therapy
- 22 of the 113 emphasized methodological problems with the studies they discussed, usually the absence of a control group
- 8 of the 113 discussed CBT treatments. 6 of those 8 emphasize uniformly positive results of CBT on outcomes
- 2 of the 113 consider school attendance related outcomes. 1 focuses on school-based social work interventions

F Variable Definitions

F1 Treatment-related

- **Therapy Experience (Formerly "Psychosocial treatment" in PAP):** Child has received psychosocial treatment: This is an indicator that takes value 1 if the child reports having been visited in the home by a therapist and when describing the topics covered in those visits check at least one item that is in the domain of CMC's psychosocial treatment sessions.
- **Received Therapy:** Variable that is one if, according to administrative records, a student received at least one therapy session.
- **Number of sessions:** A variable indicating the number of therapy sessions a student received, per administrative records. From this variable, two indicators are created:
  - *Received 6 sessions:* Indicator that is one if the student received at least 6 therapy sessions.
  - *Received 4 sessions:* Indicator that is one if the student received at least 4 therapy sessions.

F2 Indexes

- **Psychosocial Distress Index (PDI) (Formerly "Mental Health Presentation Index" in PAP):** A standardized index based on:
  - **GAD-7 Score:** We measure anxiety using the 7-item Generalized Anxiety Disorder (GAD-7) questionnaire, which captures the frequency with which the adolescent has experienced the most common symptoms of anxiety in the past 2 weeks. The overall GAD-7 score is the sum of the scores of each individual response.
  - **PHQ-8 Score:** We measure depression using the 8-item Patient Health Questionnaire (PHQ-8), which captures the frequency with which the adolescent has experienced the 8 most common symptoms of depression in the past 2 weeks. The overall PHQ-8 score is the sum of the scores of each individual response.
  - **Caregiver's assessment of the adolescent's mental health:** The adolescent's caregivers are asked a series of 5 questions on their perception of their child's mental well-being. This variable is the sum of the scores for each individual response.

  From each component, three sub-indexes are created out of the individual questions of each component of the PDI.

  - **Anxiety Index:** Standardized index based on the 7 questions from the GAD-7 questionnaire.
  - **Depression Index:** Standardized index based on the 8 questions from the PHQ-8 questionnaire.
  - **Caregiver Distress assessment Index (CDI):** Standardized index based on the 5 questions from the caregiver assessment of the adolescent's mental health.

- **Emotional Skills Index:** A standardized index based on:
  - **Shared with friends:** Indicator that is one if respondent reports sharing general feelings of aspirations, joy, excitement, fears, anxiety, and stress with friends in the past two weeks.
  - **Restrained from sharing:** Indicator that is one if respondent reports they have not restrained themselves from sharing feelings with friends?
  - Responses to two statements measured on a 5-point Likert scale, where respondents indicate how true each statement is for them. The statements are as follows:
    * When something good happens to me, I have people who I like to share the good news with.
    * When I have a problem, I have someone who will be there for me.
  - **Healthcare to cope:** Indicator that is one if respondent reports that professional counseling or treatment/prescribed medication are a way to cope with feelings of depression, anxiety, or stress.
  - **Coping with mental health issues:** Indicator that is one if respondent reports multiple strategies to cope with feelings of depression, anxiety, or stress.
  - **Confidence:** Response by enumerator evaluating a respondent's confidence throughout the survey, measured on a 4-point scale.
  - Responses to three items of the GAD-7 questionnaire, which captures the frequency with which the adolescent has experienced the most common symptoms of anxiety in the past 2 weeks. These statements are:
    * Not being able to stop or control worrying
    * Becoming easily annoyed or irritable
    * Feeling afraid as if something awful might happen

- **Relationship to Parents Index:** A standardized index based on the following indicators:

