□報告□

Depression in a post conflict setting：
A study from a highly affected area by the Nepali Civil War

GYAWALI Bijay*

Abstract

[Background and objectives] Mental health is a state of well being in which every individual realizes his or her own potential, can work productively and fruitfully, and is able to contribute to his or her community. Mental illness often attracts a lower priority than physical illness in post conflict and low and middle-income societies but the two are inextricably linked. Depression is a common condition worldwide and particularly in post conflict settings. The purpose of this research was to clarify the situation of mental illness of people in post conflect settings.

[Methods] The symptoms among participants in Nepal were studied using the Beck Depression Inventory-II (BDI-II), one of the most widely used instruments for measuring the severity of depression.

[Results] Over half of participants met symptom criteria for depression, and among them 29 percent are suffering from severe kind of depression. The three high mean recorded items, were loss of pleasure, sadness, crying and tiredness or fatigue.

[Conclusion] This study provides important evidence on the prevalence of post conflicts depression in Nepal. Further research is required to explore the findings and appropriate responses.

Keywords： Post Conflict Depression, Mental Health, BDI-II, Nepal

内乱後にみられたうつ病：ネパールの激戦地域における調査

ゲワリ　ビゼイ*

抄　録

［背景と目的］メンタルヘルスにおけるウェルビーイングとは，人々が自分の可能性を理解し，社会に貢献出来る状態のことである．精神的な病は，内乱後の社会や低・中の所得社会においては，身体的な病よりしばしば優先順位が低くみなされる．しかし，両者は複雑に関連するものである．抑うつは，全世界のどこでも認められるものであるが，紛争後の社会においてはことさら著明である．本研究では，紛争後の地域住民のうつ状態の状況を明らかにすることを目的とした．

［方法］ネパールでの対象者について，うつ状態測定のために広く利用されているベックうつ病調査紙（BDI-II）を用いて，調査を実施した．

［結果］対象者の半数以上がうつ病の基準にあてはまった．その中の 29%が重度（severe）のうつ病レベルであった．高い平均値を記録した 3 つには，喜びの喪失，悲しみ，泣きたい，疲労感の各項目が該当した．

［結論］本研究は，ネパールの内乱後における抑うつの波及に対して重要な情報を提供するものとなった．更なる知見及び調査回答を得るために，今後も研究調査が必要である．

キーワード：内乱後のうつ病，メンタルヘルス，BDI-II，ネパール

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*国際医療福祉大学大学院　医療福祉学研究科　保健医療学専攻　医療福祉学分野　博士課程
Division of Health and Welfare, Doctoral Program in Health Sciences, Graduate School of Health and Welfare Science, International University of Health and Welfare
E-mail：bijay1019@gmail.com

I. Introduction

Depression is a common mental disorder that presents with depressed mood, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, low energy, and poor concentration[1]. These problems can become chronic or recurrent and lead to substantial impairments in an individual's ability to take care of his or her everyday responsibilities. Naturally untreated depression often results in neglect of personal and professional responsibilities and significantly impacts daily life of a person. It also negatively affects the lives of families. Severe depression may lead to suicide.

Sometimes context determines the degree of depression in the society. In this connection, depression has profound and often high impacts on the health and functioning of individuals and communities across post conflict societies. Civil wars around the world since 1945 have killed approximately 20 million people and displaced at least 67 million[2]. Naturally, these wars and armed conflicts have left high degree of depression in post conflict settings. Studies from post conflict South Sudan found rates of depression as high as 50%[3]. A study of South Sudanese ex-combatants found that 15% reported they had thoughts of self-harm and wishing for death [3]. In the Nepali context, armed conflict (labeled People's war by the rebellions / Maoists) was occurred between government forces and Maoist fighters that lasted for a decade from 1996 to 2006. Communist Party of Nepal (Maoist) declared war against the government on 13 February 1996, with the demand of downfall of monarchy and establish the "Federal Republic of Nepal." It formally ended with the comprehensive peace accord signed by the Maoists leaders and the then Prime minister on 21 November 2006[4].

The decade long armed conflict causing more than 13,000 deaths, thousands mutilated, displaced, orphaned, widowed and billions of Rupees worth of destruction of the infrastructure, and obstruction to socioeconomic development, has mostly affected the poor and vulnerable groups including women, children and elderly people (Table 1) [4]. Those youth who had been left out and/or pushed out of school system have been in the center of the vicious cycle of the cause and effect relationship of the armed conflict. Obviously, community in general and particularly the most affected population mentioned in this paragraph has been suffering from depression in the post conflict settings. This paper discusses further on level of depression in post conflict period with the case study of highly armed conflict affected area from Nepal.

The major objective of this study was to measure level of depression in the population of post conflict setting of Bardiya district of Nepal.

Table 1. Causalities of the Nepali civil war

Condition	Number by Maoist	Number by state	Total
killed	4930	8339	13227
Children killed under 17 years	172	175	347
Disappeared		1147	1147

Source : Informal sector service center (INSEC) 2006

Table 2. Causalities of the Nepali civil war in Bardiya

Killed	Disappeared	Displace	Wounded	Disabled	Tortured
396	285	565	544	71	176

Source：Bardiya District Administration Office

II. Methods

1) Study area

For this research, the Bardiya district of Nepal, which was one of the most affected areas in the decade long armed conflict, was selected. During the conflict 398 persons lost their precious lives and many causalities occurred (Table 2) [5].

