

# Mental Health And Positive Economic Empowerment Outcomes Among Female Youths In Bidibidi Refugee Settlement, Uganda

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**Abstract**—Youth in humanitarian settings are confronted with multifaceted and interrelated risks and vulnerabilities and, thus, face disproportionate effects on their mental health status. The mental health status of youth may be related to other aspects of their functioning, such as empowerment, yet its role in this domain remains understudied. This study assessed how mental health status relates to positive youth economic empowerment outcomes of female youth in the Bidibidi refugee settlement located in the West Nile region of Uganda.

Quantitative data collection methods were utilized in conducting a descriptive cross-sectional study in Bidibidi Refugee Settlement in August 2023, involving 136 female youths aged 18 to 30. The recruitment of youth was done by selecting households through systematic random sampling. Data was collected using interviewer-administered standardized questionnaires. Analysis was done using Stata version SE 17, and statistical relationships between variables were assessed using modified Poisson regression.

Less than half of the participants reported positive economic empowerment outcomes. While severe or extremely severe depression was the most (53.6%) reported. Youth experiencing mental health challenges were less likely to report positive economic empowerment outcomes. In contrast, those with access to mental health and psychosocial support services were more likely to report positive economic empowerment outcomes. For refugee youths to benefit from economic empowerment programs, providing them with access to mental health and psychosocial support services is essential.

**Keywords**— Youth, Refugees, Mental Health, Economic Empowerment Outcomes

## I. INTRODUCTION

Over 25 million people globally are refugees, with 76% residing in low to middle-income countries (UNHCR, 2022b). Uganda, hosting 1.5 million refugees primarily from South Sudan, has a significant youth population (24% aged 18-30) among its refugees[2]. The Bidibidi refugee settlement in West

Nile is the largest in Uganda, accommodating over 227,996 refugees, many of whom fled violent conflict [3]. Bidibidi was established in 2016; unfortunately, the persisting insecurity increases the chances of prolonged displacement (Amanda George (UNEP / OCHA Joint Unit) and Theresa Dearden (UN Environment), 2019)

Host communities often struggle to support the rising refugee numbers, leading to resource shortages that exacerbate issues like inadequate housing, limited arable land, and food scarcity [5], [6], [7]. Many refugees then face mental health challenges due to unfulfilled basic needs (Ridley et al., 2020). There have been rising suicide rates in humanitarian settings in Uganda, with Bidibidi accounting for 28% of the cases [9], [10]. According to the Multi-Sector Needs Assessment, 40% of households reported that their family members facing mental health issues received no psychosocial support (OPM, 2018). Access to healthcare is hindered by provider burnout and loss of trust in the health system [11], [12].

Girls face heightened vulnerability and exposure to abuse through transactional sex, child marriage, and adolescent pregnancies (Waterworth et al., 2015). Empowering young people in humanitarian settings has been proposed to help mitigate the multifaceted and interrelated risks and vulnerabilities they face as a proven approach to increased asset accumulation, longer periods of education, improved social relationships, and better healthcare outcomes. This is additional to health systems strengthening to meet the unique needs of young people [14], [15].

Uganda's refugee policy emphasizes refugee integration and self-sufficiency, making economic empowerment crucial for the country's refugee response [16], [17]. However, there is limited evidence regarding the economic empowerment outcomes of youth despite available support interventions such as cash transfers, income generation training, school re-enrollment, and startup capital.

Mental illness is a leading cause of morbidity among youth, particularly affecting pregnant young women and young mothers (Ruzibiza, 2021). Without intervention, mental health issues can hinder

education and economic opportunities and are linked to significant economic losses globally [20].

Migrant youth, especially, face challenges accessing social services, consequently impacting their mental health and healthcare-seeking [14], [21]. Since 50% of mental health disorders start during adolescence (Austin et al., 2008), integrating mental health interventions into youth programs is critical. Unfortunately, mental health disorders go undetected, untreated, and under-resourced despite their prevalence. Some initiatives to increase investment in youth mental health include projects, technical resources and policy briefs [24], program guidance [25], [26] and global reports dedicated to mental health (UNICEF, 2021). One such intervention is the Women, Adolescents and Youth (WAY) Programme.

The Women, Adolescents and Youth (WAY) Programme in Northern Uganda and the West Nile region aimed to enhance gender equality and socioeconomic empowerment for women and girls. It promotes Sexual and Reproductive Health Rights (SRHR) through youth-led community initiatives and safe spaces for support and education (UNFPA, 2018). By addressing both demand and supply for SRHR and gender-based violence (GBV), the WAY Programme equips young people with vital resources for health and personal growth.

