unicef for every child

EVALUATION

REPORT 3

Impact Feasibility Assessment of UNICEF Mental Health and Psychosocial Support interventions

Impact Evaluation Design, Demonstration Case

Magnificent Mei – Nepal

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Table of Contents

01 Motivation and intervention description 4

02 Impact pathways and key outcomes 6

03 Evaluation questions 7

04 Evaluation design 8

05 Key outcome indicators 10

06 Timeline 10

07 Data collection methods 11

08 Analysis methods 12

09 Estimated resources for data collection 13

01

Motivation and intervention description

Stage 3 of the Mental Health and Psychosocial Support (MHPSS) Impact Feasibility Assessment (IFA) proposes evaluation designs to serve as demonstration cases, showcasing how interventions implemented at various levels can be evaluated rigorously.

Specifically, the selected interventions for Stage 3 include one community-level intervention, one school-level intervention, and two individual-level interventions, of which one is a digital intervention. By offering these illustrative examples, the goal is to provide guidance for future impact evaluations in different countries with similar interventions. This demonstration case does not necessarily imply that an impact evaluation is being initiated; this will depend on continuity of the programme, will and opportunity.

The Magnificent Mei (Nepali version – Shandar Shanti) intervention in Nepal is a school-based intervention. It is a comic book series developed based on the Helping Adolescents Thrive (HAT) Toolkit on strategies to promote and protect adolescent mental health and reduce self-harm and other risky behaviours. Specifically it builds social emotional learning skills among adolescents and their caregivers in Nepal. The intervention is delivered by a cohort of 15 community-based psychosocial workers (CPSWs), with each session lasting approximately 40-60 minutes, during which the content from comics is utilized to initiate and facilitate discussions about adolescents' experiences and emotions. The CPSWs were trained before being deployed across 11 government schools in the region, tasked with equipping adolescents and their caregivers with the requisite skills to understand and navigate their emotional needs.

To design age-appropriate content, participating adolescents were divided into two groups: aged 10-14 years and aged 15-19 year. For the younger group, 13 sessions were designed around individual comic stories based on the adventures of 'Shandar Shanti', translated to Nepali from the UNICEF and World Health Organization series of 'Magnificent Mei' comics. These addressed a number of socio-emotional skills areas, including emotion regulation, problem-solving, interpersonal skills and assertiveness, among others. For the older group, the project developed 19 sessions that covered some of the same skill areas as the package for their younger peers, but also added other age-relevant issues, such as child marriage and resisting peer pressure to engage in substance abuse. Additionally, instead of comics, these sessions relied more on discussions, storytelling, and other activity-based sharing, to encourage participants to speak up about their feelings, analyse their sources of stress, and find healthy ways to manage stress.

In addition to working with adolescents, the project also has a component for caregivers, ensuring they have the knowledge and tools to create a supportive environment for their children. For this, a one-day session was organized for parents of all the children participating in the intervention roll-out, creating awareness about the importance of supporting their children and ways to do so. A key aspect was nurturing positive communication, tips to manage conflict, and help children through stressful times. They also learned ways to manage their own stress. Additionally, there is a teacher's guide available for the intervention to be delivered in schools.

The project is being piloted by UNICEF Nepal in partnership with the Transcultural Psychosocial Organization (TPO) Nepal, with funding support from the Zurich Foundation, in 17 schools in seven municipalities in Karnali province. In 2024, the programme plans to reach an additional 35,000 adolescents in this province.

Box 1

How was the Magnificent Mei intervention in Nepal selected?

The Magnificent Mei intervention was selected for Stage 3 of the Impact Feasibility Assessment via a standardized process consisting of: 1) an analysis of **country context** and 2) an **intervention mapping** of MHPSS programming supported by UNICEF in the 21 selected countries interviewed during Stage 2 of the MHPSS IFA.

Key considerations in the analysis of country context were aspects like the political interest and will from partners in generating evidence, prioritization of knowledge gaps, national data and evaluation capacity, as well as the state and burden of mental health in the country.

Key considerations in the intervention mapping include scale and scalability of programming, plans for future expansion, existence of previous impact evaluations, type of programming and humanitarian setting context.

