# The psychiatric epidemiological studies in Afghanistan: A critical review of literature and future directions

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# INRODUCTION

In the recent decades Afghanistan faced a series of long term disasters deeply affecting the coping mechanisms of the population and the capacity of the health care system to respond to the mental health needs. The effects of 25 years of violence in Afghanistan on the physical and human infrastructure have been enormous. At the height of the crisis the total number of refugees reached 3.7 million with 2 million in Pakistan and 1.5 million in Iran.1 The impact of decades of war and violence is reflected in Afghanistan’s health statistics which are among the poorest in the world. Life expectancy at birth is 43 years 2, the under-5 mortality rate is 257/1000 (fourth highest in the world) and the maternal mortality rate is 1900/100,000 (second highest in the world).3 This article explores how the impact of these disasters is reflected in epidemiological data and discusses how these data need to be valued.

# EPIDEMIOLOGICAL DATA ON THE MENTAL HEALTH STATUS OF THE AFGHAN POPULATION

The few publications from the pre-war period about mental health and mental health care in Afghanistan give the impression that Afghanistan was not very different from any other developing country in the region.4,5 The start of the violence in the late 1970 led to the exile of many mental health professionals. Little is known about the early effects of the war on the mental health status of the Afghans during the Russian occupation and the armed resistance of the *mujahedeen*. In the refugee camps in Pakistan clinicians reported that they saw many patients with anxiety and depressive symptomatology .6,7

A review of studies conducted during the Taliban regime reveals high rates of anxiety and depression amongst women. In a survey of 160 Afghan women in Kabul and Pakistan during the Taliban regime 42% had symptoms diagnostic of posttraumatic stress disorder, 97% had major depression, 86% had severe anxiety. The vast majority (84%) of the women reported that one or more family members were killed during the war.8 (See table 1). A study conducted in 2000 by the Physicians for Human Rights compared the mental health status of women living in Taliban-controlled area versus that in a non-Taliban controlled area. Major depression was far more prevalent among women living in Taliban controlled area (78%) than among women living in a non-Taliban controlled area (28%).9 Even more alarming were the high rates of suicidal ideation (65% in Taliban controlled area versus 18% in the control area) and actual suicidal attempts (16% in the Taliban controlled area and 9% in the non-Taliban controlled area). High rates of depression and anxiety among women are also found in a qualitative study in Taliban controlled villages near Herat in Western Afghanistan. 10

These high rates of psychiatric morbidity may be related to Taliban policies of gender segregation and denial of basic human rights to women. The fall of the Taliban regime, however, has not resulted in a dramatic increase in the mental health status of the population. A nation wide survey conducted in the first year after the US- led invasion found high levels of depression symptoms (male: 59.1 %, female: 73.4%), anxiety symptoms (male 59.3%, female 83.5%) and PTSD (male 32.1 %, female 48,3%). Respondents with physical disabilities had a higher chance of developing psychopathology.11 An in-depth survey in Nangarhar Province conducted in 2003 12 found also found high figures of depression and anxiety, in particular among women, with elevated scores on depression questionnaires in 58.4% of all women and anxiety symptoms in 78.2%, and PTSD symptoms in female 31.9% %). The study found a clear relation between the number of traumatic events and the likelihood of developing psychopathology. A recent study among widows in Kabul reported depression symptoms among 78.6%. 13

# COMPARISON WITH SOME INTERNATIONAL EPIDEMIOLOGICAL DATA

The studies discussed above consistently yield a high prevalence of indicators for depression and anxiety disorders. These estimates are higher than the figures found in a comparative study of populations exposed to collective violence in four developing countries (Algeria, Cambodia, Ethiopia and Gaza).14 This study, using the CIDI, found percentages for depression ranging from 5,2% to 22,7%, for anxiety disorders ranging from 9,6% to 40%, and for PTSD from 15,8% to 37,4%. The lowest figures were found in Ethiopia and the highest in Algeria. The figures of Afghanistan are also high in comparison with other studies using the same instruments.15,16 A systematic review of data from Pakistan found 6 studies with a randomly selected community sample. The overall mean prevalence of anxiety and depression was 45.5% for women (varying from 28.8 - 66%) and 21,7% for men (varying from 10- 33%).17

# Table 1: psychiatric epidemiological data Afghanistan

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Authors | Study type | Study-population | Year of study | Instrument s | Depression symptoms | Anxiety Symptoms | PTSD  symptoms |
| Rasekh et al. (1998) | Cross sectional survey | Women in living in Kabul or recently arrived in Pakistan  (n=160) | 1998  (Taliban) | HSCL-25, DSM-IV  checklist | Female: 97% | Female: 86% | Female: 42% |
| Amowitz et al.  (2003) | Cross sectional survey | Women in Taliban controlled area (Jalalabad) (n= 223) Women in non-Taliban controlled area  (Faizabad) (n= 194) | 2000  (Taliban) | PRIME MD | Taliban controlled area: 78% Non-Taliban controlled  area: 28% | n.a. (not  assessed) | n.a. |
| Lopes Cardozo et al.  (2004) | Multi stage/ cluster  survey | General population (n= 799) | 2002 | HSCL-25, HTQ | Male: 59.1 % Female: 73.4% | Male 59.3%  Female  83.5% | Male 32.1  %  Female 48,3% |
| Scholte et al. (2004) | Multi stage/i cluster  survey | Population based multi cluster sample in Nangarhar Province  (n= 1011) | 2003 | HSCL-25, HTQ | Male: 16.1% Female: 58.4% | Male 21.9%  Female  78.2% | Male 7.5  %  Female 31.9% |
| CARE (2004) | Random sampling survey | Widows in war- affected districts of Kabul attending a  humanitarian assistance programme (n=266) | 2004 | HSCL-25 | Female: 78.6% | n.a. | n.a. |

