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Promoting Excellence in Health Economics

Session 2

Overview of WP3 Tasks & Timelines

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Key Research Questions

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- **Main Research Question:**
 - Does a mindfulness intervention delivered to children in schools, in Rwanda & Ethiopia, improve their mental health and well-being?
- **Additional Research Questions:**
 - What mechanisms explain the changes (or lack of) in mental health and well-being?
 - Does the intervention change teacher job satisfaction and overall school culture?
 - Does the intervention have any effects on parental well-being?
 - What is the relative cost-effectiveness of the intervention?

Methods

- Quasi-experimental design
- Quantitative measures of *outcomes*: mindfulness, mental health, health-related quality of life and well-being
- Quantitative measures of *resource use and costs* (training time, intervention delivery time by teachers)
- Qualitative data approaches throughout
- Household surveys - household composition, assets, occupation/job type, education, health, attitudes & behaviours

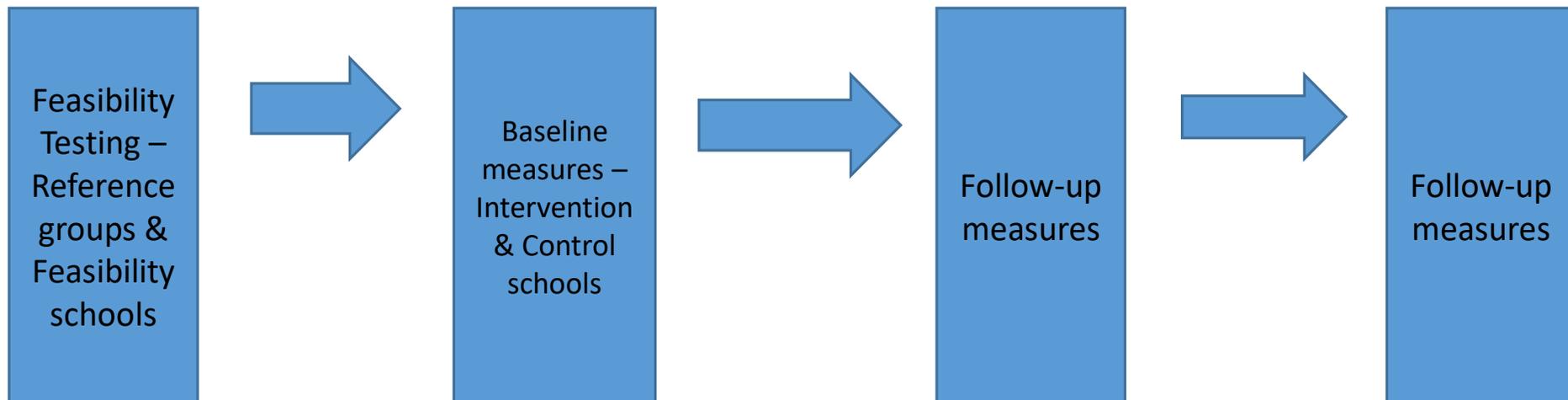
Outcome measurement

Feb – June 2024

Sep 2024

Dec 2024-Jan 2025

June 2025



Feasibility testing - Aims

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- To gather data that will inform the selection of outcome measures to be used in the intervention and control schools
- To assess and finalise the resource requirements needed to run the main study in the intervention and control schools

Feasibility testing – How?

- “Think-aloud” exercises with participants for *selected* measures, drawn from the project reference groups
- Completion of outcome measures in schools and households, with participants from the feasibility schools (children, parents, teachers)

Think Aloud

- Aim is to gain fuller understanding regarding *how* respondents decide on a response to a question
- Task requires respondents to verbalise their thoughts in arriving at an answer *in the moment*
- Can uncover misunderstanding of *concepts* as well as help respondents to arrive at an answer they are most comfortable with
- Important when using “off-the-shelf” questionnaires in a new setting

Selected measures - Child Health Utility Index (CHU-9D) vs. EQ-5D-Y

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CHU-9D

- *Preference-based* measure of health – domains derived from interviews with children
- 9 items, each with 5 response categories (rated 1–5) that assess the child/adolescent's functioning "*today*"
- Designed for self-completion by children aged 7–11 years, but has also been applied up to age 17 years
- Proxy versions also available

Selected measures - Child Health Utility Index (CHU-9D) vs. EQ-5D-Y

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EQ-5D-Y

- *Preference-based* measure of health – domains derived from the adult version, with some changes in wording following cognitive interviews with children
- 5 items, each with 3 response categories (rated 1–3) that assess the child/adolescent’s functioning “*today*”
- Designed for self-completion by children aged between 8-15 years of age
- Proxy, interviewer-administered, and proxy interviewer-administered versions also available

