

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

Peter Ventevogel

## INTRODUCTION

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.<sup>1</sup> 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<sup>2</sup>, 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).<sup>3</sup> 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.<sup>4,5</sup> 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.<sup>6,7</sup>

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.<sup>8</sup> (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%).<sup>9</sup> 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.<sup>10</sup>

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.<sup>11</sup> An in-depth survey in Nangarhar Province conducted in 2003<sup>12</sup> 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%.<sup>13</sup>

## 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).<sup>14</sup> 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.<sup>15,16</sup> 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%).<sup>17</sup>

**Table 1: psychiatric epidemiological data Afghanistan**

Authors	Study type	Study-population	Year of study	Instruments	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.<sup>18,19,20</sup> 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 through story telling and lamenting (*cham-khadi*).<sup>21</sup>

- 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-<sup>25</sup> 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.<sup>22</sup> 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 sector<sup>23,24</sup>. 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.<sup>25,26,27</sup> For several countries near Afghanistan like Pakistan, Iran and India at least some qualitative data about mental health issues are available.<sup>28,29,30</sup> 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-reliability.<sup>31</sup> 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).<sup>32</sup>
- 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.<sup>33</sup> Pioneering studies in Pakistan demonstrated the feasibility of conducting effectiveness studies in low income countries.<sup>34,35</sup>

### **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.

### **REFERENCES**

- 1) CESR. Key Human Vulnerabilities. Afghanistan Facts\_sheet 3. New York: Centre for Economic & Social Rights 2001.
- 2) World Bank. World Development Report. Making services work for poor people. Washington, World Bank, 2004.
- 3) UNICEF. State of the World's Children 2004. New York, UNICEF, 2004.
- 4) Gobar AH. Suicide in Afghanistan. British Journal of Psychiatry 1970; 116: 493-6.
- 5) Waziri R. Symptomatology of depressive illness in Afghanistan. American Journal of Psychiatry 1973; 130: 213-7.
- 6) Mufti KA. Psychiatric Problems in Afghan Refugees. Bulletin of the Royal College of Psychiatry 1986; 10:6.
- 7) Dadfar A. The Afghans: bearing the scars of a forgotten war. In: AJ Marsella et al.(eds.) Amidst peril and pain. The mental health and well being of the world's refugees. Washington: American Psychological Association, 1994:125-39.

- 8) Rasekh Z, Bauer HM, Manos MM, Iacopino V. Women's health and human rights in Afghanistan. *JAMA* 1998;280:449-55.
- 9) Amowitz LL, Heisler M, Iacopino V (2003). A population-based assessment of women's mental health and attitudes toward women's human rights in Afghanistan. *Journal of Women's Health* 2003; 12:577-87.
- 10) De Jong E. Mental Health Assessment Ghurian and Zendah Jan districts, Herat Province Afghanistan. Amsterdam/Kabul, Medecins sans Frontieres Holland, 1999.
- 11) Lopes Cardozo B, Bilukha OO, Crawford CA, Shaikh I, Wolfe MI, Gerber ML, Anderson M. Mental health, social functioning, and disability in postwar Afghanistan. *JAMA* 2004; 292:575-84.
- 12) Scholte, W.F., Olf, M. Ventevogel, P., de Vries, G.J., Jansveld, E., Lopes Cardozo, B., Gotway, C. (2004). Mental health problems following war and repression in Eastern Afghanistan. *JAMA* 2004; 292:585-93.
- 13) CARE. A survey among widows attending a humanitarian assistance programme. Kabul, CARE International/IRC 2004.
- 14) De Jong JTVM, Komproe IH, Van Ommeren M. Common mental disorders in postconflict settings. *The Lancet* 2003 361, 2128-30.
- 15) Lopes Cardozo B, Talley L, Burton A, Crawford C. Karenni refugees living in Thai-Burmese border camps: traumatic experiences, mental health outcomes, and social functioning. *Soc Sci Med.* 2004; 58:2637-44.
- 16) Bolton P, Neugebauer R, Ndogoni L. Prevalence of depression in rural Rwanda based on symptom and functional criteria. *J Nerv Ment Dis.* 2002;190:631-7.
- 17) Mirza I, Jenkins R. Risk factors, and treatment of anxiety and depressive disorders in Pakistan: systematic review. *BMJ.com*; 328:3 april 2004.
- 18) Gustavson N. Mental Health Programs in Afghanistan. International Medical Corps, unpublished report, 2004
- 19) Omidian P. Personal communication. Dec 15<sup>th</sup> 2004.
- 20) Ventevogel, P. Kortmann, F. (2004b). Mental health care in primary health care: experiences from Eastern Afghanistan. *Developing Mental Health*, 2, 5-8.
- 21) Bolton P, Betancourt TS. Mental health in post war Afghanistan. *JAMA* 2004; 292: 626-8.
- 22) Grima B. The performance of emotion among Pakhtun women. Karachi/London, Oxford University Press, 1993.
- 23) Mubasshar MH. Epidemiology of mental disorder in developing countries. In: Tantam D, Appleby L, Duncan A (eds.). *Psychiatry for the developing world*. London, Gaskell, 1996: 3-9.
- 24) De Jong JTVM, Komproe IH. Closing the gap between psychiatric epidemiology and mental health in post-conflict situations. *Lancet* 2002; 359:1793-4.
- 25) De Jong JTVM, Van Ommeren M. Toward a culturally informed epidemiology: combining qualitative and quantitative research in transcultural contexts. *Transcultural Psychiatry* 2002;39:422-33.
- 26) Bolton P, Tang AM. Using ethnographic methods in the selection of post-disaster, mental health interventions. *Prehospital Disaster Med.* 2004; 19:97-101.
- 27) Van de Put W. Addressing mental health in Afghanistan. *Lancet* 2002; 360:2-3 (Supplement December).
- 28) Good B, DelVecchio Good M-J, Moradi R. The interpretation of Iranian depressive illness and dysphoric affect. In: Kleinman A, Good B (eds.). *Culture and Depression*. Berkeley, University of California Press, 1985:369-428.
- 29) Rabbani F. Views about women's mental health: study in a squatter settlement of Karachi. *J Pak Med Assoc.* 1999; 49:139-42.
- 30) Rodrigues M, Patel V, Jaswal S, de Souza N. Listening to mothers: qualitative studies on motherhood and depression from Goa, India. *Soc Sci Med.* 2003;57:1797-806.
- 31) Van Ommeren M. Validity issues in transcultural epidemiology. *British Journal of Psychiatry* 2003; 182:376-8.
- 32) WHO. Disability Assessment Schedule II. Training manual: a guide to administration. Geneva, WHO, 2000.
- 33) Patel V, Araya R, Bolton V. Treating depression in the developing world. *Tropical Medicine and International Health* 2004;9:539-41
- 34) Chisholm D, Sekar K, Kumar KK, Saeed K, James S, Mubbashar M, et al. Integration of mental health into primary care. Demonstration cost-outcome study in India and Pakistan. *British Journal of Psychiatry* 2000, 176, 581-8.
- 35) James S, Chisholm D, Murthy RS, Kumar KK, Sekar K, Saeed K, et al. Demand for, access to and use of community mental health care: lessons from a demonstration project in India and Pakistan. *Int J Soc Psychiatry* 2002; 48:163-76.