The results of the assessment for Nepal were as follows:

- **Country context:** Nepal scored "high" in terms of country context; in fact, it had the highest overall prioritization score among all the countries included in the country context prioritization exercise. Strong political will, and great operational facilities for data collection were all reported, as well as very good national data availability. The evidence gap for mental health interventions in Nepal is high, specifically there were only two primary studies of MHPSS interventions from the UNICEF MHPSS Evidence and Gap Map. In addition, the total burden of mental health in Nepal is high, operationalized in terms of suicide rates and relative change in suicide rates among 15-19 years between 2000-2019. The country also reported a high degree of disruptions due to COVID-19.
- **Intervention mapping:** The Magnificent Mei intervention was considered a priority in Nepal, as it met all assessment criteria, including those around scale, future expansion, key thematic topics for high knowledge gain, humanitarian context, targeting caregiver mental health and parenting skills building, and no existing impact evaluation.

The Magnificent Mei intervention is one of four interventions short-listed as a priority for Stage 3 (alongside Benin, Brazil, and Papua New Guinea) for which impact evaluation plans are being developed.

For more information, see: Intervention mapping and analysis of country context for the Impact Feasibility Assessment of UNICEF Mental Health and Psychosocial Support interventions, Stage 2 (2024)

02

Impact pathways and key outcomes

The Magnificent Mei comic book intervention is aimed at encouraging students to share their issues and problem-solve collaboratively, where possible, by identifying healthy coping strategies. The intervention seeks to equip adolescents and caregivers with skills related to different aspects of emotional self-regulation, including stress management, conflict resolution, and identification of negative thoughts.

The key outcome of improved mental health is achieved through the pathways of promoting positive connections and life skills, as well as increased awareness, knowledge, and action around their own mental well-being.

The intervention targets social emotional learning outcomes and has reached 6,329 children and 1,034 caregivers as of September 2023 through its comic book series. The intent is to reach 50,000 children by the end of 2024.

The initiative received positive feedback from participating adolescents, caregivers, and schools. It was noted that adolescents were highly engaged with the material and found the comics to be an effective tool for encouraging young adolescents to explore and manage their emotions in a healthy manner. Additionally, equipping young individuals with relatable characters for role-playing in various relevant situations proved to be a valuable method for promoting social and emotional learning.

The Magnificent Mei intervention targets the overall outcome of improvements in mental health and psychosocial well-being of children and adolescents. This is done through the following pathways:

Pathway 1: Increased awareness of mental health issues among adolescents and increased motivation to take action to improve their well-being through the skills discussed in the comic book series.

Pathway 2: Increased capacity and skills for social emotional learning and self-regulation among adolescents, including stress management, conflict resolution, thought identification, leading to improved functioning and well-being.

Pathway 3: Improved parent-child relationships due to the parenting modules of the intervention as well as content on positive relationships and home environment in the comic book series.

The intervention has reached

6,329 **children**

1,034 **caregivers**

03

Evaluation questions

The quantitative impact evaluation will seek to answer the following main evaluation question:

- Does Magnificent Mei lead to an improvement in overall mental health and psychosocial well-being of adolescents?

In addition to this main evaluation question, it will be important to determine the effect of the intervention on the intermediate outcomes to investigate the mechanisms suggested in the intervention logic:

- Does Magnificent Mei lead to increased mental health awareness and action among adolescents?
- Does Magnificent Mei lead to an improvement in social emotional learning outcomes of adolescents?
- To what extent does Magnificent Mei lead to an improvement in self-regulation, including stress management, conflict resolution, and identification of negative thoughts in adolescents?
- To what extent is classroom-based story telling effective? Could online videos, radio drama be equally effective?

In addition to answering the above questions, it will be important to investigate the "for whom does it work?" question by separately estimating effects for girls and boys (*subgroup analysis*). As the intervention sessions differ across two adolescent age groups (i.e., aged 10-14 years and aged 15-19 years), the above listed evaluation questions will be investigated separately for these two groups as well.

Furthermore, qualitative data can be collected to further understand how the intervention works and investigate questions regarding its implementation and relevance to the needs of the targeted population.