This study assessed the relationship between mental health, social support, and access to mental health services in fostering economic empowerment among youth in Bidibidi, drawing from the WAY Programme, highlighting the importance of linking mental health and youth empowerment outcomes for improved interventions.

## II. METHODS

### *Study Design and Setting*

This descriptive cross-sectional study utilized quantitative data collection methods in the Bidibidi Refugee Settlement in August 2023 and involved 136 female youths aged 18 to 30. Bidibidi Refugee Settlement has an estimated population of 54,719 youth [27] in its five Zones. The study was conducted in Zone 1, which has the largest population. The study focused on youth participating in the UNFPA-supported WAY Program.

### *Study Population and Inclusion Criteria*

Study participants had to have resided in Bidibidi for 6 to 60 months, which was considered ample time to have experienced the settlement's environment, integration, and potential economic empowerment. Additional criteria included willingness to participate, previous or current participation in the WAY program, and availability for data collection.

### *Sample Size Calculation*

A sample size of 136 was calculated using the WHO's community survey formula, based on a prevalence estimate of 18% for youth benefiting from economic empowerment interventions that is  $n = [Z^2 (r) (1-r) (f) (1.1)] / [(e^2) (p) (nh)]$

Where: n= number of households.

$Z^2 = 1.96^2$ , where 1.96 is the Z value for 95% confidence level

r = estimated prevalence (in this case, the number of youths that have ever benefited from economic empowerment interventions, estimated at 18% from the WAY program document (UNFPA, 2023)

1.1 = factor necessary to raise the sample size by 10% to allow for non-response

f = design effect of 1 since we considered households in one Zone

e = margin error to be tolerated, which is 5%

p = the proportion of the total population that the study subgroup comprised, in this case, 0.23, the proportion of the youth population aged 18-30 (UBOS et al., 2017).

nh = average household size 8 (Dan Church Aid., 2017). Therefore,  $n = [1.96^2 (0.18) (1-0.18) (1) (1.1)] / [(0.0025) (0.23) (8)]$ .  $n = 135.6$  households = 136 Households

### *Sampling Procedure*

Systematic random sampling was used to select households with youth supported under the WAY program, with the assistance of the WAY program team in the refugee camp. A sampling interval of 10 was calculated. A starting point was determined, and every 10th household was sampled until the target was achieved.

### *Data Collection Methods and Tools*

Data were collected via interviewer-administered surveys using a pretested standardized questionnaire that included sociodemographic information, perceived social support, access and utilization of mental health and psychosocial support and mental health status (DASS-21). The questionnaires were electronically completed through the Microsoft Forms database and executed using a portable tablet. The interviews took 15 - 20 minutes.

### *Data Collection Procedure*

After obtaining approvals, the researcher pretested the questionnaire with 30 youth. The researcher then analyzed the pretest data for response patterns and addressed emerging issues by making relevant revisions to the questionnaire, including rephrasing and removing redundant questions. The data was then collected for ten days. All files and data collected during this study were stored on a password-protected tablet and TEAMS MICROSOFT cloud, which was only accessible by password.

### *Variable Measurement*

Measurement of the dependent variable (positive outcomes of youth economic empowerment) was informed by the United Nations Technical guidance on youth empowerment, including readiness for market and employability, increased access to resources and increased income (Macquarrie, 2021). Readiness for market and employability was assessed by having received support to continue education. Increased access to resources was assessed by mobile phone ownership and financial decision-making at the household level. In contrast, increased income was assessed by being employed and having one's

earnings change since they joined the economic empowerment Programme.

Mental health status was assessed using the DASS-21. Scoring for depression was done as  $\leq 9$  (normal), 10-13 (mild), 14-20 (moderate), 21-27 (severe), and 28+ (extremely severe). For anxiety,  $\leq 7$  (normal), 8-9 (mild), 10-14 (moderate), 15-19 (severe), 20+ (extremely severe). For stress,  $\leq 14$  (normal), 15-18 (mild), 19-25 (moderate), (severe), and 34+ (extremely severe) [31].

Finally, a binary outcome was formulated after classifying those with normal-moderate as not indicated for depression, anxiety, or stress and those classified as severe and extremely severe indicated for depression, anxiety, or stress. Mental and psychosocial support service access was assessed by asking if the respondent accessed mental health services from any service provider and if they had not had any challenges accessing the service. Having social support was assessed by asking if the respondent either stayed with a family member other than their child (ren), had a close friend of their age group, or had a good relationship with their parents.