CHU-9D



Domain	Response
Worried	I don't feel worried (1); I feel a little bit/a bit/quite/very worried (2-5)
Sad	I don't feel sad; I feel a little bit/a bit/quite/very sad
Pain	I don't have any pain; I have little bit/a bit/quite a lot/a lot of pain
Tired	I don't feel tired; I feel a little bit/a bit/quite/very tired
Annoyed	I don't feel annoyed; I feel a little bit/a bit/quite/ very annoyed
Schoolwork/homework (reading, writing, doing lessons)	I have no problems; I have a few/some/many/I can't do my schoolwork/homework
Sleep	Last night I had no problems; I had a few/some/many/I couldn't sleep
Daily routine (eating, having a bath/shower, getting dressed)	I have no problems; I have a few/some/many/I can't do my daily routine
Activities (playing with friends, doing sport, joining in things)	I can join in with any activities; I can join in with most/some/a few/I can't join in

EQ-5D-Y



Domain	Response
Mobility (walking about)	I have <u>no</u> problems walking about (1) I have <u>some</u> problems walking about (2) I have <u>a lot</u> of problems walking about (3)
Looking after myself (washing and dressing)	I have <u>no</u> problems washing or dressing myself I have <u>some</u> problems washing or dressing myself I have <u>a lot</u> of problems washing or dressing myself
Doing usual activities <i>(for example, going to school, hobbies, sports, playing, doing things with family or friends)</i>	I have <u>no</u> problems doing my usual activities I have <u>some</u> problems doing my usual activities I have <u>a lot</u> of problems doing my usual activities
Having pain or discomfort	I have <u>no</u> pain or discomfort I have <u>some</u> pain or discomfort I have <u>a lot</u> of pain or discomfort
Feeling worried, sad or unhappy	I am <u>not</u> worried, sad or unhappy I am <u>a bit</u> worried, sad or unhappy I am <u>very</u> worried, sad or unhappy

Feasibility testing - timeline

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Feb – March 2024

April-May 2024

June 2024

Reference
Group -
Think
Aloud



Feasibility
schools –
Children,
Parents,
Teachers –
Think Aloud



Final
Feasibility
testing –
completed
in schools &
households

Sample sizes?

- **Feasibility testing – a proposal**
 - Think aloud - Reference Groups (n=??)
 - Think aloud – Feasibility Schools (n=20 children, n=2 teachers, n=10 parents, with 2 questionnaires per respondent)
 - Final in-school testing for children & teachers (2 classes, n=40-50 children, 4 teachers, completion of all measures)
 - Final household-based testing for parents (n=20-25, completion of all measures)

Thoughts?

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Think Aloud - Example

- Recent study assessed CHU9-D and EQ5D-Y for a study on school-based mental health interventions in India
- 10 'think-aloud' interviews with semi-structured follow-up discussions and further written surveys with adolescents
- Identified a number of completion challenges for both measures. Error rates higher for the EQ-5D-Y than the CHU-9D
- Translation and comprehension of the item *'Having pain or discomfort'*
- Difficulty in answering about feelings and experiences *"today"*
- Concluded that *CHU9-D was the preferred measure* – more relevant content (and more response options, e.g. 1-5 rather than 1-3 scale) – *but neither measure captured other relevant aspects* (e.g. social interactions, poverty)

Outcome measures for our study



Children	Teachers	Parents
Children & Adolescent Mindfulness Measure (CAMM)	Kesler Psychological Distress Scale <i>or</i> Short Warwick Edinburgh Mental Wellbeing Scale (WEMBS)	Kesler Psychological Distress Scale <i>or</i> Short Warwick Edinburgh Mental Wellbeing Scale (WEMBS)
Strength & Difficulties Questionnaire (SDQ)	Teacher Job Satisfaction Scale	Child Behaviour Questions
Stirling Children's Wellbeing Scale (SCWBS) <i>or</i> Short Warwick Edinburgh Mental Wellbeing Scale (WEMBS)	Cantril Life Satisfaction Ladder	Cantril Life Satisfaction Ladder
Child Health Utility Index (CHU-9D) <i>or</i> EQ5D-Y	Beyond Blue School Climate Survey	
Cantril Life Satisfaction Ladder		
Beyond Blue School Climate Survey?		

Next steps ...

- Work Programme 3 meetings to review indicative list of measures (Oct-Nov this year)
- Existing review evidence on validity, reliability, sensitivity to change
- Use in lower / middle income countries and amongst children & adolescents, especially general populations
- Rapid scoping reviews? Research resources available to conduct?
- **Planning for the feasibility study :**
 - Further ethics approvals?
 - Interview materials (incl. participant information sheets & consent forms)
 - Questionnaire printing
 - Fieldwork staff recruitment
 - Participant recruitment
 - Organise and train research teams for interviews, data entry and analysis

Next steps

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Comments?
Suggestions?