Key research questions are as follows:

- Was Magnificent Mei delivered as planned in terms of adherence to content, coverage, frequency, duration and quality? For example, did the facilitators' delivery of sessions on parenting skills development follow best practices? (*Implementation fidelity*)
- How is parents' participation in the programme? How can it be improved? (*Compliance*)
- What are the factors influencing the achievement/non-achievement of the programme outcomes? Are there internal (e.g., robustness of design) and external (e.g., operational context) factors contributing to the effectiveness of intervention? How? (*Effectiveness*)
- Would there be a more efficient way to deliver the sessions? (*Efficiency*)
- How do the separate sessions contribute to the improvement in the intermediate outcomes? (*Understanding impacts*)
- Is the programme suitable to meet the needs and characteristics of the targeted population? Are there emerging topics/ issues to be addressed? (*Relevance*)
- To what extent are CPSWs (disaggregated by gender) able to impart socio-emotional learning in adolescents? How do they fare compared to teachers? And compared to peer supporters?

More detailed questions should be developed/revised in collaboration with the programmatic team and other stakeholders, following the further detailing of the Theory of Change (ToC) and finalization of evaluation design.

04 Evaluation design

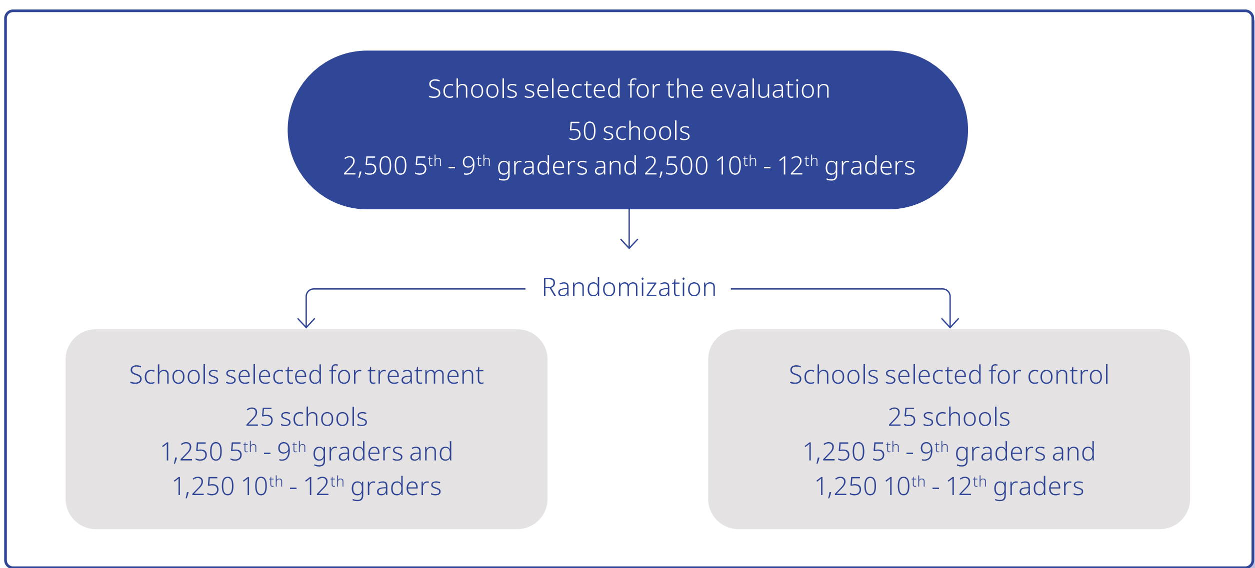
The suggested evaluation primarily aims to establish the causal effects, by testing whether the intervention *causes* any changes in the targeted outcomes.

Two initial options for conducting a high-quality impact evaluation were suggested for the intervention. These options should be further discussed with the country office, especially to ensure how an impact evaluation can be integrated into the existing programme with as little disruption as possible.

A school-based cluster randomized control trial (RCT)

A first viable option is to utilize the schools for setting up the trial. The schools can be randomly assigned into treatment and control groups. This design will allow for identifying the impact of the programme across different adolescent age groups as well. The design will ideally cover a minimum of 25 control schools and 25 schools with the Magnificent Mei intervention assuming a small-to-medium effect size. The total sample of adolescents should be determined but will likely be 100 fifth and ninth graders and 100 tenth and twelfth graders per school, amounting to a total of 5,000 adolescents.

