

# Depression and Anxiety Cases in Herat, Afghanistan: Awareness, Accessibility to Mental Health Services and Treatment Gap

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# ABSTRACT

**Background:** The prevalence of mental disorders is increasing in the world, with anxiety and depression being the most common. In 2017, 3.3% and 4.0% of Afghan population lived with depression and anxiety, respectively. This study aims to identify the treatment gap and level of accessibility of people with depression and/or anxiety to mental health services in Herat province of Afghanistan.

**Methods:** This institutional-based case-series study was conducted from October 2021 to January 2022. Data on sociodemographic characteristics and the severity of depression and anxiety was collected from Herat Mental Health Registry using a 16-item structured questionnaire. Statistical analyses were performed in IBM SPSS Statistics (version 27).

**Results:** A total of 133 participants with a mean age of  $36.7 \pm 9.8$  years including 99 (74.4%) male and 34 (25.6%) female made up study participants. One hundred and twenty-one (91.0%) were aware of their mental illness, 51 (38.3%) had access to mental health, 31 (23.3%) received counselling, 26 (19.5%) received medication, and 17 (12.8%) received both medication and counselling. The severity of mental illnesses was inversely related to the level of access and receiving counselling services in this study.

**Conclusion:** This study revealed the low level of accessibility, huge treatment gap and a considerable discrepancy in the level of awareness and service use among study participants. Results from this study adds to the existing literature on low level of accessibility and treatment gap in low and middle-income countries. This urges international community to dedicate resources for the betterment of services in traumatized regions.

Keywords: Anxiety; Depression; Mental health; Treatment; Counselling

# INTRODUCTION

The prevalence of mental disorders has shown a substantial rise in the world [1], with anxiety and depression being the most common (3.8% and 3.4%, respectively [2]. These illnesses significantly impair personal functioning [3], and negatively impact on psychosocial, economy, and cultural relationships of individuals with the community [4].

A 2017 report of WHO estimated the prevalence of depression and anxiety in Afghanistan to be 3.3% and 4.0% respectively [5]. In line with that, a 2018 report of the National Mental Health Survey and Assessment of Mental Health Services in Afghanistan estimated

the prevalence of depression as 4.86% and anxiety as 2.78% [6,7]. Recent political and socioeconomic changes in Afghanistan raised this estimates. A recent study among university staff revealed a 54.8% prevalence of depression and 58.6% prevalence of anxiety in Herat, Afghanistan [8].

The current estimates on the prevalence of mental disorders must be viewed with caution, because of significant underreporting, the most important reasons of which are accessibility, stigma, and insufficient resources [9-16], leading to considerable treatment gap especially in Low and Middle-Income Countries (LMIC) [1,17-21]. The magnitude of mental health treatment gap in LMIC has been

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#### predicted to be 76%-90% [15].

According to the United Nations, WHO and Narin 2022, recent political changes in Afghanistan has brought the health system at risk of collapse; and poverty has escalated to critical magnitude of 95% among general Afghan population [22-24].

This study aims to assess the treatment gap, treatment mode, and level of accessibility of people with depression and/or anxiety to mental health services in Herat province of Afghanistan. The results of this study may provide information for policy makers, public health authorities and managerial staff, to develop and implement strategies to better tackle this problem in the region.

# METHODOLOGY

#### Study setting

This institutional-based case-series study was conducted from October 2021 to January 2022.

#### Study population

The population of this study was retrieved from the Mental Health Registry of the staff of Herat University and non-governmental organizations (NGOs). This included all people with a diagnosis of depression and/or anxiety according to the Dari-translated version of 42-item depression, anxiety and stress scale (DASS-42).

Herat Mental Health Study Group originally conducted the investigation to determine the magnitude and severity of mental illnesses among the staff of Herat University and NGOs (Najm et al., personal communication) [8].

#### Data collection

Data on sociodemographic characteristics and the severity of depression and anxiety were collected by a psychiatrist from Herat Mental Health Registry using a 16-item paper-based structured questionnaire, and entered in IBM SPSS Statistics (version 27).

#### Statistical analysis

Statistical analyses were performed in IBM SPSS Statistics (version 27). Continuous data with normal distribution were presented with mean and Standard Deviation (SD). Non-normal continuous variables are presented with median and Interquartile Range (IQR). Categorical variables are shown with numbers and percentages. The association between two sets of categorical variables was assessed using a Chi-square test. The significance value was set to 0.05 in all analyzes.

#### Ethical considerations

The study protocol was reviewed and approved by the Human Ethics Committee of Herat University (approval number #200921).