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Session 3 Rwanda: Workplan & Resources



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Sample size

- Target = **230 children per school**
- Sample size below the number of pupils year 4 or over at the intervention and control schools in both countries (larger in Ethiopia)
- Whole school intervention ; sample size will exceed 230 !
- Sample size large enough therefore to consider whether effectiveness differs according to characteristics such as:
 - Sex
 - Age of children (e.g. age 8-12 vs. 13-16 years of age)
 - Classroom/teacher (e.g. recently qualified vs. more experienced)
 - Siblings (e.g. yes / no)
 - ???

School size (# pupils year 4 or above)

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Feasibility school Cyapa	Intervention School Rwasa	Control school Rugarama
431	353	355

School size (# pupils year 4 or above)
Ethiopia

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Feasibility school Ekwet Wegene	Intervention School Gulele fana	Control school Dej/Geneme
728	757	903

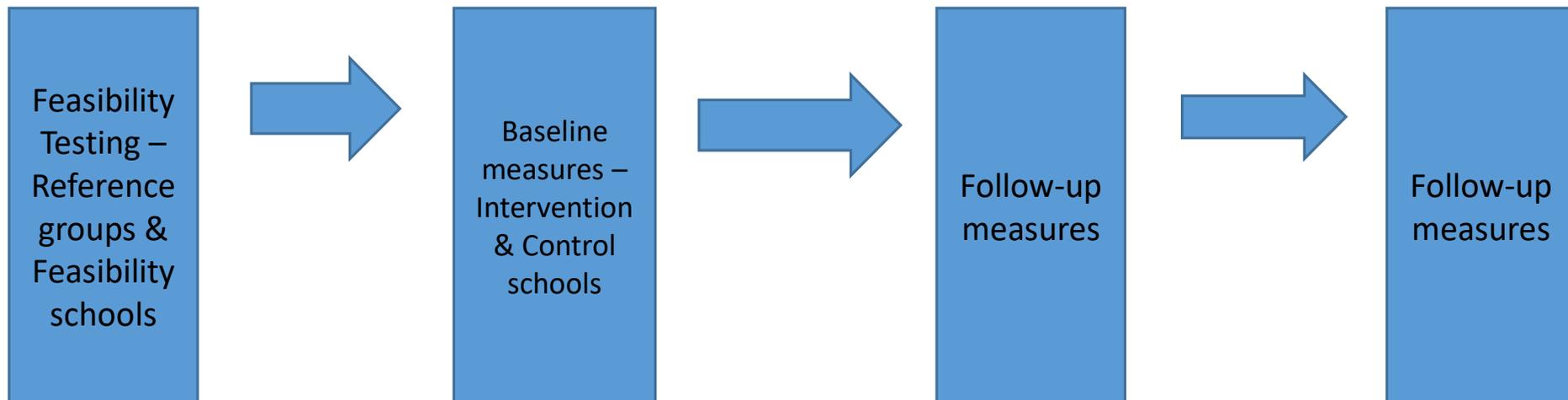
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Household survey

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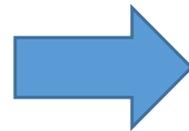
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Testing phase -
July/Aug/Sep?

Sep/Oct 2024?

Oct/Nov 2024?

Testing
Feasibility
School



Main survey
Intervention
School



Main survey
Control
School

Household survey questionnaire



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Domain/Item	Example questions/scale
Household roster	How many people live in your house? How many children live in your house? What are their ages?
Assets (& Income?)	Do you own your house? Does anyone in your house own any of the following (mobile phone, bike, motorbike, car etc.)?
Poverty	How often in the last year has anyone had to do without any of the following? (food, water, fuel, health care etc.
Employment & occupation	During the last year what was your main occupation? (e.g paid farm work, unpaid farm work, other)
Health & well-being	Kesler Scale/WEMBS/Cantril's ladder
Education	Highest level of education achieved
Attitudes & behaviours	Does your husband ever bully you, shout at you or hit you?



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Session 4 Ethiopia: Workplan & Resources



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This research was funded by the NIHR (NIHR133712) using UK aid from the UK Government to support global health research. The views expressed in this publication are those of the author(s) and not necessarily those of the NIHR or the UK government, the Court of the University of Aberdeen, the Board of Directors of the University of Rwanda, the Board of Directors of Addis Ababa University, the Board of Directors of The Sanctuary, or our International Advisory Board.