THE KEY INGREDIENTS OF SUPPORTING CONFLICT-AFFECTED CAREGIVERS: A RANDOMIZED CONTROLLED TRIAL WITH MEDIATION ANALYSIS

Analysis Plan, Version 1.0

September 21, 2025

SECTION 1. ADMINISTRATIVE INFORMATION

1. Title and registration

The key ingredients of supporting conflict-affected caregivers: A randomized controlled trial with mediation analysis. This trial was registered on ISRCTN on January 27, 2025: ISRCTN89294864.

2. SAP Version: 1.0, September 21, 2025

3. Protocol version: 1.0, August 13, 2024

4. SAP revisions

None

5. Roles and responsibility

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6. Signatures of person writing the SAP, senior statistician responsible, and chief investigator/clinical lead

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SECTION 2. INTRODUCTION

This statistical analysis plan describes procedures for analyzing data from a randomized waitlist-controlled trial of the BeThere intervention on parenting in South Sudan. Relevant study design details are provided below followed by a detailed description of the statistical analysis approach. This analysis plan only covers the quantitative data analyses and excludes the qualitative analysis approach. Analyst and PI will remain masked to study condition until primary analyses have been completed.

The analyses described below will inform the development of two scientific manuscripts: 1) Effectiveness of the BeThere intervention on primary and secondary outcomes; and 2) Mediators of the effects of the BeThere intervention on child wellbeing and caregiver outcomes.

7. Background and rationale

Parenting interventions in conflict-affected settings have often assumed that poor parenting stems mainly from a lack of knowledge or skills. However, research shows that caregiver stress and mental health challenges—driven by war exposure and daily stressors—play a central role in sub-optimal parenting. The family stress model highlights how caregiver wellbeing mediates the impact of conflict on parenting, with negative consequences for children's psychosocial health. Studies further show that caregivers themselves are frequently perpetrators of abuse in emergencies, and that caregiver mental health is directly linked to child mental health outcomes among conflict-affected and displaced populations.

To address these interconnected factors, War Child developed *BeThere*, a nine-session preventive group intervention for caregivers of children aged 3–14 affected by armed conflict and forced migration. Grounded in the family stress model, the program combines parenting support with a strong focus on caregiver mental health. The first four sessions emphasize caregiver mental health and stress management, followed by sessions on positive parenting in adversity, with a final review session. Through this dual focus—building evidence-based parenting skills and strengthening caregiver mental health—*BeThere* seeks to improve both parenting practices and child wellbeing.

8. Objectives

The overall objective of this study is to evaluate the effectiveness of BeThere for improving parenting behaviors and child wellbeing in Bor County, South Sudan The research objectives are as follows:

Primary Objectives

1. To evaluate the effectiveness of the BeThere intervention in improving parenting among participating caregivers in a fully-powered trial in South Sudan
2. To evaluate the effects of the BeThere intervention on participating caregivers' children using child-reported outcomes among a subsample of children aged 7-14.
3. To estimate the indirect effect of the BeThere intervention via caregiver wellbeing, caregiver distress, caregiver stress, and parenting on child wellbeing.

Secondary Objective

4. To assess the effect of group cohesion among beneficiaries in the BeThere intervention group on caregiver wellbeing and distress

SECTION 3: STUDY METHODS

9. Trial design

The study is a two-armed, parallel-group randomized controlled effectiveness trial with a waitlist control comparing a novel parenting intervention, BeThere, with waitlist control (control intervention)
The trial is unblinded, in that both the study subjects and field workers delivering the intervention will know the treatment allocation. The trial statistician and PI of the study will be blind to treatment allocation until such a point in the primary analysis when this becomes impossible. DMEC reports for the closed sessions will be produced partially blind.

The study is conducted in South Sudan, a country that has suffered through decades of armed conflict. Bor County, located in Jonglei State, experienced extreme levels of violence during the Second Sudanese Civil War and the South Sudanese Civil War. Bor County is primarily home to the Nilotic Dinka tribe and is a region that is vulnerable to floods. It consists of six payams, including Bor Town – the urban center, which is home to a mix of tribes from Jonglei State and South Sudan. In 2014, Bor Town was destroyed, resulting in the displacement of approximately 50,000 people. The five other payams – Kolnyang, Anyidi, Makuach, Baidit, and Jalle – are rural areas. This project takes place in five villages/bomas within Kolnyang, Anyidi, and Makuach: Pariak, Ghoi, Taragok, Tibek, and Lenguet.

The trial sample comprises caregivers living within these five villages who consent to participate and are randomised into the BeThere trial. Any non-randomised participants included in the Bethere or waitlist control are not part of the trial sample but will be recorded in the database. The randomised trial sample is the Intention to Treat (ITT) population. For the intention to treat analysis, subjects will be analysed according to the treatment group to which they were randomised, regardless of eligibility (inclusion/exclusion) error, post-randomisation withdrawal, and whether the correct study intervention/treatment was received etc.

10. Randomization

Households were randomized to BeThere or the waitlist control after caregivers completed the baseline assessment. A block randomization design was used where the total target sample size (n=960) was divided equally across the five study communities, resulting in recruitment of 192 caregivers per community allocated to the BeThere intervention or waitlist control.

Randomization followed a participatory procedure successfully implemented in prior RCTs. At baseline, after completing questionnaires, one caregiver per family drew a piece of colored paper (yellow or green) from an opaque bag with equal distribution, ensuring balance across groups. One of the chiefs in each community then flipped a coin to determine which color corresponded to *BeThere* versus waitlist control. This process was repeated in each study community to maintain equal allocation across sites. The two-step method was designed to enhance transparency and community acceptance; previous studies using this approach showed no baseline imbalances and high follow-up rates in both arms.

