Risk factors for mental health in emergencies and challenges for implementing intervention

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Radiation emergencies vs. other mass trauma

- As new MHPSS framework notes, radiation emergencies have unique features.
- Considerable uncertainty about short and long-term health effects, including unexplained symptoms.
- However, do share commonalities with other emergencies.
- For most trauma events we can identify ‘Emergency cycle’.
- This includes not only immediate responses to an event, but prior preparedness, and the longer term recovery.
- I will briefly consider some features of preparedness, emergency and recovery stages.

Examining the cycle: The before.. Preparedness.

- Nuclear plants (e.g. Fukushima): physical environments/ risks but also social/psychological environments. Severe mental illness high in Miyagi Prefecture in months before 2011 Earthquake. Many facilities in area for elderly and disabled. Sensitive facilities often placed in remote areas with underlying challenges.
- Mapping local community therefore important. Includes:
  - Who are the vulnerable (physical, psychological), location, group membership and stigma (e.g. ethnicity)?
  - Local relations with nuclear facility (issues that might decrease, increase trust). [Ideally, wider values of community as ~ risk].
  - Available resources (health services, personnel/responders providing MHPSS)
  - Established community structures (e.g. religious groupings, educational facilities)
  - Media sources used/ likely to be used in emergencies (differs across ages etc?). Additional communication routes (e.g. local news outlets)

During an event: emergency phase

- Immediate situational risks. ‘Bulls eye’: those most in the centre of an emergency most at risk (Nuclear, hurricane, terror attack…)
- However stress to those outside immediate threat via mass media (9/11).
- People at risk. Those who are vulnerable (poorest, less support from others, poorer mental health) risk loss cycles (money, status, healthcare, relationships) (*Conservation Of Resources*).
- Communicating action: Effective (comprehensible), trusted communication vital (e.g Shelter in place? Evacuate?).
- Role of myths, suspicions (‘fake news’). Influenced by resources (those with little money may be motivated to reject potentially costly actions. [Feeds back to preparedness stage…]).

After an event: transition, long-term recovery

- Following mass trauma, most (⅔– ¾) do not suffer severe psychological distress. In Miyagi, c. 8% continuous severe mental illness over 6 years, 8% increased distress over time
- Although no simple resilience process, important factors for recovery include:
  - Economic situation
  - Group status: risk of stigma, may reflect underlying discrimination.
  - Housing. Displaced communities housed together? Isolation? ~ to..
  - Social support from families + friends, wider community. (Can be compromised over time: social support deterioration deterrence model – stressors / tensions undermine support)
  - Routines. Maintenance important across events. Both primary (e.g. sleeping) and secondary (e.g. socialising) + novel (face masks)).

Implications for intervention

- Preparation stage - Vulnerability analysis: know your area, how to reach those most at risk. Not just physical landscape, psychological one too.
- This all part of UNDRR campaign – *no such thing as disasters*. Preparedness involves awareness of both physical and psychological environments.
- Resilience evolves over time; mix of factors. No simple culture, personality effects; result of existing and emerging resources. These physical but also status, social networks…
- Existing communities important, but don't exaggerate impact, very context specific (*WHO risk communication*). Reluctance to help, tensions within communities, leaders rarely representative..

Implications (2)

- Physical provision important post-event. Supported housing (even temporary) can build cohesion.
- Interventions (physical, psychological) involve commitment over time. Risks can cascade, particularly when health and economic support packages end.
- Need for longitudinal research (Fukushima Health Management Survey; unique in quantity and quality of data).

Thank you!

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