

Analysis Plan: Can Soap Operas Increase Hope? Edutainment in a Graduation-Style Program in the Philippines

1. Description of the sample to be used in the study

1.1 How sample was obtained

ICM operates through a network of local evangelical pastors who recruit participants (in the case of this study, the sample) and later host and facilitate Transform, including teaching the weekly Values lessons. ICM runs Transform in a given barangay only once, thus all 180 barangays in this study were new to ICM at the time of recruitment; they had not been contacted by ICM previously.

ICM's standard participant recruitment model is as follows. In each barangay, the pastor creates a list of 40 households that they consider to be the poorest and thus eligible for participation in Transform. Pastors interact with these households to assess their willingness to participate in the program, should it be launched in their village. The pastor identifies one member of the household—usually the female head of household or the female spouse of the male head of household—as the potential invitee to Transform. ICM staff then administers a Poverty Scorecard, based on indicators such as the quality of a home's construction materials; access to electricity, clean water, and sanitation; and household income. The previously identified individuals in the 30 households deemed poorest out of the 40 households are then invited to participate in the program.

The sample for the Soap Operas study was obtained following the typical recruitment model; however, in practice, the final number of households per barangay is often not exactly 30. This study's sample ranges from 20 households in a barangay to 71 (we assume this is a case of two barangays combining). The average number of households per barangay in our sample is 32, the mode is 30.

1.2 Sample size

At baseline, we surveyed 3,613 individuals across the 180 clusters. At endline, we collected data from 3,410 individuals.

1.3 Randomization

Randomization was conducted at the community level, where each community (or cluster) corresponds to a church implementing the program. A total of 180 clusters were randomly assigned to one of four experimental arms: 90 to the control group, and 30 to each of the three treatment groups.

- T1: Low achievement Soap Operas with Transform
- T2: Typical achievement Soap Operas with Transform
- T3: High achievement Soap Operas with Transform

- C: Control group, Transform only

Stratified randomization was conducted using ICM's internal organizational structure, which consists of bases and branches. There are four bases: Bohol, Cebu, Dipolog, and Dumaguete. Each base is subdivided into three branches, resulting in a total of 12 base-branch strata.

2. Key data sources

2.1 Surveys

- Baseline survey
 - Administered by ICM enumerators
 - September 24 to October 26, 2023
 - Dates: Duration mean: 52.97 mins
 - # observations: 3,613
- Endline survey
 - Administered by ICM enumerators
 - Dates: August 29 to October 4, 2024 (approx. 6 months after treatment ended)
 - Duration mean: 52.38 mins
 - # observations : 3,410 (5.65% attrition)

2.2 Administrative Data

- Monitoring data
 - Administered by ICM trainers
 - Dates / Episode #s:
 - Week 4: Nov 20 2023 - Dec 5 2023
 - Week 7: Dec 11 2023 - Feb 15 2024
 - Week 13: Feb 5 2024 - Feb 26 2024
- Attendance data
 - Administered by ICM trainers
 - 5,595 program participants registered (this includes non attendees)

3. Outcomes

Primary Outcomes

- Economic well being (e.g., income, consumption, assets)
- Wellbeing and mental health outcomes (e.g., subjective well being, subjective health, depression)

Process Outcomes

- Optimism

- Agency
- Subjective Economic Well-being
- Social worth
- Attendance in Transform
- Participation in a savings group

All other variables will be exploratory.

Subgroup or heterogeneity analysis

- Age
- Income quartiles
- Baseline values of aspirations, future expectations, and financial satisfaction