# RESULTS

#### Socio demographic characteristics of study participants

A total of 133 staff from Herat University (73; 54.9%) and NGOs (60; 45.1%) with a mean age of  $36.7 \pm 9.8$  years were included in this study. Of the 133 participants, 99 (74.4%) were male, 110 (82.7%) were married, 70 (52.6%) were mid-level staff, 61 (45.9%) spoke to their friends, while 15 (11.3%) spoke to their line managers about

their mental illness.

Over nine-tenth of participants (121; 91.0%) were aware of their mental illness, 51 (38.3%) had access to mental health, 31 (23.3%) received counselling, 26 (19.5%) received medication, 17 (12.8%) received both medication and counselling, 29 (21.8%) had access to mental health guideline at their workplace.

Participants believed that economic constraints (75.2%), insecurity (57.9%), political instability (47.4%), cultural barriers (46.6%), and unemployment (40.6%) were the most common reasons for mental illnesses.

# Severity of depression and anxiety among study participants

Table 1 displays the severity of depression according to the sociodemographic factors of study participants. Off all factors included in this study, there was a significant association between severity of depression with education (p=0.018) and talking with friends about mental illness (p=0.018); other sociodemographic factors were not significantly associated with the severity of depression.

Table 2 shows the severity of anxiety among study participants according to the sociodemographic characteristics of study participants. There was no significant association between the severity of anxiety with all sociodemographic factors included in this study.

Although study participants believed that economic constraint, insecurity, political instability, cultural barriers and unemployment were the main causes of mental illnesses, these factors were not significantly associated with the severity of depression and anxiety in this study (Tables 1 and 2). Of the 133 cases in this study, 5 (3.8%) suffered from mild depression and mild anxiety, while 46 (34.6%) suffered from mild or moderate depression and anxiety at the same time. Thirty-eight (28.6%) of participants suffered from severe or extremely severe depression and anxiety at the same time, while 11 (8.3%) lived with extremely severe depression and anxiety. Table 3 displays the number and percentage of participants according to their access to mental health and the mode of treatment. Of significant concern is that a little over one-quarter (27.3%) of cases with extremely severe depression and anxiety had access to mental health, one third (36.3%) were taking medicine, and less than onefifth received counselling. The ratios of access to mental health and counselling have decreased with increasing severity, while the ratio of taking medicine has increased with increasing severity of mental illnesses in this study.

#### DISCUSSION

The purpose of this study was to determine the treatment gap, the treatment mode and the level of accessibility of depressed and anxious people to mental health services in Herat province of Afghanistan. This study was conducted after the August political changes in the country that have resulted in significant rise in socioeconomic and mental health problems in Afghan population.

The level of awareness about mental health among study participants was 91.0% this is in alignment with the results of a similar study in Bangladesh that reported 96.6% and 93.4% participant's awareness about depression and anxiety, respectively [25]. The high level of awareness among this study participant is reflected by their high level of education and their employment in

