

A new study in Nigeria shows that depression is associated with a lower labor force participation and reduced investments in children's schooling.

### How Depression Affects Welfare in a Context of Conflicts

Depression is a common illness that affects more than 300 million people worldwide. Unfortunately, its implications and those of other mental health problems are often neglected in public health policies, particularly in developing country settings where more visible health issues get prioritized.

## The Project

A new study by the World Bank looks at the first nationally representative estimates of depression in Nigeria to shed light on how it may be linked to economic outcomes, such as labor market and human capital investments, especially in heavy-conflict areas or for individuals or communities who have experienced shocks or deaths. In recent years, Nigeria has suffered from security crises caused by conflicts between ethnic groups, farmers, and herdsmen. Some of the more egregious incidents have been committed by Boko Haram, which is responsible for terrorist attacks including the abduction of more than 200 schoolgirls in 2014, and an estimated 30,000 deaths since 2011. While the effects of adverse events (which we define as conflicts, shocks, and/or deaths) on physical loss tend to be easier to measure, very little is usually known about their psychological effects and implications for decision-making.

In light of the need to understand the economic impact of these events in this context, the Nigerian National Bureau of Statistics, in collaboration with the World Bank, collected a nationally representative sample via a new round of the General Household Survey Panel conducted in 2015-2016. In addition to the standard welfare measures and information about adverse events, the survey included a measure of depression of the respondent using the Center for Epidemiological Studies Depression scale (CESD). Versions of this scale have been widely used and tested in various settings as population-based measures for self-reported depression.



### The Results



## One in five Nigerian respondents have depressive symptoms.

Having representative statistics of mental health at the national level is rare, so while these results are not surprising, they are telling. On average, 22% of Nigerian respondents - 74% who are household heads, 27% who are female - have depressive symptoms.



## Depression is strongly associated with adverse events, especially conflict.

As expected, these events are positively associated with depression. Still, their effects vary. For example, less than 30% of respondents who are affected by a family death or a community shock (such as droughts) have depressive symptoms. This contrasts with more than 50% for respondents affected by conflicts; this rate of depression is more than twice the national average.



## As expected, there are strong socio-economic gradients at play with respect to depression.

Being in the bottom 30% of the income distribution is positively associated with depression. Even worse,

adverse events affecting these households add another 10 percentage points to the probability of the respondent having depressive symptoms. Poverty and shocks go hand in hand.



# There is a strong correlation between depression and labor market outcomes.

Specifically, a respondent who has depressive symptoms has an eight percentage points lower probability of participating in the labor market. While the overall effects are similar by gender, depression drives lower labor market participation in agricultural activities for men and in non-farm self-employment for women (which is mainly driven by gender sectoral distribution). In our sample of workers, there is no correlation in terms of number of hours worked.



#### Finally, depression also affects child investments.

For example, families with a parent who has depressive symptoms spend nearly 30 US\$ (in current terms) less in educational expenses annually, driven by lower investments among older girls between 12 and 18 years of age. In addition, younger children (particularly girls) between 5 and 11 years of age who live with a parent with depressive symptoms are 2.5 percentage points more likely to work.



#### **Policy Implications**

Taken together, these findings suggest that depression is likely to have both short- and long-term effects on welfare in Nigeria. It also seems to be affecting

intra and inter-generational channels of upward mobility. With almost two out of every five Nigerian households affected by shocks, deaths, and/or conflicts (key drivers of depression), further understanding these costs and linkages is essential. Conflict- and shock-mitigating policies (related, for example, to insurance, prices, and security) may

have far higher economic impacts than what is traditionally measured. Thus, policy makers should take

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the potential amplified costs of adverse events into account when making these decisions. Last, it is of utmost importance to integrate solutions in mental health policies

to provide psychological support to affected populations. These policies may include implementing mental health and psychosocial programs which have been tested in similar settings, and changing the social norms related to communication about and treatment of depression and depressive and stress symptoms. By directly treating and minimizing

the effects of depression experienced by victims of conflicts, deaths and shocks, we may help mitigate these incidents' overall economic impact in society.

#### About eMBeD

The Mind, Behavior, and Development Unit (eMBeD), the World Bank's behavioral science team in the Poverty and Equity Global Practice, works closely with project teams, governments, and other partners to diagnose, design, and evaluate behaviorally informed interventions. By collaborating with a worldwide network of scientists and practitioners, the eMBeD team provides answers to important economic and social questions, and contributes to the global effort to eliminate poverty and enhance equity.

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