3.1 Economic Outcomes

- **Income**
 - Total household income in the last 30 days (PHP) Winsorized at 98%: sum of all income of all household members, winsorized at 98th percentile. Measured in Philippine pesos (PHP).
 - Income of Transform attendee in the last 30 days (PHP) Winsorized at 98%: sum of all income of Transform attendee, winsorized at 98th percentile, in Philippine pesos (PHP).
- **Consumption**
 - HH food consumption in the last 30 days (PHP) Winsorized at 98%: Sum of food-related variables, scaled to monthly PHP from 7-day recall. Winsorized at 98th percentile. Measured in Philippine pesos (PHP).
 - HH non-food consumption in the last 30 days (PHP) Winsorized at 98%: Sum of non-food variables, scaled to monthly PHP. Original variables have 7 days, 30 days and 6 months recall periods. Winsorized at 98th percentile. Measured in Philippine pesos (PHP).
 - Total per capita consumption in the last 30 days (PHP) Winsorized at 98%: Sum of food and non-food consumption in PHP scaled to monthly. Original variables have 7 days, 30 days and 6 months recall periods. Divided by num_members (number of hh members). Winsorized at 98th percentile. Measured in Philippine pesos (PHP).
- **Assets**
 - Has bank account or mobile money y/n: Binary variable indicating if Transform participant has a bank account or mobile money

3.2 Psychosocial Outcomes

- **Subjective Economic Well-being Index (5 items)**

- How often do you worry about being able to meet normal monthly living expenses? 0 = Worry All of the Time, 10 = Do Not Ever Worry
- How often do you worry about safety, food, or housing? 0 = Worry All of the Time, 10 = Do Not Ever Worry.
- I am satisfied with my current income and source of livelihood. (1=Agree the least-10=Agree the most)
- How satisfied are you with the financial situation of your household? (1-5)

- **Current self-assessed position in 10-step ladder (1-10)**

3.3 Intrapersonal Psychological Outcomes

- **Optimism index**
 - **Aspirations subindex**
 - Think about your life in 5 years from now. What step would you like to be on at the end of the next 5 years? (1-10)
 - Earlier, you reported the total income your household received in the last 30 days.. Now tell us what is the level of monthly income that you would like your household to reach at the end of the next 5 years? (PHP)
 - **Expectations subindex**
 - *Socioeconomic expectations subindex (4 items)*
 - What step do you expect you will be on at the end of the next 5 years? (1-10)
 - Now let's think about your youngest child (son or daughter) or grandchild (grandson or granddaughter), whoever is youngest. What step do you expect they will be on when they turn 30? If they are over 30, indicate their current position. (1-10)
 - Now tell us what is the level of monthly income that you expect your household will reach at the end of the next 5 years? (PHP)
 - What is the maximum monthly income that a household could reach in your barangay at the end of the next 5 years? (PHP)
 - *Educational expectations subindex (5 items)*
 - What is the level of education that you think your youngest child or grandchild will achieve? (0-23)
 - Suppose that your youngest child or grandchild completes high school. How likely is it that your youngest child or grandchild would be academically prepared to attend college or university? (1-7)
 - Suppose that your youngest child or grandchild completes high school and applies and is accepted to a college or university. How likely is it your household would be able to afford to send your youngest child or grandchild to college or university? (1-7)

- Suppose that your youngest child or grandchild completes high school. All things considered, how likely is it that your youngest child or grandchild would enroll in college or university? (1-7)
 - Suppose that your youngest child or grandchild completes high school. All things considered, how likely is it that your youngest child or grandchild would complete college or university? (1-7)
- **Hope subindex (3 items)**
 - All things considered, how hopeful do you feel about the future (1=Agree the least-10=Agree the most)
 - I have specific goals and plans for the future growth of my livelihood. (1=Agree the least-10=Agree the most)
 - If my current business or livelihood fails, I could start a new business or livelihood.(1=Agree the least-10=Agree the most)
- **Agency Index**
 - *Self-efficacy (3 items)*
 - I can always manage to solve difficult problems if I try hard enough. 1-4
 - If someone opposes me, I can find the means and ways to get what I want. 1-4
 - It is easy for me to stick to my aims and accomplish my goals. 1-4
 - *Collective efficacy (1 item)*
 - People like me can help bring about positive change in our community. (1=Agree the least-10=Agree the most)
 - *Self-esteem (2 items)*
 - How often do you feel that you are able to do things as well as most people? 1-5
 - How often do you have a positive attitude about yourself and your traits? 1-5
- Sense of control Index
 - Some people feel they have completely free choice and control over their lives, while other people feel that what they do has no real effect on what happens to them. Please tell me on a scale of 1 to 5, where 1 means "no choice at all" and 5 means "a great deal of choice", how much freedom of choice and control do you feel you have over the way your life turns out. 1-5
 - Other people determine most of what I can and cannot do. 1-5 (REVERSE CODED)
 - I have little control over the things that happen to me. 1-5 (REVERSE CODED)
 - How much control do you feel you have in making decisions that affect your everyday activities? (1=Agree the least-10=Agree the most)
 - Do you feel that you have the power to make important decisions that change the course of your life? Rate yourself on a 1 to 5 scale.