# Table 1: Distribution of the severity of depression among study participants.

| Depression                          |                |            |                       |                    |                           |             |                |
|-------------------------------------|----------------|------------|-----------------------|--------------------|---------------------------|-------------|----------------|
|                                     |                | Mild n (%) | Moderate n (%)        | Severe n (%)       | Extremely severe<br>n (%) | Total n (%) | P-value        |
| Age                                 | Under 45       | 24(22.9)   | 41(39.0)              | 23(21.9)           | 17(16.2)                  | 105(100)    | 0.38           |
|                                     | over 45        | 8(28.5)    | 12(42.9)              | 7(25.0)            | 1(3.6)                    | 28(100)     |                |
| Gender                              | Female         | 7(20.6)    | 11(32.4)              | 9(26.5)            | 7(20.5)                   | 34(100)     | 0.413          |
|                                     | Male           | 25(25.3)   | 42(42.4)              | 21(21.2)           | 11(11.1)                  | 99(100)     |                |
| Education                           | Up to 12 class | 4(9.1)     | 23(52.3)              | 12(27.3)           | 5(11.3)                   | 44(100)     | 0.018          |
|                                     | Bachelor       | 16(34.8)   | 18(39.1)              | 9(19.6)            | 3(6.5)                    | 46(100)     |                |
|                                     | Master and PHD | 12(27.9)   | 12(27.9)              | 9(20.9)            | 10(23.3)                  | 43(100)     |                |
|                                     | Married        | 25(22.7)   | 44(40.0)              | 28(25.5)           | 13(11.8)                  | 110(100)    | 0.238          |
| Marital status                      | Single         | 7(30.4)    | 9(39.1)               | 2(8.7)             | 5(21.8)                   | 23(100)     |                |
|                                     | Poor           | 6(14.3)    | 21(50.0)              | 7(16.7)            | 8(19.0)                   | 42(100)     | 0.096          |
| Economic status                     | Fair           | 26(28.6)   | 32(35.2)              | 23(25.2)           | 10(11.0)                  | 91(100)     |                |
| Access to mental<br>health services | Ves            | 14(27.5)   | 23(45.1)              | 9(17.6)            | 5(9.8)                    | 51(100)     | 0.44           |
|                                     | NO             | 18(22.0)   | 30(36.6)              | 21(25.5)           | 13(15.9)                  | 82(100)     |                |
|                                     | Ver            | 7(22.6)    | 12(41.0)              | 7(22.6)            | 4(12.0)                   | 21(100)     | 0.993          |
| Received mental health counselling  |                | 25(24.5)   | 10(41.9)              | 22(22.5)           | 4(12.9)                   | 102(100)    |                |
|                                     | NO             | 25(24.5)   | 40(39.2)              | 23(22.5)           | 14(13.8)                  | 102(100)    | 0.303<br>0.396 |
| Access to                           | Yes            | 7(26.9)    | 7(26.9)               | 6(23.1)            | 6(23.1)                   | 26(100)     |                |
|                                     | NO             | 25(23.4)   | 46(43.0)              | 24(22.4)           | 12(11.2)                  | 107(100)    |                |
| Mental health                       | Yes            | 10(34.5)   | 11(37.9)              | 4(13.8)            | 4(13.8)                   | 29(100)     |                |
| guideline                           | NO             | 22(21.1)   | 42(40.4)              | 26(25.0)           | 14(13.5)                  | 104(100)    |                |
| Talk with line                      | Yes            | 1(3.5)     | 9(31.0)               | 6(20.7)            | 13(44.8)                  | 29(100)     | 0.743          |
| manager                             | NO             | 7(6.7)     | 39(37.5)              | 22(21.2)           | 36(34.6)                  | 104(100)    |                |
| TT 11 1 ( · . 1                     | Yes            | 13(21.3)   | 19(31.1)              | 15(24.6)           | 14(23.0)                  | 61(100)     | 0.018          |
| Talk with friend                    | NO             | 19(26.4)   | 34(47.2)              | 15(20.8)           | 4(5.6)                    | 72(100)     |                |
|                                     |                | Cause of n | nental health problem | ns from participar | nts perspective           |             |                |
| Economic                            | Yes            | 23(23.0)   | 39(39.0)              | 23(23.0)           | 15(15.0)                  | 100(100)    | 0.417          |
|                                     | NO             | 9(27.3)    | 14(42.4)              | 7(21.2)            | 3(9.1)                    | 33(100)     |                |
| Insecurity                          | Yes            | 22(28.6)   | 28(36.4)              | 16(20.8)           | 11(14.2)                  | 77(100)     | 0.487          |
|                                     | NO             | 10(17.9)   | 25(44.6)              | 14(25.0)           | 7(12.5)                   | 56(100)     |                |
| Lack of job<br>Opportunity          | Yes            | 13(24.1)   | 21(38.9)              | 11(20.3)           | 9(16.7)                   | 54(100)     | 0.832          |
|                                     | NO             | 19(24.1)   | 32(40.5)              | 19(24.1)           | 9(11.3)                   | 79(100)     |                |
| Cultural barriero                   | Yes            | 13(21.0)   | 24(38.7)              | 14(22.6)           | 11(17.7)                  | 62(100)     | 0.568          |
|                                     | NO             | 19(26.8)   | 29(40.8)              | 16(22.5)           | 7(9.9)                    | 71(100)     |                |
| Health problems                     | Yes            | 16(29.6)   | 23(42.6)              | 12(22.2)           | 3(5.6)                    | 54(100)     | 0.131          |
| rieatti problems                    | NO             | 16(20.2)   | 30(38.0)              | 18(22.8)           | 15(19.0)                  | 79(100)     |                |