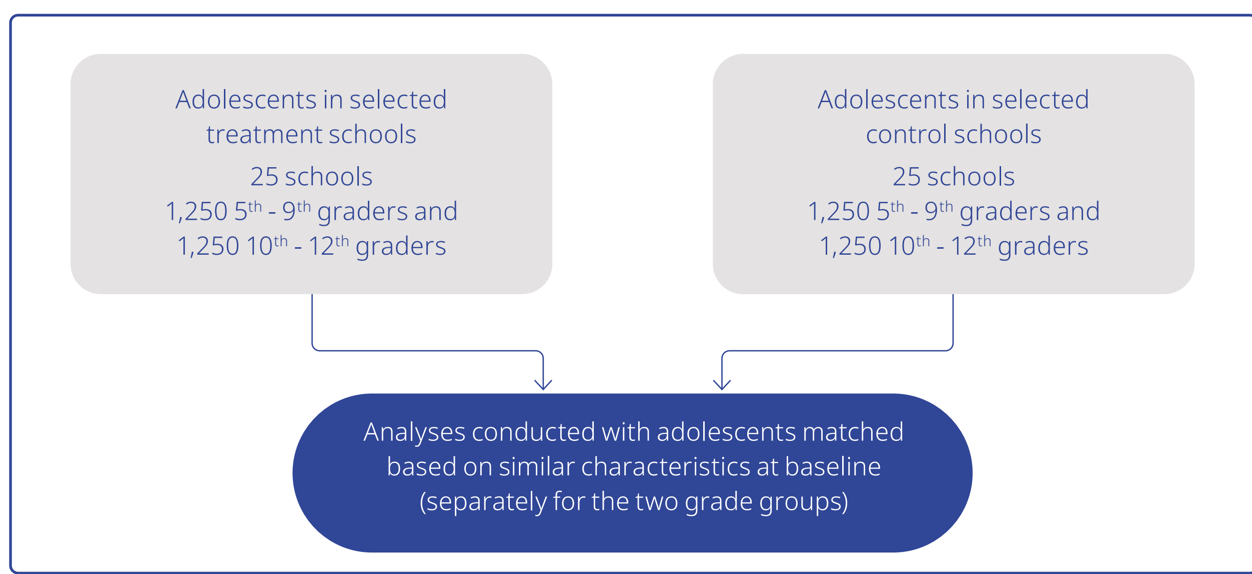
Figure 1. A randomized control trial (RCT) at the school level



A quasi-experimental, matched difference-in-differences design

In the case where it is determined that selection of some treatment and control schools cannot be done randomly, or if the timing does not allow for randomization, another option for the evaluation design is a quasi-experimental method. In this case, control schools that have similar characteristics as the treatment schools, especially regarding factors that may influence the targeted outcomes (e.g., socio-economic status of students), will be identified. The sample size for this design will depend on several factors but must be more than the sample size required for an RCT. To demonstrate the need for a high sample size in a matched design, a sample size doubling up the control group sample size is tentatively suggested in the RCT design, as depicted in Figure 2 (i.e., a total sample size of 7,500 adolescents for the matched design). As with the above design, ideally the baseline survey would include this needed sample size, with only those who best match kept into the study for subsequent follow-ups.

Figure 2. A quasi experimental, matched design



05

Key outcome indicators

The primary outcome indicators to measure are directly related to the intervention ToC. The targeted outcome variable is the mental health well-being of adolescents. But it is also important to measure the intermediate outcomes which are mental health awareness and action among adolescents, social emotional learning outcomes, and self-regulation, including stress management, conflict resolution, and identification of negative thoughts. These will be measured at the individual adolescent level for the two age groups.

For each of these outcomes, culture and age appropriate, valid and reliable measures should be included. As the study requires data collection from two age groups, if researchers would like to use same measures for both groups, measurement invariance across different age groups (i.e., whether the same construct is measured equally in different age groups) should be considered when selecting these tools and tested for during data analyses. Since the key indicators align with the evaluation questions, target sample, and will be tailored to the unique evaluation plan, they will undergo additional refinement in a subsequent phase of the evaluation plan.

06

Timeline

Quantitative baseline data collection would ideally start in early 2025, using follow-up surveys (with the same adolescents at baseline) conducted during time periods to be determined (e.g., likely a short-term follow-up at three months and a longer-term follow-up at one year). Qualitative data collection would occur during the same period as the quantitative survey. The full timeline for the study would be approximately between 2025 and 2026.

07 Data collection methods

The primary data collection methods for this study will be individual surveys.