#### *Data Analysis*

Data was downloaded and exported to Stata version SE 17 for analysis. Data completeness and consistency were checked by running frequencies and percentages at univariate analysis. Statistical relationships between variables were analyzed using Generalized linear modelling (GLM) with modified Poisson regression, which yields prevalence ratios (PR), instead of ordinary logistic regression, which yields odds ratios. Odds ratios tend to overestimate the strength of association in cases where the primary outcome is more prevalent (Schmidt & Kohlmann, 2008), and the prevalence of positive economic empowerment outcomes was 36.7%. At the multivariable level, all explanatory variables with  $p \leq 0.2$  at the bivariate analysis were included in a backward stepwise generalized linear model to examine their association with the outcome further while controlling for other explanatory variables by calculating Adjusted Prevalence Ratios (aPR). The level of significance was assessed at  $p < 0.05$  and 95% confidence interval (CI). The model's goodness of fit was tested with the Akaike Information Criterion (AIC), selecting the model with the least AIC value (Chaurasia & Harel, 2012). Three models were run to assess the association between the outcome and mental health status, social support and access to mental health and psychosocial support while controlling for sociodemographic variables.

#### *Ethical Considerations*

The study respected participants' autonomy, sought informed consent, and received approvals from the University of East London and, local authorities in Bidibidi Refugee Settlement and the district health team.

### III. RESULTS

#### *Respondents' sociodemographic characteristics*

Nearly half (49.4%) of the respondents were in the 20-24 age category, almost all (93.2%) were Christians, and the others were Muslims. Most (55.1%) of the respondents were married, and over three-quarters (83.8) had completed primary school education. In addition, over three quarters (86.0) were not employed and close to a half (47.8%) had 1-2 children, with over three quarters (77.6%) having had their first child when they were between 15-19 years old. Over half (64.5%) had spent 36-60 months in the camp.

#### *Prevalence of different severities of stress, anxiety and depression among participants*

Severe or extremely severe stress, anxiety and depression were exhibited by 22(16.1%), 59(43.4%) and 73(53.6%) of the participants, respectively. There were some with comorbidities of different severities.

#### *Percentage of participants who reported positive economic empowerment outcomes.*

Of 136 participants, 50 (37.8%) reported positive economic empowerment outcomes.

#### *Association between mental health status, social support, access to mental health support and positive economic outcomes among female youths*

After adjusting for sociodemographic characteristics, individuals with poor mental health had a 10% lower likelihood of reporting positive economic empowerment outcomes than those without. In addition, those who reported having access to mental and psychosocial support services were two times more likely to report positive economic empowerment outcomes compared to those who did not report access, as indicated in Table 1. There was no statistically significant relationship between social support and positive economic empowerment outcomes at the multivariable level.

Variables	Bivariate analysis	Multivariable Analysis (models 1-3)		
		Mental health status	Social support	Mental health and psychosocial support
	cPR(95%CI)	aPR(95%CI)	aPR(95%CI)	aPR(95%CI)
<b>Age category (ref is 18-19)</b>				
20 – 24	2.0(0.99-4.17)	2.1(0.61-7.29)	4.87(0.69-34.29)	4.67(0.62-34.96)
25 – 30	1.8(0.84-3.99)	1.5(0.42-5.10)	2.98(0.41-21.67)	3.00(0.39-23.16)
<b>Religion (ref is Christian)</b>				
Non-Christian	0.88(0.33-2.28)	-	-	-
<b>Marital status (ref is married)</b>				
Single	0.62(0.35-1.10)	0.52(0.07-3.61)	0.19(0.01-2.50)	0.11(0.02-1.94)
Divorced/Widowed	1.53(0.92-2.57)	1.14(0.79-1.63)	1.53(0.90-2.61)	1.30(0.76-2.24)
<b>Highest level of education (ref is primary)</b>				
Secondary/Vocational	1.29(0.76-2.18)	-	-	-
<b>Occupation (ref is Not employed)</b>				
Businessperson	2.24(1.43-3.5)	1.05(0.72-1.53)	1.31(0.80-2.15)	1.02(0.58-1.82)
Student	1.53(0.73-3.24)			
<b>Number of children (ref is No children)</b>				
3+	1.22(0.74-1.99)	1.2(0.85-1.63)	1.54(0.87-2.75)	1.37(0.72-2.58)
<b>Age at first child (ref is No children)</b>				
15-19	3.7(0.56-24.70)	3.0(0.57-15.90)	2.97(0.40-22.06)	2.76(0.35-21.58)
20+	1.67(0.48-26.3)	3.5(0.63-20.14)	2.67(0.28-25.83)	2.28(0.23-22.84)
<b>Length of camp stay (ref is &lt;36 months)</b>				
36-60 months	1.87(1.06-3.31) *	1.2(0.68-2.00)	1.37(0.56-3.36)	1.50(0.59-3.83)
<b>Poor mental health (ref is No)</b>				
Yes	0.12(0.69-0.21)	0.10(0.03-0.29)		
<b>Have social support (ref is No)</b>				
Yes	1.96(1.01-3.8) *		1.07(0.48-2.37)	
<b>Access to mental and psychosocial support (ref is No)</b>				
Yes	3.2(2.47-4.16)			2.02(1.32-3.10)