Within families, a single index child aged 3–14 was randomly selected using a die-rolling procedure, proportionate to the number of eligible children. If the selected child was 7–14 years old, and both caregiver and child provided consent/assent, the child completed their own assessments at baseline, endline, and follow-up. Group assignments and index child selections were recorded in a master list maintained securely in War Child offices, with access restricted to the scientific and research coordinators.

11. Sample size

Sample size calculations were conducted using a joint significance estimator for indirect effects. Assuming a two-sided alpha of 0.05, an intervention–mediator error correlation of 0.2, mediator SD of 0.2, and error SD of 0.5, a sample of 425 caregivers per arm was sufficient to detect a mean difference of 0.4. Allowing for 10% attrition, the study aimed to enroll 960 caregivers (at least 480 families) and 400 index children across 40 intervention groups, providing adequate power to test multiple mediator models. In the end, we enrolled 956 caregivers and 328 index children.

12. Framework

The objective of the study has a superiority hypothesis testing framework. It aims to show the superiority of BeThere relative to the waitlist control condition on primary and secondary outcomes. In addition, through mediation analyses, this study aims to identify the mechanisms through which BeThere exerts an effect on child wellbeing.

13. Statistical interim analyses and stopping guidance

No interim analyses of study outcomes were planned or conducted. The Data Safety Management Committee reviewed adverse events throughout the study implementation and were responsible for determining whether any actions were required to reduce risk to study participants.

14. Timing of final analysis

All analyses will be conducted after completion of data collection for the trial. The statistician and PI will be masked to study condition during data collection, cleaning, and the primary effectiveness analyses. Secondary analyses examining mediators that relate to intervention group characteristics (e.g., BeThere Mechanism of Action, Group Cohesion) or require analysis of intervention midline assessment data will be conducted after effectiveness analyses are finalized to preserve masking.

15. Timing of outcome assessments

Data used for this study will be collected by research assistants at baseline, midline (BeThere session 5), endline (within 2-3 weeks following session 9 or approximately 10-12 weeks post-enrollment), and follow-up (12 weeks after completion of the final session or approximately 22 weeks post-enrollment). The midline assessment was only administered to the experimental (i.e., BeThere) group and not to the waitlist control group.

SECTION 4: STATISTICAL PRINCIPLES

16. Level of statistical significance

A significance level of α=0.05 will be applied.

17. Adjustments for multiplicity

We do not plan to adjust for multiple testing.

18. Confidence intervals

Results will be presented as coefficients and 95% CIs.

19. Adherence and protocol deviations

Participant adherence to the intervention will be measured using intervention session attendance records. Completion of the intervention will be defined as having attended seven or more sessions. We will report the mean (SD) and median (IQR) number of sessions attended in the BeThere group.

Facilitator fidelity to the intervention will be measured using a fidelity checklist. We will report the mean (SD) and median (IQR) scores on the fidelity checklist as an indicator of trial implementation quality.

Any major deviations from the protocol will be reported in the main outcomes paper.

20. Analysis populations

The primary analysis will be conducted on the intent-to-treat sample, meaning that all participants will be included and analyzed as randomized. No enrolled participants were excluded from the main analytic sample. We will also conduct a per protocol analysis including waitlist control participants who completed all assessments and did not participate in any BeThere intervention components and only BeThere intervention participants who completed seven or more intervention sessions and did not drop out of the study.

SECTION 5: TRIAL POPULATION

21. Screening data

There were no diagnostic no clinical screening criteria for admission into the study.

22. Eligibility

The study aimed to enroll 960 caregivers and 400 children in Bor Country, South Sudan. Families were randomized to the BeThere intervention or waitlist control with 1:1 allocation and it is possible that more than one caregiver per family participated in the intervention. Randomization at the family-level ensured that caregivers from the same family were allocated to the same study arm. Individuals were eligible for the trial if they were:

1) Primary caregivers of children aged 3-14 years;
2) fluent in Dinka;
3) Living in Pariak, Ghoi, Taragok, Tibek, or Lenguet communities in Bor Country, Jonglei State, South Sudan; and 4) Willing to participate and commit to all nine sessions of BeThere.

For households with more than one caregiver, all caregivers must be willing to participate in order to be included. Individuals were excluded if they were less than 18 years of age, had participated in either a parenting or stress management intervention within the last six months, did not have a child aged 3-14 years, were unable to complete the assessment, were no fluent in Dinka, or were unwilling to give informed consent. One index child per household was randomly selected. If the selected index child was 7-14 years of age, they were also enrolled in the study and completed child-reported assessments at baseline, endline, and follow-up. If the index child was between 3-6 years of age, they did not complete an assessment. However, their caregivers were still enrolled and participated in study assessments. Not all households had more than one caregiver and/or an index child between the age of 7-14 years who agreed to participate.