# Table 2: Distribution of severity of anxiety among study participants.

| Anxiety                             |                |            |                       |                    |                           |             |         |
|-------------------------------------|----------------|------------|-----------------------|--------------------|---------------------------|-------------|---------|
|                                     |                | Mild n (%) | Moderate n (%)        | Severe n (%)       | Extremely severe<br>n (%) | Total n (%) | P-value |
| Age                                 | Under 45       | 5(4.8)     | 37(35.2)              | 24(22.9)           | 39(37.1)                  | 105(100)    | 0.535   |
|                                     | over 45        | 3(10.7)    | 11(39.3)              | 4(14.3)            | 10(35.7)                  | 28(100)     |         |
| Gender                              | Male           | 1(2.9)     | 10(29.4)              | 8(23.5)            | 15(44.2)                  | 34(100)     | 0.558   |
|                                     | Female         | 7(7.1)     | 38(38.4)              | 20(20.2)           | 34(34.3)                  | 99(100)     |         |
| Education                           | Up to 12 class | 1(2.3)     | 16(36.4)              | 7(15.8)            | 20(45.5)                  | 44(100)     | 0.432   |
|                                     | Bachelor       | 4(8.7)     | 18(39.1)              | 8(17.4)            | 16(34.8)                  | 46(100)     |         |
|                                     | Master and PHD | 3(7.0)     | 14(32.6)              | 13(30.2)           | 13(30.2)                  | 43(100)     |         |
|                                     | Married        | 6(5.5)     | 38(34.5)              | 25(22.7)           | 41(37.3)                  | 110(100)    | 0.652   |
| Marital status                      | Single         | 2(8.7)     | 10(43.5)              | 3(13.0)            | 8(34.8)                   | 23(100)     |         |
| Economic status                     | Poor           | 2(4.8)     | 14(33.3)              | 8(19.0)            | 18(42.9)                  | 42(100)     | 0.799   |
|                                     | Fair           | 6(6.6)     | 34(37.3)              | 20(22.0)           | 31(34.1)                  | 91(100)     |         |
| Access to mental<br>health services | Yes            | 4(7.8)     | 18(35.3)              | 11(21.6)           | 18(35.3)                  | 51(100)     | 0.91    |
|                                     | NO             | 4(4.9)     | 30(36.6)              | 17(20.7)           | 31(37.8)                  | 82(100)     |         |
| Received mental                     | Yes            | 4(12.9)    | 12(38.7)              | 5(16.1)            | 10(32.3)                  | 31(100)     | 0.266   |
| health counselling                  | NO             | 4(3.9)     | 36(35.4)              | 23(22.5)           | 39(38.2)                  | 102(100)    |         |
| Access to                           | Yes            | 1(3.8)     | 11(42.3)              | 4(15.4)            | 10(38.5)                  | 26(100)     | 0.773   |
| medicine                            | NO             | 7(6.5)     | 37(34.6)              | 24(22.4)           | 39(36.4)                  | 107(100)    |         |
| Mental health                       | Yes            | 1(3.4)     | 9(31.0)               | 6(20.7)            | 13(44.8)                  | 29(100)     | 0.726   |
| guideline                           | NO             | 7(6.7)     | 39(37.5)              | 22(21.2)           | 36(34.6)                  | 104(100)    |         |
| Talk with line                      | Yes            | 5(33.3)    | 6(40.0)               | 2(13.3)            | 2(13.3)                   | 15(100)     | 0.784   |
| manager                             | NO             | 27(22.9)   | 47(39.8)              | 28(23.7)           | 16(13.6)                  | 118(100)    |         |
|                                     | Yes            | 4(6.6)     | 19(31.1)              | 15(24.6)           | 23(37.7)                  | 61(100)     | 0.68    |
| Talk with friend                    | NO             | 4(5.6)     | 29(40.3)              | 13(18.1)           | 26(36.1)                  | 72(100)     |         |
|                                     |                | Cause of m | nental health problem | ns from participar | nts perspective           |             |         |
| Economic                            | Yes            | 5(5.0)     | 36(36.0)              | 18(18.0)           | 41(41.0)                  | 100(100)    | 0.225   |
|                                     | NO             | 3(9.1)     | 12(36.4)              | 10(30.3)           | 8(24.2)                   | 33(100)     |         |
|                                     | Yes            | 4(5.1)     | 30(39.0)              | 14(18.2)           | 29(37.7)                  | 77(100)     | 0.712   |
| Insecurity                          | NO             | 4(7.2)     | 18(32.1)              | 14(25.0)           | 20(35.7)                  | 56(100)     |         |
| Lack of job<br>opportunity          | Yes            | 1(1.9)     | 21(38.9)              | 11(20.4)           | 21(38.9)                  | 54(100)     | 0.401   |
|                                     | NO             | 7(8.9)     | 27(34.2)              | 17(21.5)           | 28(35.4)                  | 79(100)     |         |
| Cultural barriers                   | Yes            | 3(4.8)     | 22(35.5)              | 13(21)             | 24(38.7)                  | 62(100)     | 0.942   |
|                                     | NO             | 5(7.0)     | 26(36.6)              | 15(21.1)           | 25(35.3)                  | 71(100)     |         |
| TT 11 11                            | Yes            | 6(11.2)    | 24(44.4)              | 10(18.5)           | 14(25.9)                  | 54(100)     | 0.031   |
| Health problems                     | NO             | 2(2.5)     | 24(30.4)              | 18(22.8)           | 35(44.3)                  | 79(100)     |         |

