Mental Health and Psychosocial Problems after Eighteen Months from the Earthquake in Nepal

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Nepal earthquake 2015

April 25: 7.8 magnitude
May 12: 7.3 magnitude (and 100+ aftershocks)
- 8,900 Killed
- 22,309 Injured
- 450,000+ Displaced
- 8.5 million Affected
- 2.8 million homeless

[Kane et. al., 2017; Sherchan et., al., 2017]
## Impact of emergencies in mental health

<table>
<thead>
<tr>
<th></th>
<th>BEFORE DISASTER: 12-month prevalence</th>
<th>AFTER DISASTER: 12-month prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Severe disorder</strong></td>
<td>2-3%</td>
<td>3-4%</td>
</tr>
<tr>
<td>(e.g., psychosis, severe depression, severely)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mild or moderate mental disorder</strong></td>
<td>10%</td>
<td>20% (reduces to 15% with natural recovery)</td>
</tr>
<tr>
<td>(e.g., mild and moderate forms of diagnostic depression and anxiety disorders)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Moderate or severe psychological / social distress</strong></td>
<td>No estimate</td>
<td>Large percentage (reduces to unknown extent due to natural recovery)</td>
</tr>
<tr>
<td>(no diagnosable disorder)</td>
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</tbody>
</table>

Source: WHO, 2005
Mental health problem in Nepal

• No nationally representative data on burden of mental health problems.

• Small scale studies show that one out of four people (25%) in Nepal have mental health problem [Luitel et. al., 2013; Tol et. al., 2010; Kohrt et. al., 2012].

• A study conducted four month after the earthquake showed that more than one third adults were suffering at least one type of mental health and psychosocial problems (Depression 34.3%, Anxiety 33.8%, PTSD 5.2%, Suicide Ideation 10.9% and Alcohol use problems 20.4%) [Kane et. al., 2017].
Objectives

• To assess the prevalence rates of mental health and psychosocial (MHPS) problems after 18 months of earthquakes
Methods

**Study Area:** Nuwakot, Rasuwa & Makwanpur

**Study design:** Cross-sectional Survey

**Sample size:** 510

[Nuwakot-169, Rasuwa-171 and Makwanpur-170]

**Sampling procedure:** Multi-stage sampling
Tools used

- Hopkins Symptom Checklist (HSCL-25)
- PTSD Checklist-Civilian (PCL-C)
- Alcohol use disorder identification test (AUDIT)
- Suicidal ideation screening
Overall MHPS Problems

- Depression symptoms: 39.4
- Anxiety symptoms: 38.4
- PTSD symptoms: 16.3
- Alcohol Use Problems: 25.5
- Suicidal thoughts: 21.7
MHPS problems by District

Depression symptoms
- Rasuwa: 51.1
- Nuwakot: 44.4
- Makwanpur: 28.7

Anxiety symptoms
- Rasuwa: 51.9
- Nuwakot: 33.9
- Makwanpur: 40.3

PTSD symptoms
- Rasuwa: 24.4
- Nuwakot: 19.7
- Makwanpur: 27.8

Alcohol use problems
- Rasuwa: 23.4
- Nuwakot: 21.1
- Makwanpur: 27.8

Suicidal thoughts
- Rasuwa: 11.5
- Nuwakot: 9.5
- Makwanpur: 27.8
MHPS problems by Gender

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression symptoms</td>
<td>43.5</td>
<td>35</td>
</tr>
<tr>
<td>Anxiety symptoms</td>
<td>43.2</td>
<td>33.1</td>
</tr>
<tr>
<td>PTSD symptoms</td>
<td>21.3</td>
<td>10.8</td>
</tr>
<tr>
<td>Alcohol use problems</td>
<td>32.4</td>
<td>19.2</td>
</tr>
<tr>
<td>Suicidal thoughts</td>
<td>27.4</td>
<td>15.4</td>
</tr>
</tbody>
</table>
MHPS problems by Age group

- Depression symptoms
- Anxiety symptoms
- PTSD symptoms
- Alcohol use problems
- Suicidal thoughts