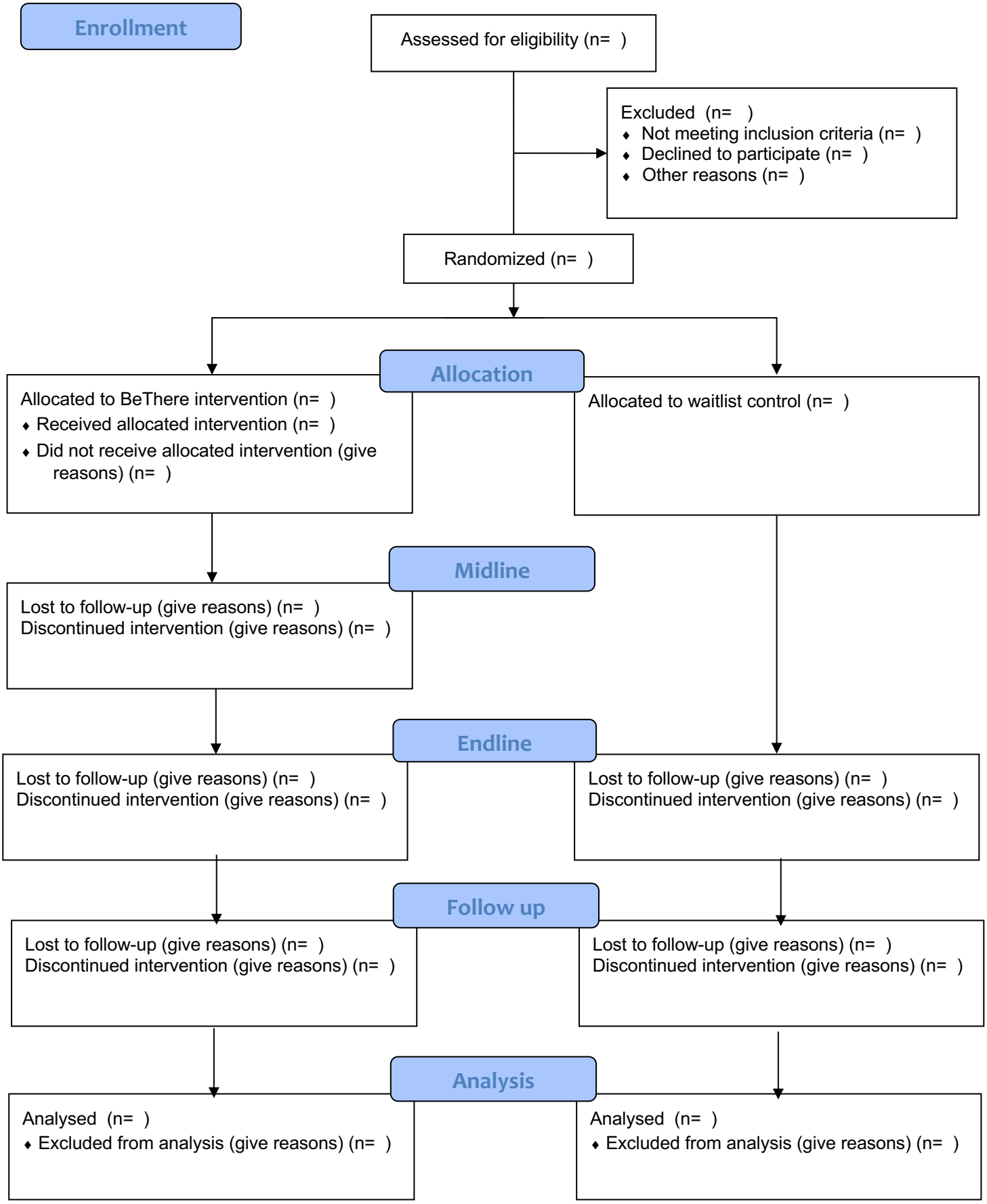
23. Recruitment

Participants were recruited through community-based organizations, chiefs, and existing networks with whom War Child had established relationships. Recruitment methods included flyers, awareness sessions, door-to-door outreach, and word of mouth, and continued until the target of 192 participants per location was reached. Strategies used successfully in the pilot RCT were applied to engage male caregivers, such as scheduling around income-generating activities and tailoring messaging to their interests.

24. Withdrawal and loss to follow-up

Data on withdrawal and loss to follow-up will be reported in the CONSORT diagram in the main outcomes paper, including reported reasons for withdrawal, if known (see Figure 1).

Figure 1. CONSORT 2010 Flow Diagram



25a. List of baseline characteristics to be summarized (see appendix)

- Location/study community
- Caregiver age
- Caregiver gender
- Caregiver nationality
- Caregiver marital status
- Caregiver highest level of education
- Caregiver employment status
- Caregiver housing type
- Caregiver financial situation
- Number of children
- Household size
- Relationship of caregiver to the index child
- Child age
- Child gender

25b. How baseline characteristics will be descriptively summarized

We will describe the distribution of demographic characteristics as well as primary and secondary outcomes at baseline using measures of central tendency in the overall sample and stratified by intervention group (see appendix). Baseline comparisons will be descriptive, and no statistical significance tests or confidence intervals will be calculated for the difference between randomized groups on any participant level baseline variables. The randomization of participants to intervention groups means that any imbalance over all measured and unmeasured baseline characteristics is by definition due to chance.

SECTION 6: ANALYSIS

26. Outcome definitions

Data used for this study will be collected by research assistants at baseline, midline (following session 5; BeThere group only), endline (10 weeks post-enrollment), and follow-up (22 weeks post-enrollment). The midline assessment was only administered to the experimental (i.e., BeThere) group and not to the waitlist control group. The primary outcome for this study is parenting. Secondary outcomes include caregiver psychological distress, caregiver stress, caregiver psychosocial wellbeing, and child psychosocial wellbeing (child- and caregiver-reported).

The measures – including outcomes, mediators, and implementation variables - and how they are operationalized and measured are described below.

Primary outcome

- **Parenting (caregiver-reported; primary outcome(s)):** Total score on a 24-item parenting scale developed to assess change in parenting. The total score combines subscales assessing parental warmth and sensitivity (17 items) and harsh parenting (six items). Parenting was assessed at baseline, endline, and follow up. Caregiver-reported parenting at endline will be considered the primary effectiveness outcome for the study.

