

# Undergraduate student mental health at Makerere University, Uganda

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*There is little information on the current mental health of University students in Uganda. The present study was carried out to determine the prevalence of depressed mood and suicidal ideation among students at Makerere University. Two student samples participated. Sample I comprised 253 fresh students admitted to all faculties at the University in the academic year 2000/2001, selected by a simple random sampling procedure. Sample II comprised 101 students admitted to the Faculty of Medicine during the academic year 2002/2003. The prevalence of depressed mood was measured using the 13-item Beck Depression Inventory (BDI). The prevalence of depressed mood (BDI score 10 or more) was significantly higher in sample I (16.2%) than sample II (4.0%). Sample I members were significantly more likely than those of sample II to report lifetime and past week suicide ideation. Thus, there is a high prevalence of mental health problems among the general population of new students entering Makerere University and this is significantly higher than for new students in the Faculty of Medicine.*

**Key words:** Students, mental health problems, depressed mood, suicidal ideation

In Uganda, many students who join University and other institutions of higher learning have lived through a variety of difficulties, including high levels of poverty, loss of traditional social support and HIV/AIDS epidemic. Under these circumstances, it would be expected that, with the added pressure of studies, University students would exhibit high levels of psychological distress. However, the prevalence of mental health problems among University students in Uganda is unknown. The present study was carried out to determine the prevalence of probable depressed mood and suicidal ideation among two populations of fresh students at Makerere University, Kampala.

## METHODS

Two samples were taken from undergraduate students at Makerere University. The first (sample I) included 253 students from all faculties joining various courses during the academic year 2000/2001. The second (sample II) included 101 students taken from those joining the Faculty of Medicine during the academic year 2002/2003. At the time of surveys, free peer counseling services were readily available to the group admitted during the academic year 2002/2003, but not to the rest of the student body, even though counseling and guidance services were available at the University Hospital.

The thirteen-item Beck Depression Inventory (BDI) (1) was used to estimate the probable prevalence of depression. The BDI was scored on a four-point scale from 0 to 3, giving a possible range of 0-39. A score of 10 or above was considered to be indicative of probable depression.

The prevalence of suicide ideation was measured with a frequency count of "yes" response to each of the following questions which are included in the Response Inventory for

Stressful Life Events (RISLE) (2-4): a) Have you ever experienced suicide thoughts along with the wish to end your life by suicide? b) Did you experience suicide thoughts along with the wish to end your life by suicide last week?

Data were entered using Epi Info version 6.04 and analyzed with SPSS version 11.0. P-values, odds ratios and 95% confidence intervals were calculated to determine significance levels.

## RESULTS

Sample II students were older than sample I (mean age  $23.5 \pm 5.0$  compared to  $21.3 \pm 2.4$  years,  $t = -4.026$ ,  $df = 334$ ,  $p = 0.0001$ ). There was no statistical difference in marital status between sample I (7.3% married) and sample II (14.1% married) ( $\chi^2 = 2.9$ ,  $df = 1$ ,  $p = 0.09$ ,  $OR = 0.48$ ,  $95\%CI = 0.20-1.12$ ). There were no significant differences between the two groups for distribution by sex (63.6% males in sample I and 69% in sample II;  $\chi^2 = 0.69$ ,  $df = 1$ ,  $p = 0.40$ ,  $OR = 1.27$ ,  $95\%CI = 0.76-2.17$ ). Twenty nine students (11.5%) in sample I had paid employment in addition to their studentships, while no student in sample II had additional employment.

Thirty-seven respondents out of 228 (16.2%) from sample I and four respondents (4.0%) from sample II attained a BDI score of 10 or higher ( $\chi^2 = 8.49$ ,  $df = 1$ ,  $p = 0.004$ ,  $OR = 4.67$ ,  $95\%CI = 1.61-18.50$ ).

Sample I members were more likely than those of sample II to report lifetime experience of suicide ideation (56.0% vs. 8.9%,  $\chi^2 = 63.32$ ,  $df = 1$ ,  $p = 0.00001$ ,  $OR = 6.3$ ,  $95\%CI = 6.15-30.42$ ) and past week experience of suicide ideation (15.5% vs. 1.0%,  $\chi^2 = 13.49$ ,  $df = 1$ ,  $p = 0.0002$ ,  $OR = 15.5$ ,  $95\%CI = 2.96-41.38$ ). There were no significant differences on any variable between males and females in either sample.

## DISCUSSION

The rate of depression of 16.2% for the first year general University sample based on BDI scores of 10 or higher is close to the rate of 13.7% that Ovuga et al (5) reported using the RISLE among a comparable sample of fresh students at Makerere University six years earlier, but higher than that reported by German and Arya (6) (10.8%), who used hospital records in their study. In an investigation carried out in students in Turkey, Bostanci et al (7) reported a prevalence rate of 32.1% for depression using the 21-item BDI, with depression being associated with poor academic performance. In a study from Sao Paulo, Brazil, Nogueira-Martins et al (8) reported a depression rate of 44% and a suicidal behavior rate of 18%, with depression being responsible for 4.5% of suspensions of studies. Results from Ibadan, Nigeria indicated that 12% of pre-clinical students (9) and 21% of clinical students (10) had mental health problems due to family problems, financial hardships, difficulties in relationships and fear of examinations.

Completed suicide does occur among students at Makerere University, and the present results confirm that the risk of suicide exists, with both student samples reporting lifetime suicide ideation, and past week experience of suicide ideation, although the rates were significantly higher in the first year general University sample.

A recent study by Nalugya (11) indicated a high rate of mental disorders (21%), mainly depression and anxiety disorders, among secondary school students in Mukono district, Central Uganda, suggesting that students joining Makerere University might have carried their mental health conditions from earlier years. The results suggest the need for the provision of mental health promotional services at the University, including mental health educational and screening services.

The Faculty of Medicine already has counseling services provided by trained student peer counselors. Though the effectiveness of the service has not been evaluated, it is possible that the low rate of depressed mood among students of the sample II of the present study is to be partly attributed to the availability of student peer counseling services at the Faculty. It is also probable that the lower rate of depressed mood in sample II was due to the tendency of medical students to deny and avoid help-seeking for the experience of emotional problems (12).

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