Bardiya has an area of 2025 sq. km. of which 17.12 % is forest area. Only 32.89 % of the land area of the district is cultivable. Similarly, about 6.58 % of the area of the district is covered by the rivers, their tributaries and lakes, while 0.43% of the land area is covered by grass-land and uncultivated land. There has been the largest wild life conservation area in Nepal called Bardiya National Park.

Population wise, the total population of the district is 4,75,766 with the average family number six per family. The district is comprised of 31 Village Development Committees (VDCs) and one municipality. (VDCs and municipalities are the lowest political division of Nepal.) The total literacy rate in the district is 39.1%. Male literacy rate is 51.6% while female literacy rate is 26.1%[6]. There are 400 government schools and 65 private schools. The district has one hospital and 33 health posts. Poverty is common in the district.

2) Participants

For the study purpose 75 participants were interviewed in their own residents within the time frame of March 25th to April 25th 2012. The interview process had been the part of field works to observe the situation in different parts of the district too. For the interview purpose the diverse participants were taken into consideration in respect to demography, age, gender and occupation. They were interviewed in their own local language of Bardiya (Tharu)(Table 3).

Basic criteria for selection of participants were：

1) Age over 15
2) Local residence of Bardiya and have experience of armed conflict in Nepal (1996-2006)

3) Materials

The prevalence of depression symptoms among participants was studied using the Beck Depression Inventory-II (BDI II). This Inventory, created by Dr. Aaron Beck, is a 21-question multiple-choice self-report questionnaire, and is one of the most widely used instruments for measuring the severity of depression. Its development marked a shift among health care professionals, who had until then viewed depression from a psychodynamic perspective, instead of being rooted in the patient's ownscores of 0-9, 10-18,19-29,30-63 have been classified as having minimal, mild, moderate, thoughts. BDI II has a total score of 63 and and severe depression respectively. Most of questionnaire of research was filled in their own home, as field visit so that all participants were eligible for the study. Some participants

had very tragic flash back of armed conflict and thus they were taken 30 min to 1-hour time for answering questions but other participants completed it within 15 minutes. Analysis of the data was done using excel program.Before the start of research interview, the basic ethical standard for researcher was explained to all the participants and the participants' informed consent for participation was obtained.

Table 3. Demographic distribution of participants

Participants information	Male	Female
Sex	47	28
Age group		
10+	6	8
20+	25	9
30+	9	8
40+	3	2
50+	4	1
Education		
Literate	39	14
Illiterate	8	14
Occupation		
Student	13	8
Farmer	22	19
Government job	7	0
Non government job	1	1
Other	4	0

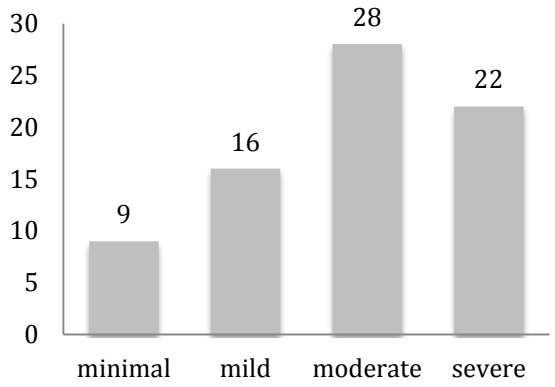

Figure 1. BDI categories of the participants

III. Results

Out of total 75 interviewees, 28 were female and rests 47 were male. Among them 22 had not been to any formal school education. The mean age group of them was 28.45 with a standard deviation (SD) 9.59. Forty-one interviewees were farmers by occupation. The mean depression score was 24.2 with 8.6 (SD).

Study shows that twenty-nine percent (n=22) of the total interviewees were suffering from significant severe depression level. Similarly, 38%(n=28) had moderate level, 21%(n=16) had mild and 12%(n=9) had minimal level of depression. Having this data it was clear that more than half of participants had clear indication of depression symptoms. Among the 28 female interviewees, forty six Percent (n=13) were suffering from moderate and thirty-six (n=10) were suffering from severe depression. It means eighty two percent of female interviewees were suffering from some level of

Table 4 . BDI categories of the participants by sex

Participants	Mild	Minimum	Moderate	Severe
Male	6	14	15	12
Female	3	2	13	10
Total	9	16	28	22

depression. Similarly thirty-two percent (n=15) of male interviewees were found suffering from moderate type of depression and twenty five percent (n=12) of them were suffering from severe depression. This data makes clear that sum of female depression rate had been twenty five percent higher than the male depression rate (Table 4). Analysis of each item of BDI II also showed some large variation between some items mean. The Three high mean recorded items were loss of pleasure, sadness, crying and tiredness or fatigue.

These three high rate items in fact were the basic symptoms or DSM-IV criteria for depression, which was mentioned earlier (Table 5). Please refer to Table 6 for further details.