  - Responses to three statements measured on a 4-point scale, where respondents indicate how true the statement is for them. The statements are:
    * When it comes to school, my parents are always telling me what to do
    * My parents don't explain why school is important
    * My parents don't seem to have enough time for me
  - Responses to three statements measured on a 5-point Likert scale, where caregivers indicate how much they agree with the statement. The statements are:
    * My child easily becomes angry at me
    * Dealing with my child drains my energy
    * My child is usually pleasant and helpful around the house

- **Relationship to Classmates Index:** A standardized index based on:
  - How many days a week respondent reports spending time with friends right after school
  - How many evenings a week respondent reports spending out with friends
  - Responses to four statements measured on a 5-point Likert scale, where respondents indicate how much they agree with each statement. The statements are:
    * The students in my class enjoy being together
    * Most of the students in my classes are kind and helpful
    * Other students accept me as I am
    * I feel safe in school
  - Responses to six statements about bullying, where respondents indicate how frequently they have encountered such situations. The statements are:
    * I was called mean names, was made fun of, or teased in a hurtful way
    * Other people left me out of things on purpose, excluding me from their group of friends or completely ignoring me
    * Other people told lies or spread false rumors about me and tried to make others dislike me
    * I was bullied with mean names and comments about my caste, ethnicity, or religion
    * Other people made sexual jokes, comments, or gestures to me
    * I have taken part in bullying another person
  - The number of people respondents report considering close friends that are not members of their family

  - How often respondents report talking with friends on the phone, through text messages, or have contact with them through the internet
  - How true the statement "I have friends that I really care about" is for the respondent, measured by a 5-point Likert scale

- **Healthier Habits Index:** A standardized index based on:
  - Responses to two statements where respondents indicate how true a statement is for them, as measured on a 4-point scale. The statements are:
    * I work very hard on my schoolwork
    * When I'm home, I just act as if I'm studying
  - Number of hours respondents report they studied/did schoolwork in the last two weeks
  - Responses to four statements measured on a 5-point Likert scale, where respondents indicate how true each statement is for them. The statements are as follows:
    * I finish whatever I begin
    * I keep at my schoolwork until I am done with it
    * Once I make a plan to get something done, I stick to it
    * I am a hard worker
  - Indicator that is one if enumerator reports respondent had a clean face and hands
  - Indicator that is one if enumerator reports respondent had clean fingernails
  - Responses to two items of the PHQ-8 questionnaire, which captures the frequency with which the adolescent has experienced the most common symptoms of depression in the past 2 weeks. These statements are:
    * Trouble falling or staying asleep, or sleeping too much (i.e., due to nightmares)
    * Poor appetite or overeating

- **Perspective on Life Index:** A standardized index based on:
  - Response to the question "How do you feel about school at present" measured on a 4-point scale
  - **Cantril's Ladder:** The respondent is asked to rate the quality of their life at the present time on a scale of 0 (worst possible life) to 10 (best possible life).
  - Response to PHQ-8 statement "Feeling bad about yourself – or that you are a failure or have let yourself or your family down"

  - Responses to nine statements measured on a 5-point Likert scale, where respondents indicate how true each statement is for them. The statements are:
    * I am optimistic about my future
    * I feel happy
    * I have a lot of fun
    * I love life
    * In uncertain times, I expect the best
    * There are people in my life who really care about me
    * I think good things are going to happen to me
    * I believe things will work out no matter how difficult they seem
    * I am a cheerful person
  - **Post-secondary aspirations:** Indicator that is one if respondent reports wanting to complete education beyond Grade 12

- **Mental Health Attitudes Index:** A standardized index based on:
  - Responses to two statements measured on a 5-point Likert scale, where respondents indicate how much they agree with each statement. The statements are:
    * I would willingly be friends with someone who has received mental health treatment
    * Solving mental health problems is in your control, unlike physical illness such as fever, where you seek external help from a doctor/healer
  - **Sought care:** Indicator that is one if respondent has ever sought out help for their mental health