3.4 Well-being and mental health outcomes

- **Subjective Well-being (2 items)**
 - 1. Overall, how satisfied are you with life as a whole these days? 0 = Not Satisfied at All, 10 = Completely Satisfied
 - 2. In general, how happy or unhappy do you usually feel? 0 = Extremely Unhappy, 10 = Extremely Happy
- **Subjective Health (2 items)**
 - 3. In general, how would you rate your physical health? 0 = Poor, 10 = Excellent
 - 4. How would you rate your overall mental health? 0 = Poor, 10 = Excellent
- **Depression (Kessler 6) (6 items) (reverse coded)**
 - Q1. About how often during the past 30 days, did you feel NERVOUS? (0-4)
 - Q2. About how often during the past 30 days, did you feel HOPELESS? (0-4)
 - Q3. About how often during the past 30 days, did you feel RESTLESS and FIDGETY? (0-4)
 - Q4. About how often during the past 30 days, did you feel SO DEPRESSED THAT NOTHING COULD CHEER YOU UP? (0-4)
 - Q5. About how often during the past 30 days, did you feel THAT EVERYTHING WAS DIFFICULT? (0-4)
 - Q6. About how often during the past 30 days, did you feel WORTHLESS? (0-4)

4. Index Construction

We will construct z-scored indices composed of standardized items within each index. All items will be signed consistently so that higher values indicate more of the underlying construct being measured. This may require reverse coding certain items to align their direction with the rest.

Once aligned, we will standardize each item using the control group's mean and standard deviation for the corresponding survey wave. Then, we will compute the average of these standardized components for each participant, using all non-missing items, so participants who respond to only some components will still receive an index score. Finally, we will standardize the resulting average once more using the control group's mean and standard deviation, producing the final z-score for each index. This procedure follows the methodology outlined by Kling, Liebman, and Katz (2007) for combining measures across different constructs into a single interpretable index.

We will assess the construct validity of each index based on factor analysis and internal reliability metrics. Specifically, we will examine whether items within an index load strongly on the same factor and assess internal consistency using Cronbach's alpha, both estimated within the control group. If certain items exhibit low loadings, substantially reduce the reliability of the

index, or show limited variation, we will consider analyzing them separately rather than including them in the composite score.

For continuous outcome variables such as monetary estimates, we will apply transformations to limit the influence of extreme values. In particular, unconstrained continuous variables will be winsorized at the 98th percentile. Winsorization will be applied at the most disaggregated level feasible, depending on the distribution of the data and sample size within each subgroup.

5. Treatment effect equation to be estimated

Regressions of treatment condition on outcomes will control for baseline level of the outcome (where available) and randomization strata, and will apply clustered standard errors. Each treatment will be compared to control and to each other.

We will be assessing the interaction of baseline levels of aspirations / expectations and the levels presented in the Aspirations treatments. We will assess whether there are any important non-monotonicities. The central research question relates to how realistic Aspirations treatment levels need to be (i.e., given individuals' baseline levels) to positively shift economic behavior and outcomes, as well as any implications for well-being of those levels.

6. Transparency

This document was written after reviewing summary statistics. At the time of writing, a subset of the team (research analyst and research manager) had conducted preliminary analyses, but the principal investigators had not reviewed these results.

7. Multiple outcomes and multiple hypothesis testing

We use this pre-registration of analysis on a select number of indices as our primary means of controlling the rate of false discovery. As a robustness check, we will explore multiple hypotheses corrections.