IV. Discussion

This study was conducted on mental health in post-conflict psychological condition of Nepal, and the study got succeed to collect evidences on the same. The sum of all BDI item scores indicates the severity of depression. For the general population, a score of 21 or over represents depression. For people who have been clinically diagnosed, scores from 0 to 9 represent minimal depressive symptoms, scores of 10 to 16 indicate mild depression, scores of 17 to 29 indicate moderate depression, and scores of 30 to 63 indicate severe depression. This research shows half of interviewees from conflicted affected area score above 21. It indicates they had some level of depression. This

Table 5. DSM-IV criteria for depression

DSM-IV (APA, 1994) defines depression by nine criteria, where at least five need to present for most of the days, nearly every day for at least two weeks. In addition, the symptoms need to cause clinically significant distress or impairment in social or occupational functioning, and should not be better explained by a general medical condition, by the physiological effects of a substance or by bereavement.

The DSM criteria for depression

At least one of these:

1. Persistent depressed mood or feeling of sadness
2. Markedly diminished interest or pleasure in nearly all activities

Additional criteria:

3. Change in weight or appetite, either decreased or increased.
4. Insomnia or hyper-somnia
5. Psychomotor retardation or agitation
6. Fatigue or loss of energy
7. Difficulty concentrating or indecisiveness
8. Guilt or low self-esteem
9. Recurrent thoughts of death or suicide

Rating of severity is based upon number and severity of the criteria symptoms, as well as the degree of functional disability and distress.

The ICD-10 (WHO, 1992) has a similar description of depression, but does not state an exact duration of symptoms. There is more emphasis upon the clinical description, and less at the exact number of symptoms. However, less numbers of symptoms (only 2-3) are required for the diagnosis of milder depression, but as for the DSM-IV, the severity and number of symptoms decide the classification into mild, moderate and major depression.

Table 6. BDI categories of the each item

No.	Items	Mean	SD
1	Sadness	1.9	0.8
2	Pessimism	0.9	0.8
3	Past failure	1.4	0.8
4	Loss of pleasure	1.7	0.8
5	Guilty feeling	0.1	0.4
6	Punishment feeling	0.3	0.5
7	Self dislike	1.3	0.7
8	Self criticalness	1.1	0.7
9	Suicidal thoughts	0.7	0.8
10	Crying	1.5	0.8
11	Agitation	1.3	0.7
12	Loss of interest	1.3	0.9
13	Indecisiveness	0.8	0.7
14	Worthlessness	0.8	0.7
15	Loss of energy	1.0	0.8
16	Changes in sleeping pattern	1.4	0.8
17	Irritability	1.3	0.8
18	Change in appetite	1.2	0.6
19	Concentration difficulty	1.4	0.8
20	Tiredness or fatigue	1.5	0.7
21	Loss of interest in sex	1.4	0.9
Total		24.2	8.6

Note. N=75

research also made clear that female population has been most risk population comparing to the males. Among the 28 female participants 23 female participants had some level of depression. This result clearly indicates that further research is needed in area of female to know the clear situation of conflicts affected female in Nepal.　It also indicated a considerable number of adults were suffering from depression.

Talking about the treatment, there has been low level of initiatives for the mental health in Nepal. According to world health organization, only 0.8% of the total healthcare budget of Nepal is allocated for mental health6). There is only one public psychiatry hospital and it is located in Kathmandu, the capital city. The data says that the number one cause of death among women aged 15-50 years old was suicide, which is closely related to depression. The number of mental health care professionals in Nepal is low. According to a report by the World Health Organization Assessment Instrument for Mental Health Systems (WHO-AIMS 2006), the breakdown according to profession is:

32 psychiatrists
(0.129 per 100,000 population)
6 psychologists
(0.024 per 100,000 population)
16 other medical doctors, unspecialized in psychiatry
(0.0645 per 100,000population),
68 nurses (0.274 per 100,000 population),
No social workers,　No occupational therapists[7].

More than six million Nepalese - 20 percent of the population-had symptoms of mental health disease in 2010, according to the government. This research in post conflict area shows 50 percent of participant had symptoms of depression in 2012. It estimated that mental health issues are different on the location. It indicates the issue remains neglected and underfunded in conflict area. This research also supports evidences of previously done research in Nepal. Research shows the importance of psychological rehabilitation of the people in post conflict setting in Nepal.

V. Conclusions

This study has come up with important evidences on the prevalence of post conflict depression in Bardiya district in Nepal. It is the fact that the prevalence of depression is in alarming state and there should be some kind of intervention to response the problem. However, further research is required to explore more.

There have been evidences on the effectiveness of mental health interventions in poverty-stricken and conflict-affected settings. But the limited resources are being allocated for the mental health services in low-income countries, and the needs are particularly acute in countries emerging from conflict such as Nepal.

VI. Limitation of the study

Nepal has been witnessing different kind and nature of arm conflict in the national and regional level. Maoist conflict and Terai conflict are the examples of national and regional level conflicts of the recent past. However, this study includes only the effect of Maoist armed conflict.

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