- **Digit Span Index:** A standardized index based on:
  - **Forward digit span score:** Adolescents are given a string of digits and asked to replicate the digits in the same order. The first string length is 2 digits, and the adolescent will be given 2 sets of such strings. If the adolescent is able to correctly replicate one of the two strings, they will be given a new string longer by one digit. The task will end when the adolescent is unable to replicate either of the two strings for a particular string length. The forward digit span score is the longest span correctly recalled in this task. If an adolescent fails to recall the 2 digit string, their score is 0.
  - **Backward digit span score:** Adolescents are given a string of digits and asked to replicate the digits in the reverse order. The first string length is 2 digits, and the

adolescent will be given 2 sets of such strings. If the adolescent is able to correctly replicate one of the two strings, they will be given a new string longer by one digit. The task will end when the adolescent is unable to replicate either of the two strings for a particular string length. The backward digit span score is the longest span correctly recalled in this task. If an adolescent fails to recall the 2 digit string, their score is 0.

  - **Ordered digit span score:** Adolescents are given a string of digits and asked to replicate the digits in ascending order. The first string length is 2 digits, and the adolescent will be given 2 sets of such strings. If the adolescent is able to correctly replicate one of the two strings, they will be given a new string longer by one digit. The task will end when the adolescent is unable to replicate either of the two strings for a particular string length. The ordered digit span score is the longest span correctly recalled in this task.

F3 Individual Characteristics

- **Female:** Student is classified as female based on data from administrative records.
- **Age:** Student age according to administrative records.
- **Dropout risk:** Student risk of dropping out (high, medium, low) based on a teacher survey.
- **Current grade:** Grade of last year of the school attended by student at baseline.
- **Behind grade-for-age:** Indicator that is one if a student was not in the expected grade for their age at baseline.
- **Completed baseline:** Indicator that is one if student has a completed baseline survey.
- **Completed endline:** Indicator that is one if student has a completed endline survey.
- **Completed both surveys:** Indicator that is one if student has completed both a baseline and endline survey.
- **Baseline Mental Health Flag:** Indicator that is one if student presents at baseline as having a possible major depressive disorder or anxiety disorder. These are defined based on having either a PHQ-2 or GAD-2 score greater than or equal to three.

F4 Attendance-related

- **Any school attendance:** Indicator that is one if the student reports attending school at least once in the past 2 weeks.

- **Does not report missing school:** Indicator that is one if the student reports not missing any school in the past 2 weeks.

- **Attendance rate, subject:** This is the ratio between the number of days that the adolescent attended school to the number of days that the school was open in the past 2 weeks, as reported by the student. Students not currently enrolled and that report not attending school have an attendance rate of zero. If the student reports that in the past two weeks the school was not open, this ratio is missing.

- **Attendance rate, caregiver:** This is the ratio between the number of days that the student attended school to the number of days that the school was open in the past 2 weeks, according to the student's caregiver. Students not currently enrolled and whose caregivers report did not attend school have an attendance rate of zero. If the caregiver reports that in the past two weeks the school was not open, this ratio is missing.

- **Attendance rate, admin:** This is the ratio between the number of days that a student attended school to the number of days that school was open in the past 2 weeks, according to administrative records. Students not currently enrolled and who did not attend any day have an attendance rate of zero. If in the past two weeks the school was not open, this ratio is missing.