These will include both quantitative and qualitative methods, with the former collected longitudinally at three main points in time from the adolescents. In both suggested designs, adolescents will be surveyed before the intervention begins and followed longitudinally over time. Appropriate survey questions and instruments, as well as ethical protocols, will be developed and implemented to ensure data collection follows ethical requirements. Parental informed consent and adolescents' assent will be obtained before the data collection.

Qualitative methods to be used include semi-structured key informant interviews (KIIs) with program implementers and other stakeholders; and focus group discussions (FGDs) with adolescents and their parents.

08

Analysis methods

Statistical methods should be employed to determine if there are differences between the treatment and comparison groups.

The most common statistical analysis used with a randomized design is regression analysis. The subgroup analyses (e.g., to estimate whether there are differential effects for fathers and mothers) will be employed through building interactions into the regression models. Even though randomization is assumed to achieve balanced (i.e., similar) treatment and control groups at baseline, further analyses will be conducted to test potential baseline imbalance across groups at baseline; if groups are detected to be significantly different at certain characteristics at baseline, those characteristics will be controlled during the final analyses (i.e., through adding them as covariates into the regression model).

In the case of the quasi-experimental matched design, statistical matching methods will be employed. It is important to recognize the limitation that a matched comparison group can only be balanced on observable characteristics, posing a risk of differences in unobservable characteristics and introducing bias into the overall estimates of the programme's effects. While collecting comprehensive data helps mitigate this risk, complete elimination is not feasible. Using a matched design requires high-quality data on observable characteristics for treatment and comparison groups, with for instance the propensity score matching (PSM) technique ensuring similarity. Two conditions, conditional independence and common support, are crucial for confidently estimating programme effects based on matched data. This involves including all baseline measurements of variables affecting the probability of treatment and selecting comparison groups closely matched to ensure compatibility within the same distributions. Conducting common support tests and balance tests is essential to verify the appropriateness of the matching process in creating a suitable comparison group.

Qualitative data will be analyzed following an evaluation matrix, in which all evaluation questions are matched with the appropriate data source and data collection method. Regarding the evaluation questions on understanding how impact occurs, qualitative methods such as contribution analysis can be used.

09

Estimated resources for data collection

Ideally, a professional firm should collect evaluation data.

Costs associated with data collection usually cover the development of a study protocol, ethical review, creation of survey instruments (including translations), pre-testing, enumerator training, survey coding, data collection, data cleaning, and translation/transcription for qualitative data. Human resources often constitute the majority of data collection budgets. Quantitative data collection teams may comprise 20 to 40 enumerators, if adolescents will be interviewed individually, undergoing two weeks of training and pretesting. If surveys are distributed in class and self-administered by the adolescents, then the number of field staff will significantly decrease and data collection will be completed in a shorter period; however, note that children aged 10 years, especially from low-socioeconomic status background, or ethnic minority adolescents with language barriers may experience difficulty in self-administering a survey.

In contrast, qualitative data collection teams are typically smaller (six to eight interviewers), spending shorter periods collecting data (one to two months), but dedicating more time to transcribing and translating interview and focus group narratives. Estimates are as follows:

- **Quantitative data:** For a survey of 50 schools, with 100 students per school (total of 5,000 adolescents) data collection takes place in schools = US$125,000 per wave = $US375,000 for three survey waves.
- **Qualitative data:** For data collection including KIIs with key stakeholders and FGDs with adolescents and parents = US$40,000 for one data collection wave.

Thus, the estimated cost for a three-wave quantitative and one-wave qualitative data collection is around **US$415,000**. It is important to note that these costs are approximate and contingent on factors such as the geographic dispersion of schools/provinces (sample), the quality of the hired data collection firm, survey timing, and other variables. Adjustments in costs, either up or down, may be necessary based on the number of survey waves or study arms. The scope of each data collection could also be modified according to priorities or budgets, including additional components or questions. It is crucial to highlight that these costs exclude labour time for international or national principal Investigators, as well as expenses for analysis, dissemination, or publication of study findings.

Intervention website, documents and materials links

Comic Book Series
https://www.who.int/publications/i/item/9789240026285

Teacher's Guide
https://www.who.int/publications/i/item/9789240026261

Blog on UNICEF Nepal's website
https://www.unicef.org/nepal/stories/helping-children-and-adolescents-navigate-life-and-learning

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