16-24 yrs | 25-59 yrs | 60 and above
---|---|---
Depression symptoms | 33 | 34.7 | 60.2
Anxiety symptoms | 27.8 | 32.7 | 66.1
PTSD symptoms | 9 | 14.2 | 30
Alcohol use problems | 17 | 19.8 | 30.2
Suicidal thoughts | 16.6 | 19.7 | 32.7
MHPS problems by Marital Status

<table>
<thead>
<tr>
<th></th>
<th>Single</th>
<th>Married</th>
<th>Widowed/divorced/separated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression symptoms</td>
<td>48.5</td>
<td>37.9</td>
<td>40.1</td>
</tr>
<tr>
<td>Anxiety symptoms</td>
<td>33.6</td>
<td>37.1</td>
<td></td>
</tr>
<tr>
<td>PTSD symptoms</td>
<td>9.8</td>
<td>15.2</td>
<td>27.8</td>
</tr>
<tr>
<td>Alcohol Use Problems</td>
<td>21.6</td>
<td>28.6</td>
<td>11.9</td>
</tr>
<tr>
<td>Suicidal thoughts</td>
<td>19.7</td>
<td>21.1</td>
<td>26</td>
</tr>
</tbody>
</table>
MHPS problems by Caste/Ethnicity

*Other Janjati indicates Gurung, Magar, Rai, Newar, Chepang and Tharu.
Results from multivariate logistic regression model

Females have more problems of Depression, Anxiety and PTSD.

- Depression: [AOR = 2.54, 95% CI = 1.46 to 4.44 (p=0.006)]
- Anxiety: [AOR = 1.96, 95% CI = 1.46 to 2.65 (p=0.001)]
- PTSD: [AOR = 4.27, 95% CI = 2.57 to 7.84 (p=0.001)]

Older people are more at risk for Depression, Anxiety and Alcohol use problem.

- Depression: [AOR = 3.03, 95% CI = 1.13 to 8.07 (p=0.033)]
- Anxiety: [AOR = 4.48, 95% CI = 1.56 to 12.88 (p=0.013)]
- Alcohol use problem: [AOR = 4.21, 95% CI = 1.13 to 15.64 (p=0.036)]

Other Janajati have more problems of Depression, PTSD and Alcohol use.

- Depression: [AOR = 4.24, 95% CI = 2.12 to 8.49 (p=0.002)]
- PTSD: [AOR = 3.71, 95% CI = 1.93 to 7.13 (p=0.003)]
- Alcohol use problem: [AOR = 7.96, 95% CI = 4.15 to 14.04 (p=<0.001)]

*Other Janjati indicates Gurung, Magar, Rai, Newar, Chepang and Tharu.*
Results from multivariate logistic regression model

- Dalit and Tamang Janajati have higher problems of Alcohol use.
  - Dalit: [AOR = 4.62, 95% CI = 1.21 to 17.60 (p=0.031)]
  - Tamang: [AOR = 18.71, 95% CI = 9.16 to 38.22 (p=<0.001)]

- Households having disabled member are more at risk for Depression, Anxiety and PTSD.
  - Depression: [AOR = 5.65, 95% CI = 3.40 to 9.40 (p=<0.001)]
  - Anxiety: [AOR = 2.39, 95% CI = 1.58 to 3.63 (p=0.002)]
  - PTSD: [AOR = 3.14, 95% CI = 1.74 to 5.70 (p=0.003)]

- Residents of Rasuwa District have more problem of Anxiety.
  - [AOR = 1.83, 95% CI = 1.00 to 3.34 (p=0.048)]
Conclusions

• High prevalence rate of mental health problems 18 months after the earthquake.

• High prevalence rate than WHO estimation following a humanitarian emergency (WHO/UNHCR, 2012) but comparable to other studies conducted in post earthquake settings outside Nepal.

• Females, older age, Janajati group and households having disabled member were found to be more at risk.
Recommendations

• Immediate mental health and psychosocial support [MHPSS] services for high risk group of MHPS problems.

• Integration of MHPSS services into existing government health care delivery and protection system.

• Collective efforts from government and other development partners for provision of basic needs (eg. shelter, livelihood) along with MHPS services.

• Establishment of functional mental health mechanism in federal system.
For further questions/information:

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