G PAP Reconciliation

Table G1: CONCEPTUAL

Pre-Specified Approach	Deviation	Rationale
Focus on understanding why therapy impacts education	Focus on how therapy improves mental health	Therapy does not appear to affect educational outcomes in our setting. This led us to investigate whether the therapy intervention had any effect on mental health, presumed to be the mechanism by which therapy could have influenced schooling. All pre-specified hypotheses regarding therapy's impact on schooling have been omitted from this paper, except where needed to illustrate the absence of any effect on schooling.
Variables aimed to test hypotheses about how therapy influences education	Variables aimed to understand how therapy influences mental health	Our literature review reveals channels through which therapy influences mental health, distinct from our earlier hypotheses regarding therapy's potential impact on schooling.
Heterogeneity analysis to understand whose education is impacted by therapy	Heterogeneity (pre-specified) to understand the impact of therapy on mental health by comparing individuals whose mental health differs at baseline.	The paper's refocused scope, along with the fact that nearly all other studies in the field target individuals with pre-existing mental health concerns, made this shift in focus logical.
Analysis of Educational Encouragement Intervention	Not in paper	This analysis was designed to understand how therapy affects education, which is no longer our primary focus. Moreover, we do not believe this intervention had any meaningful effect. Consequently, all pre-specified hypotheses regarding its effects have been omitted from this paper.
Primary analysis is intent to treat, compliers, and compliers with controls.	Primary analysis is aimed at impact on compliers.	Treatment effects appear to arise solely from receiving therapy. For brevity, we moved the intent-to-treat analysis to the appendix. Similarly, the analysis of compliers with controls was moved to the appendix to streamline the paper and address concerns about selection into baseline completion. These actions do not deviate from our pre-specified approach.
Standardized indexes unweighted by covariance	Weighted as in Anderson (2008)	Economic research norms have converged on the use of a weighted index. This change is not substantive.

Table G2: VARIABLE RENAMINGS (NO DEFINITION CHANGES)

Pre-Specified Approach	Deviation	Rationale
Psychosocial Treatment	Therapy Experience	We sought to differentiate this measure more clearly from "received therapy," which is based on administrative records.
Mental Health Presentation Index	Psychosocial Distress Index	Our pre-specified measure implied that higher values were better, when in fact higher values indicate worse outcomes. Renaming the measure clarifies this distinction.
Caregiver's assessment of the adolescent's mental health	Caregiver's Distress Assessment Index	The same reasoning applies here.
School attendance rate	Attendance rate, subject	More clearly identify the source of data.

Table G3: NEW VARIABLES (NOT IN PAP)

Deviation	Rationale
Emotional Skills	Based on our meta-analysis of therapy studies, a short-term mechanism for therapy to impact mental health is through helping patients navigate their emotions. This index aggregates the data we collected on emotional navigation.
Relationship to Parents	Based on our meta-analysis of therapy studies, a short-term mechanism for therapy to impact mental health is through improving patient relationships with parents. This index compiles the data we collected on child-parent relationships.
Relationship to Classmates	Based on our meta-analysis of therapy studies, a short-term mechanism for therapy to impact mental health is through improving patient relationships with classmates. This index combines the data we collected on child-peer relationships.
Healthier Habits	Based on our meta-analysis of therapy studies, a short-term mechanism for therapy to impact mental health is through improving healthy habits. This index consolidates the data we collected on personal health behaviors.
Perspective on Life	Based on our meta-analysis of therapy studies, a short-term mechanism for therapy to impact mental health is through enhancing patients' outlook on their lives. This index combines the data we collected on patient perspectives.
Mental Health Attitudes	Based on our meta-analysis of therapy studies, a short-term mechanism for therapy to impact mental health is through improving openness and attitudes toward mental health care. This index aggregates the data we collected on attitudes toward mental health and combines variables pre-specified in section 6.2.1 of our PAP except the pre-specified question of "Would you advise or encourage people to seek help..." which was not included in the survey.
Attendance rate, caregiver	Computed as pre-specified for "school attendance rate" except using only caregiver's responses about school attendance.
Attendance rate, admin	Computed as pre-specified for "school attendance rate" except using only school administrative records about attendance.
Received Therapy	We did not pre-specify an indicator for whether a child actually received therapy according to our administrative records. This omission was an oversight.
6+ Sessions	We did not pre-specify any measure of treatment intensity. This omission was an oversight.
4+ Sessions	We did not pre-specify any measure of treatment intensity. This omission was an oversight.

Deviation	Rationale
Number of Sessions	We did not pre-specify any measure of treatment intensity. This omission was an oversight.