Secondary outcomes

- **Parenting (child-reported; secondary outcome):** Total score on a 24-item parenting scale developed to assess change in parenting. The total score combines subscales assessing parental warmth and sensitivity (17 items) and harsh parenting (6 items). Child-reported parenting was assessed at baseline, endline, and follow up. The child does not report separately on multiple caregivers.
- **Caregiver psychological distress (secondary outcome):** Total score on the 10-item Kessler Psychological Distress scale. Caregiver psychological distress was assessed at baseline, midline, endline, and follow up.
- **Caregiver stress (secondary outcome):** Total score on the 18-item caregiver stress measure developed by War Child. Caregiver stress was assessed at baseline, midline, endline, and follow up.
- **Caregiver psychosocial wellbeing (secondary outcome):** Total score on the 14-item Warwick-Edinburgh Mental Wellbeing Scale. Caregiver psychosocial wellbeing was assessed at baseline, midline, endline, and follow up.
- **Child psychosocial wellbeing (caregiver-reported; secondary outcome):** Total score on the modified 25-item Kiddy-KINDL for Parents measure evaluating wellbeing specifically among the index child. A modified version of the KINDL for Parents was used that combines the Kiddy-KINDL (3-6 years) and Kid-KINDL (7-13 years) into a single measure. Child wellbeing was assessed at baseline, endline, and follow up.
- **Child psychosocial wellbeing (child-reported; secondary outcome):** Total score on the modified 25-item Kid-KINDL for Children. This measure is completed by index children ages 7-14 years only. Child psychosocial wellbeing was assessed at baseline, endline, and follow up.

Mediators

- **Group cohesion:** Total score on the 7-item Group Cohesiveness Scale. Group cohesion was assessed at midline, endline, and follow up.
- **Mechanisms of Action:** Total score on a 5-item measure developed to assess hypothesized mechanisms for the BeThere intervention (e.g., relaxation techniques, stress and anger management, positive parenting practices). Mechanisms of action were assessed at baseline, midline, endline, and follow up.
- **Caregiver psychological distress (see above)**
- **Caregiver stress (see above)**
- **Caregiver wellbeing (see above)**
- **Parenting (see above)**

Implementation variables

- **Attendance:** Number of sessions attended (participant-level; range: 0-9)
- **Facilitator competence:** ENACT score (12 of 15 items) measured post-training/pre-implementation and during training. We will operationalize facilitator competence as the % of harmful (item score-1) and % of not harmful (item score=3-4) behaviors observed
- **Intervention fidelity:** Total score on BeThere fidelity tool (8-items) assessing the number of intervention components adequately implemented per session (Range: 72-216)

Study outcome measures and timepoints

Measures	Baseline	Randomisation	Midline*	Endline	Follow up	Ongoing
Caregiver						
Parenting (BPS)	X			X	X	
Psychological Distress (K10)	X		X	X	X	
Caregiver stress	X		X	X	X	
Psychosocial wellbeing (WEMWBS)	X		X	X	X	
Child wellbeing (KINDL)	X			X	X	
Group cohesion (GCS)			X	X	X	
Mechanisms of action (MOA)	X		X	X	X	
Child						
Parenting (BPS – Child Version)	X			X	X	
Psychosocial wellbeing (KINDL)	X			X	X	
Randomisation		X				
Adverse events						X

**Midline assessments administered to BeThere study arm only*

27a. Analysis methods

Data Management

We will prepare both a long and wide final dataset. The long dataset will include a separate observation for each assessment. The wide dataset will include one observation per individual with variables for each assessment period. The final dataset will include the following variables:

- Community identifier
- Household identifier
- Individual identifier (caregivers, child)
- Allocation [masked: will be coded 0 or 1 without a label until primary analyses are complete]
- BeThere group number/identifier
- Assessment number/time point
- Assessment date
- Caregiver age
- Child age
- Caregiver gender
- Number of caregivers in the household
- Caregiver-reported parenting items and total score
- Child-reported parenting items and total score
- Caregiver psychological distress items and total score
- Caregiver stress items and total score
- Caregiver wellbeing items and total score
- Caregiver-reported child psychosocial wellbeing items and total score
- Child-reported psychosocial wellbeing items and total score
- Group cohesion items and total score
- Mechanisms of action items and total score
- Fidelity
- Number of sessions attended (in BeThere Group only)
- Facilitator competence

More details about each variable and how it will be operationalized is described in the appendix.

We will review the data and perform the following quality checks prior to beginning the analysis: 1) identify and input (if possible) any missing data using imputation; 2) review the distribution of all variables to identify any outliers or potential data entry errors, including reviewing the distribution of outcomes at each time point; and 3) search for any data irregularities. Any identified issues will be reviewed and reconciled with the research team. Once the dataset has been cleaned, we will proceed with creating and coding the variables required to answer the primary and secondary objectives. The variables used in the final analysis are described in the table below.

Descriptive statistics

The distribution of baseline characteristics will be reported for the overall sample and stratified by study arm. For each primary and secondary outcome, a summary of results will be presented by trial arm for each time point. We will summarize trial implementation indicators (BeThere attendance, facilitator competence, intervention fidelity) using descriptive statistics. Appropriate summary statistics will be applied to describe demographic, parenting,wellbeing, and implementation measures: mean and standard deviation for all symmetric (non-skewed) distributed measures; median, 25th and 75th quartiles for

skewed distributions. QQ plots and histograms will be used to assess data distributions of continuous measures. Categorical outcomes will be described using both numbers and proportions (percentage).

Loss to follow-up, active withdrawals from the trial, active withdrawals from treatment only, departures from randomised treatment and the prevalence of serious adverse events will be reported at follow-up.

Primary Analysis

The analyses outlined in this strategy will be pragmatic, based on ITT and will utilize all available follow-up data from all randomised participants. The trial statistician will be blinded to treatment allocation. The main statistical analyses will establish the effectiveness of BeThere over waitlist control by comparing the mean difference of total parenting score at endline post randomization (see appendix).

Primary outcome

The primary outcome is the total score of the parenting scale at endline. We will compare randomized groups at endline and follow-up adjusted for baseline total score of parenting scale and account for hierarchical clustering of caregivers at the level of household. Specifically, we will fit a three-level random intercept linear regression model considering observations from endline and follow up at level 1, household at level 2 and community at level 3. The model will include the total score parenting scale at endline and follow up as the outcome variables with treatment group, baseline rate of parenting total score as explanatory variables. A time by treatment interaction will be included to allow the effect to differ at each time point (endline, follow up).