**Table 1: Association between mental health status, social support, access to mental health support and positive economic outcomes among female youths in Bidi-bidi refugee camp**

\* Significant at  $P < 0.05$ ; \*\* Significant at  $P < 0.01$ ; \*\*\* Significant at  $P < 0.001$

#### IV. DISCUSSION

##### *Positive economic empowerment outcomes and mental health among participants*

Less than half of the participants reported positive economic empowerment outcomes. This is a low success rate for a program whose goal was to enhance women's and young people's access to and utilization of quality SRHR and GBV services. This is, however, not so different from findings from a program on economic activity and vulnerability among adolescent refugee girls in Ethiopia, where overall, the girls in the treatment and control arms had approximately equal odds of working for pay at the end line (Stark et al., 2018). It could be due to the different challenges refugee youths face and the sustainability of the outcomes. Not many studies have evaluated economic empowerment outcomes among refugee youths beyond those limited to education and sexual and reproductive health outcomes.

Severe or extremely severe depression was the most (53.6%) reported, followed by anxiety (43.4%) and stress (16.1%) in this study, in addition to comorbidities of the different severities. The prevalence of severe depression symptoms was far higher than the 13.5% reported among young urban refugee women in Kampala (Logie et al., 2020), 29.0% depression and 21.4% anxiety reported among unaccompanied young refugees in Germany (Hornfeck et al., 2023). However, it was higher than 42% for depression and higher than 57% for anxiety reported among Bhutanese Refugees in Australia (Lumley,

Katsikitis, & Statham, 2018). Depression and anxiety rates were also lower than 62.92% and 57.46%, respectively, reported among clinic-attending Syrian refugee women in Jordan (Brooks et al., 2022). No level of poor mental health is acceptable for any population, and efforts to address this among female youth refugees are necessary.

##### *Association between mental health status, social support, access to mental health support and positive economic outcomes among female youths*

Respondents with poor mental health had a 10% lower likelihood of reporting positive economic empowerment outcomes. This could be due to the effect of mental health on an individual's overall functionality. Besides this, the bidirectional association has been reported with some research indicating that negative socioeconomic factors like unemployment may also affect mental health (Bambra et al., 2010). Nevertheless, mental health needs must be addressed to empower refugee youths economically. The observed association between access to mental and psychosocial support services and a two times higher likelihood of reporting positive economic empowerment outcomes supports this need. It has been argued that linking refugees with mental disorders to existing support services to ensure accessible, supportive programmes and services is important for their better livelihood (Dsouza, Saran, & Krishnan, 2021).

There was no statistically significant relationship between social support and positive economic empowerment outcomes at the multivariable level. Other studies among refugees (Lumley et al., 2018; Sierau, Schneider, Nesterko, & Glaesmer, 2019) reported no significant association between social support and mental health, which may explain the relationship between social support and positive economic empowerment outcomes due to the possible bidirectional effects. However, some studies among refugee children and adolescents have indicated a positive association between social support, especially strong family relationships (Chase, 2012) after indicating its contribution to trauma recovery (Fazel, Reed, Panter-Brick, & Stein, 2012), which may have effects on economic empowerment.

#### V. CONCLUSION

Less than half of the participants reported positive economic empowerment outcomes. At the same time, severe or extremely severe depression was the most (53.6%) reported, followed by anxiety (43.4%) in this study and comorbidities of the different severities. Poor mental health was associated with a lower likelihood of reporting positive economic empowerment outcomes. In comparison, access to mental and psychosocial support services was associated with a higher likelihood of reporting positive economic empowerment outcomes. Key efforts to address mental health issues, especially improving access to mental and psychosocial support services, are necessary if economic empowerment programs benefit refugee youths.

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