Table G4: MODIFIED VARIABLES FROM PAP

Pre-Specified Variable	Deviation	Rationale
Skipped School	Does not report missing school	This is 1 - Skipped school as defined in PAP to be consistent with other variables in schooling tables where more is more attendance.
Mental Health attitudes index	Removed component	"Would you advise or encourage people to seek help or counseling for mental health" not available at endline.
Caregiver's mental health attitudes	Index/components not used in analysis	We do not have a direct hypothesis about how the impact of therapy on subjects would interact with parental attitudes about mental health care.
Moderate/severe anxiety/depression indicators	Similar to anxiety/depression indexes	These measures are captured by the depression and anxiety indexes.
Sought care/unmet care with anxiety/depression	Not used in analysis	Sought care is used as a component of the Mental Health Attitudes index, while depression and anxiety are measured by standardized indexes.
Functional limitations	All components used for other indexes	Sought care is a component of the Mental Health Attitudes index. Trouble sleeping is included in both the Healthier Habits index and the Depression index, while trouble concentrating is part of the Depression index. Not being able to stop worrying is included in both the Emotional Skills index and the Anxiety index, and being restless is part of the Anxiety index.
Self-care	Components used for other indexes	Respondent has clean face, hands and fingernails used in the healthier habits index. Clean breath not used as 99.6% of the sample is reported as having clean breath.
Anger evident	Not used in analysis	There is no variation in this variable. 99.6% of enumerators report respondents did not get angry during the interview.

Pre-Specified Variable	Deviation	Rationale
Self-reported well-being index	All components used for other indexes	The adolescent Cantril Ladder of Happiness and components of Happiness and Optimism are included in the Perspective on Life index, while components of Perseverance are part of the Healthier Habits index. For Connectedness, having someone to turn to for problems or to share good news are included in the Emotional Skills index, having someone who cares is included in the Perspective on Life index, and having a friend they care about is included in the Relationship to Classmates index. Engagement components did not fit into other categories based on the theory of change for therapy.
Enrolled	Not used as outcome, but used in creating attendance measures	Not used as an outcome given the shift of focus on the impact of therapy rather than determinants on schooling. Used to code attendance measures.
Schooling attitudes index	All components used for other indexes	Working hard on schoolwork, only pretending to study at home, and hours spent studying are included in the Healthier Habits index. Parents telling their child what to do regarding schooling is part of the Relationship to Parents index. Present feelings about school and post-secondary aspirations are included in the Perspective on Life index.
Caregiver aspirations for child index	Index or components are not used in analysis	Important for therapy's impact on education, but less so here.
Caregiver relationship with child index	Components concerning adolescent behavior used for other indexes	All inputs into this question included in relationship to parents index except for caregiver's own happiness which is not included in current analysis.
Child Perception of Parental Support	All components included in relationship to parents index	—
Friendship index	Components included in other indexes	Components on the number of days/evenings spent with friends, number of friends outside the family, and frequency of texting/calling friends are included in the Relationship to Classmates index. The number of times the respondent has shared feelings with friends and not restraining themselves from sharing feelings with friends are included in the Emotional Skills index.
In-school relationships index	Components included in the relationships to classmates mechanism index	—

Pre-Specified Variable	Deviation	Rationale
Bullying dummies	Components included in the relationships to classmates mechanism index	—
Safety Issues	Components included in other indexes	Feeling safe in school, agrees bullying is a problem in community, and frequency in seeing a person being bullied are included in the Relationship with Classmates index. Feeling safe traveling to school was not included as it does not fit into other categories for the theory of change from therapy.
Social support index	Components included in other indexes	Its components are safety issues, bullying dummies, in-school relationships index, and friendship index, which have been reorganized as described above.
Soft Skills index	Not used in analysis	Enumerator's assessment of respondent confidence is included in the emotional skills index, but other components did not fit into other categories for our theory of change from therapy.
Demographics (not Hindu, low caste, migrant, language)	Not used	In populated PAP. No value added to current discussion.
Baseline access to tech	Not used in analysis	In populated PAP. No value added to current discussion.