Mental Health Integrated Disaster Preparedness for Earthquake-affected Communities in Nepal

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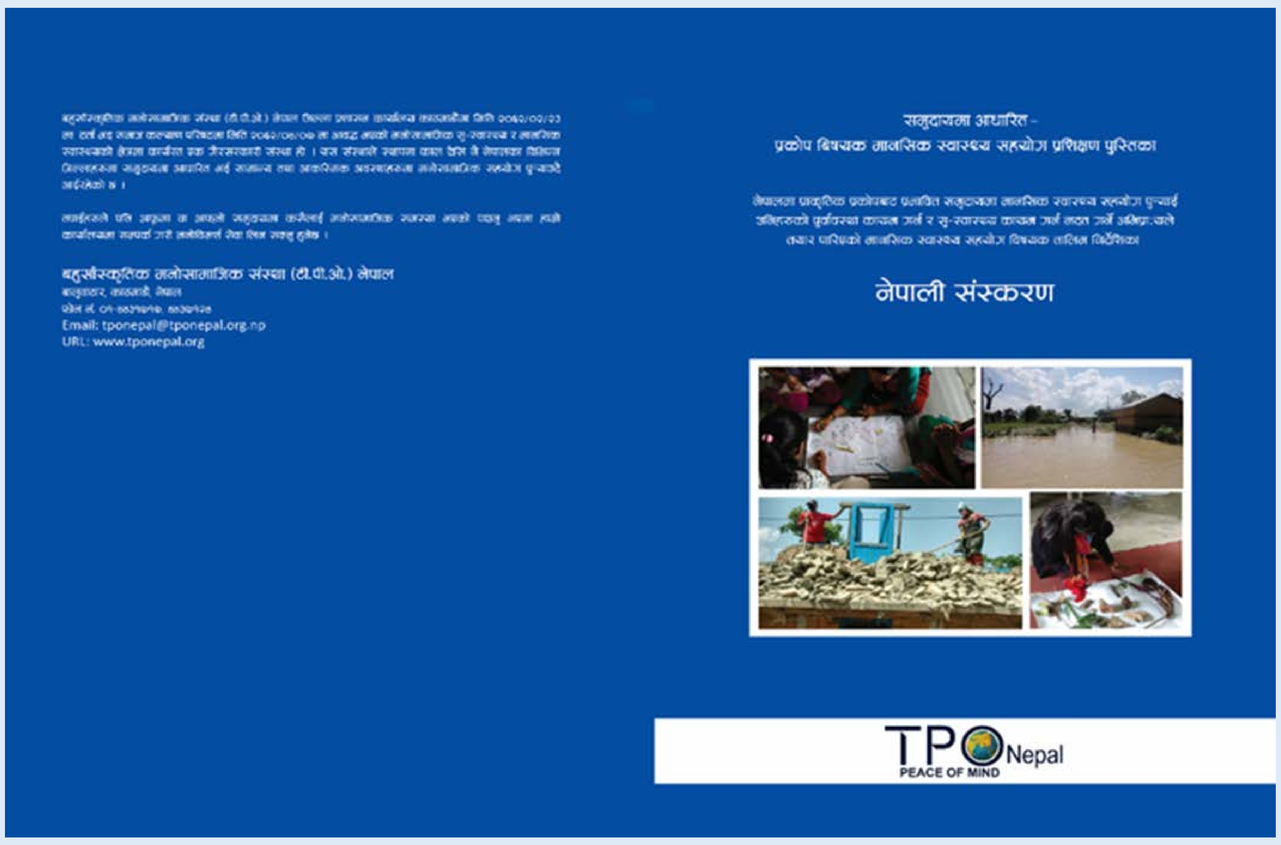
BACKGROUND

- Given the high frequency of natural hazards in Nepal, preparedness is crucial. However, evidence suggests that many people exposed to prior disasters do not engage in risk reduction even when they receive training and have resources.
- Mental health symptoms (including those associated with prior disaster exposure) may influence motivation to engage in preparedness. Perceived preparedness for future disasters may in turn influence mental health.
- We developed and tested a 3-day hybrid mental health and disaster preparedness intervention for communities affected by the 2015 earthquakes in Nepal.

OBJECTIVES

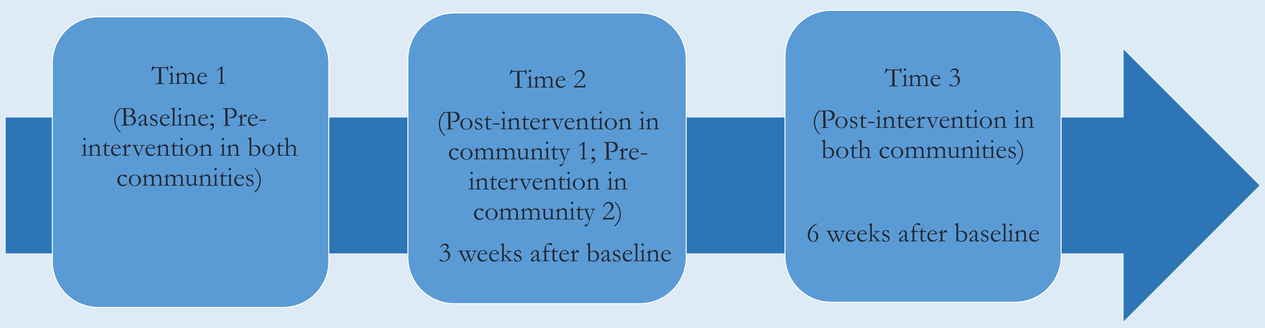
The 3-day group intervention will:

- Increase disaster preparedness
- Reduce distress (depression, PTSD)
- Improve social cohesion



METHODS

- Stepped wedge design comparing two communities in Bhaktapur district, matched on demographic/exposure variables.
- 240 people received the 3-day intervention (120 in each community)
- Interviews conducted at 3 time points:



RESULTS

Results indicate that intervention participation increased disaster preparedness, decreased depression and PTSD symptoms, and increased social cohesion. Effects persisted at time 3 (6 weeks post-intervention).

Variable	Unstandardized intervention coefficient (standard error)	Effect size (Cohen's D)	Within subject contrast T1 to T2 for intervention group Estimate (SE)	Within subject contrast T1 to T3 for intervention group Estimate (SE)
Disaster preparedness	0.75*** (0.18)	0.49	1.19*** (0.15)	1.57*** (0.15)
Depression (PHQ)	-0.26*** (0.06)	0.49	-0.38*** (0.05)	-0.35*** (0.05)
PTSD (PCL-C)	-0.27*** (0.06)	0.39	-0.33*** (0.05)	-0.19*** (0.05)
Social cohesion	0.80** (0.28)	0.40	0.83*** (0.24)	0.54* (0.24)

Additional results include a positive impact of the intervention on coping and help-seeking related to disaster preparedness and to mental health..

***p<.000, **p<.01, *p<.05

CONCLUSION

- **Results support integration of mental health content in disaster preparedness curriculum. Related research with flood-affected communities in Kailali district, Nepal, and Port-au-Prince, Haiti using RCT designs produced similar results.**
- **This culturally-adapted cost-effective intervention can be implemented by lay mental health workers, with curriculum manuals available in Nepali and English.**

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