Secondary outcomes

Secondary outcomes as listed will be assessed with a similar methodology for the primary outcomes, using generalized linear mixed models with the appropriate link function/distribution. Normal outcomes will use an identity link function, binary variables would use a logit link function, and Poisson (count) variables would use a log link function. We will use all available time points in the model and extract differences at endine and follow up post-randomisation. All the questionnaires to be used have validated methods of scoring.

Method for handling non-compliance

In addition to the primary intention-to-treat analysis the effect of actually receiving treatment as defined in the protocol will also be estimated using a per-protocol analysis (PP). The PP analysis will remove data of those who:
attended fewer than seven sessions and any participant who did not complete all study assessments.

Planned sensitivity analysis

As a sensitivity analysis, we will replicate the effectiveness models excluding Community #1: Tibek due to implementation issues and delays. We will conduct subgroup analyses for the effectiveness models

stratified by gender of the caregiver, number of caregivers in the household (1 vs. 2), and child age (3-7 years vs. 8-14 years).

Mediation Analyses

Estimate indirect effect of BeThere intervention on child wellbeing via caregiver wellbeing, caregiver distress, caregiver stress, and parenting.

Single mediator models. We will test for the effect of the BeThere intervention on each one of the multiple continuous mediators with the use of linear regression models. We chose a priori a p-value of lower than 0.15 to select the appropriate mediators to include in our final mediation analysis. We will test independence by examining partial correlations between our mediators after accounting for treatment allocation.

Full Structural Model. We will estimate a parametric structural equation model (sem package in Stata version 16.0 [StataCorp]) to estimate the total effect, the natural indirect effects (NIE), and natural direct effects (NDE) of Bethere on child wellbeing via caregiver wellbeing, caregiver distress, caregiver stress, and parenting. The NDE represented the effect of BeThere on Child Psychosocial Wellbeing (caregiver report) that was independent of caregiver wellbeing, caregiver distress, caregiver stress, and parenting. The NIE represents the proportion of BeThere intervention that could be explained by its effect on changes in caregiver wellbeing, caregiver distress, caregiver stress, and parenting.To quantify the magnitude of mediation, the study estimated the proportion of the effect mediated by caregiver wellbeing, caregiver distress, caregiver stress, and parenting (NIE/[NDE + NIE]). All analyses will be estimated using bootstrapping (500 replications) to recover the correct SEs for direct and indirect effects. Results are presented as coefficients and 95% confidence intervals (see appendix).

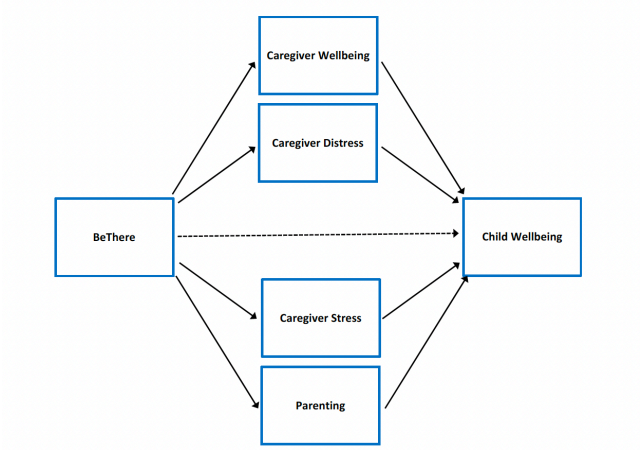
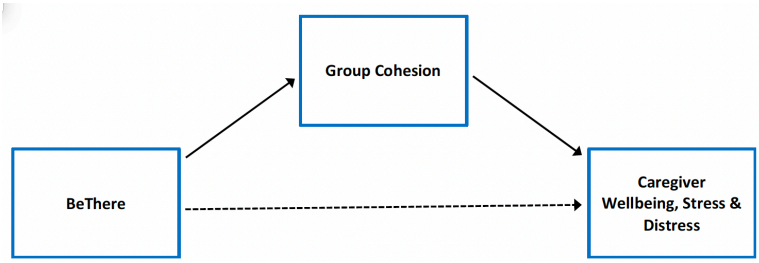


Figure 6 Primary mediation pathways

To assess the effect of group cohesion among beneficiaries in the BeThere intervention group on caregiver wellbeing and distress

First, we will examine the correlations among midline and endline group cohesion values with endline and follow-up caregiver wellbeing, stress, and distress.



We will use a structural equation model (SEM) to estimate the indirect effect of the *BeThere* intervention on caregiver outcomes through group cohesion. The model will specify caregiver wellbeing, caregiver stress, and caregiver distress at endline and follow-up as the outcomes using a similar method to that described above.

Reporting of all mediation analyses will adhere to recommended guidelines publications of mediation analyses from RCTs (Lee et al., 2021).

28. Missing data

For questionnaire outcome measures where there are published methods for dealing with missing items, these will be applied. Otherwise, we will prorate missing items only when there are no more than 20% missing items (i.e. for a ten item questionnaire, prorate only where one or two items are missing) by replacing the missing item values with the mean value of the complete items for each individual. Multiple imputation is not necessary in the first line statistical models we propose to use to analyze this trial data. We will only consider multiple imputation of post-randomization variables are related to missing follow-up data.

29. Additional analyses

Not applicable

30. Harms

Serious Adverse Events—harm to self, harm to others, family violence, and other events identified by the study team in the course of the study have been carefully monitored and reported on and reviewed by the Data Safety Management Board. Number and types of events will be reported. Referral and follow-up of individual cases will be done as indicated.

31. Statistical software

Data will be imported into Stata Version 19 for data management and analysis.