*CIDI = 'Composite international diagnostic interview', GHQ = General Health Questionnaire, HSCL 25 = Hopkins Symptom Checklist 25, HSCL DEP = Hopkins Symptom Checklist Depression Subscale, HTQ = Harvard Trauma Questionnaire, PRIME MD = a screening instrument for depression in primary care.*

# IDENTIFICATION OF POSSIBLE SOURCES OF BIAS IN THE AFGHAN STUDIES

The high figures among the Afghans in the presented studies could, of course, reflect a high rate of psychiatric morbidity among the Afghan population. As discussed the country faced a long history of violence and social disintegration and it is likely that this had had an effect on the mental health status of its inhabitants.

Several clinicians working in Afghanistan have noted that the reported high figures for trauma related mental disorders, in particular posttraumatic stress disorder, are not corroborated by their own clinical impressions.18,19,20 The Afghan studies presented in this article need to be interpreted with some caution since there are several possible sources for bias:

1. *Respondents might have aggravated their symptoms:* The Afghan studies were performed in extremely resource poor environments. Respondents might have had a tendency to aggravate their symptoms in the expectation that that would increase the likelihood that they would be ‘rewarded’ with materials benefits or assistance by the NGO. In the studies published in JAMA the sampling procedure and the statistical analysis were done carefully and according to international standards, but the possibility of social desirability in the answers is not unlikely. The respondents were informed that their answers would be kept confidential and would not lead to a clinical intervention, but still the survey participants might have had the expectation that they would get some assistance.
2. *The instruments might have tapped into ‘cultural idioms of distress’:* Cultures vary in the way symptoms are expressed. Every society has its own ways of expressing distress. These so called ‘idioms of distress’ are culture bound. An ethnographic study among the Pashtun in Pakistans’ North-West Frontier Province showed that particularly among women the cultural norms encourages women to publicly express sorrow and grief though story telling and lamenting (*cham-khadi*).21
3. *The instruments were not clinically validated:* The Afghanistan research teams have made considerable efforts to provide their interviewers with well translated and field tested versions of the questionnaires. But the use of screening questionnaires like the HSCL-**25** and HTQ, which are self reporting scales administered by lay interviewers could at best lead to a ‘probable diagnosis’. The use of psychiatric instruments in a setting for which they were not developed can lead to outcomes which do not reflect clinical reality. In a comment on the Afghanistan studies concerns have been raised about the assessment instruments used and whether generalizations about clinical disorders and specific medical treatment can be made.22 In contrast to a self reporting instrument of a few dozen multiple choice questions a clinical psychiatric diagnosis judges the nature and severity of the reported symptoms and organized the symptoms into meaningful schemata.

# TOWARDS A MENTAL HEALTH RESEARCH AGENDA FOR AFGHANISTAN

Epidemiological data can be a great help for planning services in the mental health sector23,24. The issues discussed in this article make clear that additional research is needed to provide mental health care providers and health policy makers with information about essential aspects of the mental health needs of the Afghan population. In particular the following research efforts would highly contribute to our understanding:

1. *Qualitative studies:* The high level of psychopathology and the interplay between culture and disorders make it important to balance the outcomes of quantitative research with qualitative data. Medical anthropological studies could lead to a contextualization of available quantitative data and give insights in symptom presentation, pathways of care and barriers to effective care. The use of ethnographic methods is recently advocated as a useful and efficient tool to design mental health interventions that are acceptable to local populations in non-western cultures.**25,26,27** For several countries near Afghanistan like Pakistan, Iran and India at least some qualitative data about mental health issues are available.28,29,30 For Afghanistan such information is not yet in existence.
2. *Clinical and cultural validation studies:* For large scale epidemiological research it is often not feasible to use clinician administered instruments leading to a clinical psychiatric diagnosis. An alternative could be to use structured clinical instruments that can be administered by lay persons such as the CIDI. Another approach is to conduct a clinical validation study prior to the research. This is a difficult process in which one compares the outcomes of the questionnaires with an external criterion, the ‘golden standard’, in most cases a diagnosis by an independent clinician trained in the use of a semi-structured diagnostic instrument with sufficient interrater-reliablity.31 Such studies could lead to new cut off points for existing instruments or to new variants of research instruments with a better specificity and a sensitivity. Another way of making the diagnosis of lay administered questionnaires more valid is to add additional criteria such as an external judgment of ‘clinical significance of symptoms’ or the rate of social disability caused by the disease (for example using an instrument such as the WHO developed DAS-II.32
3. *Intervention studies:* Studies evaluating the effect of mental health interventions are rarely conducted or published. The need for such studies is obvious, since we cannot assume that what works in western cultural settings will also work in the context of a low income country with a non-western culture.33 Pioneering studies in Pakistan demonstrated the feasibility of conducting effectiveness studies in low income countries.34,35

# CONCLUSION

In recent years the first psychiatric epidemiological studies about Afghanistan have appeared in the literature. The studies indicate a high prevalence of mental problems among the population, in particular among women. The interpretation of the findings is subject to debate. Additional studies on specific topics would enrich the value of standard epidemiological studies, and would greatly contribute to the development of mental health policy in Afghanistan.

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