| Depression and anxiety             | Access to mental health services | Medicine | Counselling |
|------------------------------------|----------------------------------|----------|-------------|
| Mild (n=5)                         | 3 (60.0)                         | 1 (20.0) | 2 (40.0)    |
| Mild and moderate (n=46)           | 20 (43.5)                        | 9 (19.6) | 13 (28.3)   |
| Severe and extremely severe (n=38) | 12 (31.6)                        | 9 (23.7) | 8 (21.1)    |
| Extremely severe (n=11)            | 3 (27.3)                         | 4 (36.4) | 2 (18.2)    |

Table 3: Number and percentage of participants according to the severity of both mental illnesses, their access to health services and modes of treatment.

#### university and the NGOs.

Our results revealed a 70.0% treatment gap among study participants. This is in line with the findings of other studies on treatment gap among LMIC, reporting a 70% to 90% treatment gap in these countries [15,19,26]. This minimum treatment gap among LMIC might be attributed to our study samples, that consisted of university and NGO staff, who lived in urban areas of Herat province. This study also shows that 40 (30.0%) cases included in this study used any mental health treatment, including one-fifth who used medication and one-fourth who received counselling and over one-tenth that received both medication and counselling. A study conducted in 2019 among general population of the United States reported that 19.2% of adults had received treatment, including 15.8% who used medication and 9.5% who received counselling [27]. Another study by the US National Alliance on Mental Illnesses (NAMI) reported that 46.2% of adults with mental disorders received treatment. Of participants with severe/extremely severe depression/anxiety, 17 (44.7%) received treatment either in form of medication or counseling [28]. NAMI (2021) reported that of adults with serious mental illnesses in the US, 64.5% received treatment. The significant difference between the rate of treatment in our study and studies reported herein, might be attributed to several factors including, availability, cost of medicine, stigma, family support, cultural barriers, lack of awareness, access to quality mental health services and supportive community behaviors and attitudes [12,19,29,30].

This study found that 61.7% of participants did not have access to mental health services. Accumulating evidence reveal that the access to mental health care in LMIC fluctuates between 10% to 90% [15,21]. The alarmingly high rate of inaccessibility of our participants to initial mental health services in an urban setting adds to this evidence. Several mental health studies revealed that the need and access to the mental health services varies inversely among different countries, with people at higher need having less access to these services [12,15,26,31].

The findings of this study on the low accessibility of study participants to mental health services, and considerably high treatment gap among educated individuals in Herat province of Afghanistan highlights the need for an urgent intervention to increase the public awareness, enhance accessibility to mental health services and free/inexpensive medication and counselling in this LMIC and traumatized region.

# LIMITATION

The diagnosis of depression and anxiety in this study was based on the Dari version DASS-42 questionnaire. A gold standard confirmed diagnosis of these mental illnesses should be based on structured clinical investigation. Another caveat of this study is the inclusion of a sample not representative of the general population. To understand the magnitude, severity, level of awareness, accessibility and treatment gap in the country, it is recommended to conduct a similar research among general population. Another prominent consideration is the lack of a baseline data on the burden of these mental illnesses, level of awareness, accessibility and treatment gap in Afghanistan in recent years. Therefore, a solid conclusion regarding a significant change in the level of awareness, accessibility and treatment gap could not be envisaged in this study.

# RECOMMENDATION

Considering the findings of this and studies conducted recently on the burden of mental illnesses in Herat province of Afghanistan the following is recommended:

1. Increasing the level of awareness, accessibility and quality of care for general public about mental illnesses.

2. Encouraging public health authorities, policy makers and mental health professionals to develop and implement policies and strategies in delivering accessible and affordable mental health care.

3. Conducting relevant clinical research involving associated factors and consequences of mental illnesses in the community and individual level.

# CONCLUSION

This study revealed the low level of accessibility, huge treatment gap and a considerable discrepancy in the level of awareness and service use among study participants. Results add to the existing literature on very low level of accessibility and treatment gap in LMIC. The inverse relationship between the need and access to mental health and treatment gap warns international community to allocate funds and resources for the betterment of services in traumatized regions.

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The funding source had no role in data acquisition, interpretation, and the decision to publish.

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