32. References

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Appendix 1. Table Shells

1. Study variables (Section 25a)

Variable name	Variable description	Variable type	Variable coding/values
id	Unique ID. Each participant possesses a unique ID that indicates the community (1st digit), family code (2nd-4th digit), and the participant type (5th digit: female caregiver '1', male caregiver '2', or child '3'.	Nominal	11111-99999
int_location	Community (numeric identifier) of residence	Nominal	1: Tbek 2: Ghoi 3: Sukzero/Taragok 4: Malou/Anglican Church/Lenguet 5: Pariak
household	Household (numeric identifier).	Nominal	1-9999
id_fv	Caregiver ID (numeric identifier)	Nominal	1-9999
Id_ch	Child ID (numeric identifier)	Nominal	1-9999
allocation	Study condition (BeThere vs. waitlist) *Note: the labelling will not be revealed until after primary analyses have been completed*	Nominal	0: TBC 1: TBC
betheregrp	BeThere group number *Note: if waitlist groups are not enumerated then do not include this variable in the dataset until primary analyses have been completed*	Nominal	1-99
assessment	Assessment number *Note: do not include midline data until the primary analyses have been completed*	Ordinal	0: Baseline 1: Midline 2: Endline 3: Follow up
assessweeks	Number of weeks since enrolment	Continuous	Time since baseline (in weeks)
assessdate	Date of the assessment	Date	DD-Mon-YY
cg_gender	Gender (caregiver)	Nominal	1: Female 2: Male
num_caregivers	Number of caregivers in the household	Continuous	1-2
ic_age_t1	Child age (in years; caregiver-reported)	Continuous	3-14
parenting	Total score on parenting measure (caregiver reported)	Numeric, continuous	24-120
parenting_01, parenting_02, parenting_03, parenting_04, parenting_05 (reverse), parenting_06, parenting_07,	Item score on parenting measure (caregiver-reported)	Numeric, continuous	1-5

parenting_08, parenting_09, parenting_10, parenting_11, parenting_12, parenting_13, parenting_14, parenting_15 (reverse), parenting_16, parenting_17 (reverse), parenting_18 (reverse), parenting_19 (reverse), parenting_20 (reverse), parenting_21, parenting_22, parenting_23, parenting_24			
parenting warmth_cg	Total score on parenting warmth subscale (caregiver reported)	Numeric, continuous	17-85
parenting_01, parenting_02, parenting_03, parenting_04, parenting_06, parenting_07, parenting_08, parenting_09, parenting_10, parenting_11, parenting_12, parenting_13, parenting_14, parenting_16, parenting_21, parenting_22, parenting_23	Item score on parenting warmth subscale (caregiver reported)	Numeric, continuous	1-5
parentingharsh_cg	Total score on harsh parenting subscale (caregiver reported)	Numeric, continuous	6-30
parenting_05, parenting_15, parenting_17, parenting_18, parenting_19, parenting_20	Item score on harsh parenting subscale (caregiver reported)	Numeric, continuous	1-5
parenting_ic	Total score on parenting measure (child reported)	Numeric, continuous	24-120
parenting_01_ic, parenting_02_ic, parenting_03_ic,	Item score on parenting measure (child-reported)	Numeric, continuous	1-5

parenting_04_ic, parenting_05_ic (reverse), parenting_06_ic, parenting_07_ic, parenting_08_ic, parenting_09_ic, parenting_10_ic, parenting_11_ic, parenting_12_ic, parenting_13_ic, parenting_14_ic, parenting_15_ic (reverse), parenting_16_ic, parenting_17_ic (reverse), parenting_18_ic (reverse), parenting_19_ic (reverse), parenting_20_ic (reverse), parenting_21_ic, parenting_22_ic, parenting_23_ic, parenting_24_ic			
parenting warmth_ic	Total score on parenting warmth subscale (child reported)	Numeric, continuous	17-85
parenting_01_ic, parenting_02_ic, parenting_03_ic, parenting_04_ic, parenting_06_ic, parenting_07_ic, parenting_08_ic, parenting_09_ic, parenting_10_ic, parenting_11_ic, parenting_12_ic, parenting_13_ic, parenting_14_ic, parenting_16_ic, parenting_21_ic, parenting_22_ic, parenting_23_ic	Item score on parenting warmth subscale (caregiver reported)	Numeric, continuous	1-5
parentingharsh_ic	Total score on harsh parenting subscale (child reported)	Numeric, continuous	6-30
parenting_05_ic, parenting_15_ic, parenting_17_ic, parenting_18_ic, parenting_19_ic, parenting_20_ic	Item score on harsh parenting subscale (child reported)		1-5
k	Total score on Kessler-10 (caregiver-	Numeric,	10-50

