Can Mentorship and Village Savings and Loan Groups Improve the Impacts of Business Training for Women in Conflict Affected areas of Nigeria?

Pre-Analysis Plan

PIs: Megan Rounseville and Jenny Aker

This field experiment builds off an existing yearlong women's empowerment program implemented by Women for Women International (WfWI) that provided small business training and a monthly stipend to women in two conflict affected states of Nigeria. We test the impacts of three add-on interventions: a six-month group mentorship intervention, a six-month individual mentorship intervention, and program support in forming and maintaining village level savings and loan groups (VSLAs). The hypothesized barriers that these interventions address are:

- Credit constraints - Business capital investments are lumpy for equipment (poultry and knitting) women lack lump sums and have limited access to formal savings and loans.

- Information - Specific information relevant to their income generation projects and within their context about best business practices. This is information that goes beyond the business basics taught within the WfWI year-long program and focuses on adaptation to their own business context.

- Behavioral barriers to implementing best business practices - These include a lack of social support and encouragement, bandwidth issues due to competing demands for time, present bias and a lack of commitment devices and goal setting to encourage follow-through.

Interventions

1) Village Savings and Loans Associations (VSLAs). WfWI program small groups (approximately 25 women) formed VSLA groups simultaneously to the regular yearlong training. Groups held additional VSLA meetings (twice monthly on average). The groups were provided training on how to set up VSLA group governance and by-laws, conduct record keeping and taught example meeting procedures. VSLA group leaders were given additional support. Women were invited to join the group, once involved they had the option to leave after the first cycle share-out. The VSLAs aimed to address liquidity and credit constraints faced by women in the group.

2) Group Mentorship. Following graduation from the yearlong WfWI program women meet with a business mentor in the same small business training groups (approximately 25 women) from regular programming. Meetings were held twice a month for six months. Each session included facilitated peer-to-peer mentoring and support, guided facilitation to address challenges women faced in their small businesses including reviewing processes covered in the yearlong training such as keeping records, creating a budget, calculating profits, setting achievable goals, conducting SWOT analysis, making a business plan and seeking and receiving a loan. Mentors were not trade specific business leaders but were trained in supporting small businesses and the business toolkits. Group mentorship aimed to address both informational and behavioral barriers to implementing best business practices and business improvements.

3) Individual Mentorship. Following graduation from the yearlong WfWI program women meet with a business mentor one-on-one. Meetings were held twice a month for six months. Each

session included identifying a challenge the mentee faced in their small business through conversation and on-site observation and goal setting for tracking improvement and growth. Mentors guided mentees through adapting processes learned in the yearlong program to their business context such as keeping records, calculating profits, setting achievable goals, conducting SWOT analysis, making a business plan and seeking and receiving a loan. The one-on-one nature of meetings allowed mentors to tailor guidance to the mentee's specific challenges and business context. Individual mentorship aimed to address both informational and behavioral barriers to implementing best business practices and business improvements.

Experimental Design

WfWI identified 40 villages in Northern Nigeria from Bauchi and Plateau states and enrolled 25 women in village-based training groups into their yearlong women's empowerment and business training program. Village-based program groups were randomly assigned to one of four control or treatment arms:

1) Control
2) VSLA
3) Group Mentorship
4) Both VSLA and Group Mentorship

Random assignment at the village-based program groups level was stratified by state and previous exposure to the WfWI program, using a min-max t-stat approach with 100 draws. At this level the variables used for balancing were: age, marital status, household size, household members under five years old, floor materials, electricity, bathroom/latrine, felt very safe in their community, participation in any savings group, hold savings, received any income in past 30 days and received payments for income generation in past week.

In addition, individual mentorship was assigned as a cross-cutting orthogonal assignment at the individual level stratified by the four treatment status options (Control, VSLA, Group mentorship, Both).