	reported)	continuous	
k_01 – k_10	Item score on Kessler-10 (caregiver-reported)	Numeric, continuous	1-5
stress	Total score on stress scale (caregiver-reported)	Numeric, continuous	18-90
stress_01 – stress_18 (stress_04, stress_15, and stress_18 reverse scored)	Item score on stress scale (caregiver-reported)	Numeric, continuous	1-5
wembws	Total score on Warwick-Edinburgh Mental Wellbeing Scale (caregiver-reported)	Numeric, continuous	14-70
wembws _01 – wembws _14	Item score on Warwick-Edinburgh Mental Wellbeing Scale (caregiver-reported)	Numeric, continuous	1-5
kkd	Total score on Kid_KINDL (caregiver-reported)	Numeric, continuous	25-125
kkd_01 – kkd_25 (kkd_02, kkd_03, kkd_04, kkd_06, kkd_07, kkd_08, kkd_16, kkd_17, kkd_21, and kkd_23 reverse scored)	Item score on Kid_KINDL (caregiver-reported)	Numeric, continuous	1-5
kkd_phys_wb	Total score on Kid_KINDL Physical Wellbeing subscale (caregiver-reported)	Numeric, continuous	4-20
kkd_01 – kkd_04 (kkd_02, kkd_03, and kkd_04 reverse scored)	Item score on Kid_KINDL Physical Wellbeing subscale (caregiver-reported)	Numeric, continuous	1-5
kkd_emot_wb	Total score on Kid_KINDL Emotional Wellbeing subscale (caregiver-reported)	Numeric, continuous	4-20
kkd_05 – kkd_08 (kkd_06, kkd_07, and kkd_08 reverse scored)	Item score on Kid_KINDL Emotional Wellbeing subscale (caregiver-reported)	Numeric, continuous	1-5
kkd_self_esteem	Total score on Kid_KINDL Self-esteem subscale (caregiver-reported)	Numeric, continuous	4-20
kkd_09 – kkd_12	Item score on Kid_KINDL Self-esteem subscale (caregiver-reported)	Numeric, continuous	1-5
kkd_family	Total score on Kid_KINDL Family subscale (caregiver-reported)	Numeric, continuous	5-25
kkd_13 – kkd_17 (kkd_16 and kkd_17, kkd_21 reverse scored)	Item score on Kid_KINDL Family subscale (caregiver-reported)	Numeric, continuous	1-5
kkd_soc_contacts	Total score on Kid_KINDL Social Contacts subscale (caregiver-reported)	Numeric, continuous	4-20
kkd_18 – kkd_21 (kkd_21 reverse scored)	Item score on Kid_KINDL Social Contacts subscale (caregiver-reported)	Numeric, continuous	1-5
kkd_add_qs	Total score on Kid_KINDL Additional Questions subscale (caregiver-reported)	Numeric, continuous	4-20

kkd_22 – kkd_25 (kkd_23 reverse scored)	Item score on Kid_KINDL Additional Questions subscale (caregiver-reported)	Numeric, continuous	1-5
Kkdchild714	Total score on Kid_KINDL (child-reported)	Numeric, continuous	25-125
kkdchild714_01 – kdchild714_25 (kkdchild714_01, kkdchild714_02, kkdchild714_03, kkdchild714_06, kkdchild714_07, kkdchild714_08, kkdchild714_15, kkdchild714_16, kkdchild714_21, and kkdchild714_23 reverse scored)	Item score on Kid_KINDL (child-reported)	Numeric, continuous	1-5
kkdchild714_phys_wb	Total score on Kid_KINDL Physical Wellbeing subscale (child -reported)	Numeric, continuous	4-20
kkdchild714_01 – kkdchild714_04 (kkdchild714_01, kkdchild714_02, and kkdchild714_03 reverse scored)	Item score on Kid_KINDL Physical Wellbeing subscale (child -reported)	Numeric, continuous	1-5
kkdchild714_emot_wb	Total score on Kid_KINDL Emotional Wellbeing subscale (child -reported)	Numeric, continuous	4-20
kkdchild714_05 – kkdchild714_08 (kkdchild714_06, kkdchild714_07, and kkdchild714_08 reverse scored)	Item score on Kid_KINDL Emotional Wellbeing subscale (child -reported)	Numeric, continuous	1-5
kkdchild714_self_esteem	Total score on Kid_KINDL Self-esteem subscale (child -reported)	Numeric, continuous	4-20
kkdchild714_09 – kkdchild714_12	Item score on Kid_KINDL Self-esteem subscale (child -reported)	Numeric, continuous	1-5
kkdchild714_family	Total score on Kid_KINDL Family subscale (child -reported)	Numeric, continuous	5-25
kkdchild714_13 – kkdchild714_17 (kkdchild714_15 and kkdchild714_16 reverse scored)	Item score on Kid_KINDL Family subscale (child -reported)	Numeric, continuous	1-5
kkdchild714_soc_contacts	Total score on Kid_KINDL Social Contacts subscale (child -reported)	Numeric, continuous	4-20
kkdchild714_18 –	Item score on Kid_KINDL Social	Numeric,	1-5

kkdchild714_21 (kkdchild714_21 reverse scored)	Contacts subscale (child -reported)	continuous	
kkdchild714_add_qs	Total score on Kid_KINDL Additional Questions subscale (child -reported)	Numeric, continuous	4-20
kkdchild714_22 – kkdchild714_25 (kkdchild714_23 reverse scored)	Item score on Kid_KINDL Additional Questions subscale (child -reported)	Numeric, continuous	1-5
gcs	Total score on Group Cohesiveness Scale (caregiver-reported)	Numeric, continuous	7-35
gcs_01, gsc_02, gcs_03, gcs_04, gcs_05, gcs_06, gcs_07 (reverse)	Item score on Group Cohesiveness Scale (caregiver-reported) *Note: Item gcs_07 was reverse scored to improve internal consistency. Cognitive interviews further revealed that this item referred to a behaviour that reflected lack of group cohesion and respect in the study context, further supporting the decision to reverse score this item.*	Numeric, continuous	1-5
moa	Total score on Mechanisms of Action scale (caregiver-reported)	Numeric, continuous	5-25
moa_01 –moa_05	Item score on Mechanisms of Action scale (caregiver-reported)	Numeric, continuous	1-5
attendance	Number of sessions attended	Numeric, continuous	0-9
competence	ENACT score (12 of 15 items) measured post-training/pre-implementation and during training; % scored harmful vs. not harmful	Proportion	0-100
fidelity	Total score on fidelity tool	Numeric, continuous	72-216

2. Characteristics of the sample at baseline (Section 25b)

	Overall sample (n=XX)	BeThere (n=XX)	Waitlist Control (n=XX)
Location, n (%)			
Tibek	n (%)	n (%)	n (%)
Ghoi	n (%)	n (%)	n (%)
Sukzero/Taragok	n (%)	n (%)	n (%)
Malou/Anglican Church/Lenguet	n (%)	n (%)	n (%)
Pariak	n (%)	n (%)	n (%)
Caregiver age, M (SD)	M (SD)	M (SD)	M (SD)
Caregiver gender, n (%)			
Female	n (%)	n (%)	n (%)
Male	n (%)	n (%)	n (%)
Caregiver nationality, n (%)			
South Sudanese	n (%)	n (%)	n (%)
Sudanese	n (%)	n (%)	n (%)
Ugandan	n (%)	n (%)	n (%)
Ethiopian	n (%)	n (%)	n (%)
Kenyan	n (%)	n (%)	n (%)
Other	n (%)	n (%)	n (%)
Caregiver marital status, n (%)			
Single	n (%)	n (%)	n (%)
Married	n (%)	n (%)	n (%)
Widowed	n (%)	n (%)	n (%)
Divorced	n (%)	n (%)	n (%)
Separated	n (%)	n (%)	n (%)
Other	n (%)	n (%)	n (%)
Caregiver education level, n (%)			
No schooling	n (%)	n (%)	n (%)
Primary school	n (%)	n (%)	n (%)
Secondary school	n (%)	n (%)	n (%)
Vocational training	n (%)	n (%)	n (%)
University/college	n (%)	n (%)	n (%)
Currently working (caregiver), n (%)	n (%)	n (%)	n (%)
Caregiver financial situations, n (%)			
In deep financial trouble	n (%)	n (%)	n (%)
In some financial trouble	n (%)	n (%)	n (%)
Somewhat financially secure	n (%)	n (%)	n (%)
Very financially secure	n (%)	n (%)	n (%)
Do not wish to disclose/no answer	n (%)	n (%)	n (%)
Type of house, n (%)			
Grass thatch house	n (%)	n (%)	n (%)
Plastic house	n (%)	n (%)	n (%)
Modern house	n (%)	n (%)	n (%)
Other	n (%)	n (%)	n (%)
Household size, M (SD)	M (SD)	M (SD)	M (SD)

Relationship to child, n (%)				
	Mother	n (%)	n (%)	n (%)
	Father	n (%)	n (%)	n (%)
	Grandmother	n (%)	n (%)	n (%)
	Grandfather	n (%)	n (%)	n (%)
	Other relative	n (%)	n (%)	n (%)
	Non-relative guardian	n (%)	n (%)	n (%)
Child age, M (SD)		M (SD)	M (SD)	M (SD)
Child gender, n (%)				
	Female	n (%)	n (%)	n (%)
	Male	n (%)	n (%)	n (%)

3. Table Shell for Outcome Models (Section 27a)

	BeThere	WLC	Difference in change from baseline to endline	Cohen's *d*
Primary Outcome				
Parenting (Caregiver-reported)				
Baseline	*M (SD)*	*M (SD)*		
Endline	*M (SD)*	*M (SD)*		
Change from baseline to endline	*B (95% CI)*	*B (95% CI)*	*B (95% CI)*	*d*
Secondary Outcomes				
Parenting (Child-reported)				
Baseline	*M (SD)*	*M (SD)*		
Endline	*M (SD)*	*M (SD)*		
Change from baseline to endline	*B (95% CI)*	*B (95% CI)*	*B (95% CI)*	*d*
Child wellbeing (Caregiver-reported)				
Baseline	*M (SD)*	*M (SD)*		
Endline	*M (SD)*	*M (SD)*		
Change from baseline to endline	*B (95% CI)*	*B (95% CI)*	*B (95% CI)*	*d*
Child wellbeing (Child-reported)				
Baseline	*M (SD)*	*M (SD)*		
Endline	*M (SD)*	*M (SD)*		
Change from baseline to endline	*B (95% CI)*	*B (95% CI)*	*B (95% CI)*	*d*
Caregiver psychological distress				
Baseline	*M (SD)*	*M (SD)*		
Endline	*M (SD)*	*M (SD)*		
Change from baseline to endline	*B (95% CI)*	*B (95% CI)*	*B (95% CI)*	*d*
Caregiver stress				
Baseline	*M (SD)*	*M (SD)*		
Endline	*M (SD)*	*M (SD)*		
Change from baseline to endline	*B (95% CI)*	*B (95% CI)*	*B (95% CI)*	*d*
Caregiver wellbeing				
Baseline	*M (SD)*	*M (SD)*		
Endline	*M (SD)*	*M (SD)*		
Change from baseline to endline	*B (95% CI)*	*B (95% CI)*	*B (95% CI)*	*d*

4. Table Shell for Mediation Models *(Exposure: BeThere Intervention, Outcome: Child wellbeing)*

	Model 1: Parallel multiple mediation			Model 2: Serial multiple mediation		
Path		**B (95% CI)**	**Indirect Effect**		**B (95% CI)**	**Indirect Effect**
a_1	BeThere → Caregiver Wellbeing (endline)			BeThere → Caregiver Wellbeing (midline)		
a_2	BeThere → Caregiver Distress (endline)			BeThere → Caregiver Distress (midline)		
a_3	BeThere → Caregiver Stress (endline)			BeThere → Caregiver Stress (midline)		
a_4	BeThere → Caregiver Parenting (endline)			BeThere → Caregiver Parenting (endline)		
b_1	Caregiver Wellbeing → Child Wellbeing			Caregiver Wellbeing → Child Wellbeing		
b_2	Caregiver Distress → Child Wellbeing			Caregiver Distress → Child Wellbeing		
b_3	Caregiver Stress → Child Wellbeing			Caregiver Stress → Child Wellbeing		
b_4	Parenting → Child Wellbeing			Parenting → Child Wellbeing		
c’	BeThere → Child Wellbeing (Direct effect)			BeThere → Child Wellbeing (Direct effect)		
c	BeThere → Child Wellbeing (Total Effect)			BeThere → Child Wellbeing (Total Effect)		
d_1	--			Caregiver wellbeing → Parenting		
d_2	--			Caregiver Distress → Parenting		
d_3	--			Caregiver Stress → Parenting		