Figure 1.
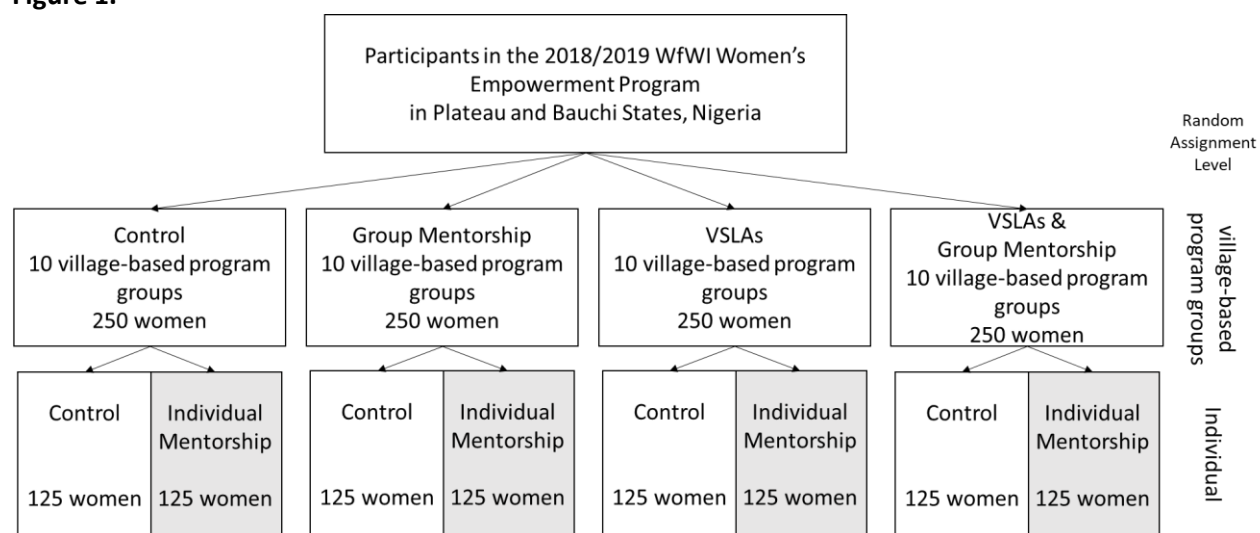
Data Collection

Data collection was done through in-person surveys with all women enrolled in the study at the following moments:

- Baseline: March and April 2018, prior to start of the WfWI yearlong women's empowerment and business training
- Midline: May and June 2019, immediately following the completion of the yearlong program
- Endline: Originally scheduled for March and April 2020, due to COVID postponed to June 2021

Outcomes

Our primary outcome measures are:

- Economic wellbeing
    - Income: Any income last 30 days, total income
    - Assets: asset listing durable, animal, land
    - Savings: report saving, total savings value
    - Loans: requested a loan, received a loan, highest loan amount
    - Experience of economic shocks and food security
- Business activity
    - Number of income generation activities employed
    - Business active for which received training
    - Receive payments for business
    - Total business earnings
- Business practices
    - Record keeping: track business performance, keep business records, plan future sales
    - Business investments: Plan to make large purchases for this business
    - Engagement in business promotion (visiting competitors, ask customers about improvements, talked to former customers, use special offer)
    - Negotiating better prices with suppliers
    - Sell goods on credit
    - Run out of stock
    - Manages and maintains budget
- Business support
    - Do you seek information or guidance on business from others
    - Self confidence in business

Secondary outcomes for this study are

- Health and wellbeing of women program participants and their families
    - Subjective wellbeing
    - Experience of shocks
    - Positive coping strategies employed
    - Defer medical treatment due to economic hardship
    - School fees paid on time

- o Self-efficacy scale
- o Locus of control
- o Social group participation
- Decision Making and Gender
  - o Involvement of women in household decision making (crops, animals, food expenses, hide money from spouse, spouse compel giving money)
  - o Women's name on land deed

Missing Data and Attrition

We will test for differential levels of attrition by treatment status. If attrition is less than 10 percent and uncorrelated with treatment status, we will analyze our outcomes without making corrections. If attrition is greater than 10 percent or correlated with treatment status, we will include Lee bounds for our treatment effects.

Measurement Issues

Variables that have limited variation will not be included in the output tables for outcomes analyzed. If variables have extreme values or outliers any corrections made to the variables will be reported. If corrections are made within the primary outcomes a footnote will include results when corrections are made as compared to when they are not.

Analysis

We will estimate impacts of the group mentorship, VSLAs and both interventions using the following specification:

$$(1) \quad Y_{iv} = \alpha + \beta_1 VSLA_v + \beta_2 GrpMentor_v + \beta_3 Both_v + state_v + previous\_exposure_v + u_i$$

This estimate will be clustered at the village-based program group level. We will include controls for the variables used in stratification: state and previous program exposure. We will also include any individual characteristics of concern that were not balanced at baseline.

We will also estimate the impacts of the individual mentorship using the following specification:

$$(2) \quad Y_{iv} = \alpha + \beta_1 Ind\_Mentor_i + \beta_2 VSLA_v + \beta_3 GrpMentor_v + \beta_4 Both_v + \beta_5 VSLA_v * Ind\_Mentor_i + \beta_6 GrpMentor_v * Ind\_Mentor_i + \beta_7 Both_v * Ind\_Mentor_i + state_v + previous\_exposure_v + u_i$$

Assignment to individual mentorship was done at the individual level, however, due to many program elements implemented at the village-based program group level this equation will be estimated both unclustered and clustered at the village-based program group level.

Pooled Effects

Due to the small sample size, we are concerned about power for estimating our primary and secondary outcomes of interest. For this reason, we will also estimate impacts pooling treatments for VSLA and Group Mentorship interventions using the following specifications:

$$(3) \quad Y_{iv} = \alpha + \beta_1 ANY\_GrpMentor_v + state_v + previous\_exposure_v + u_i$$

$$(4) \quad Y_{iv} = \alpha + \beta_1 ANY\_VSLA_v + state_v + previous\_exposure_v + u_i$$

Equations (3) and (4) will estimate the impacts of the interventions independently.   These estimates will be clustered at the village-based program group level and include controls for the variables used in stratification: state and previous program exposure. We will also include any individual characteristics of concern that were not balanced at baseline.

ANCOVA

Key analysis will be conducted with and without baseline value controls.

Heterogenous Effects

At this time, we do not expect to have power to conduct any heterogenous effects.

Multiple Hypothesis testing

Our primary outcomes of interest are economic wellbeing, business practices, and business activity. Due to our design including many outcome variables we will include multiple testing adjustments including for families of outcomes.