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# Mental Health concerns in the aftermath of Disaster :

## *Mass Psychogenic illness*



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# Disaster Taxonomy



- Geophysical or hydro-meteorological
- Slow-onset or fast onset
- Man-made or non-intentional
- Natural or technological
- Low or high impact
- Single episode or **dual disaster**

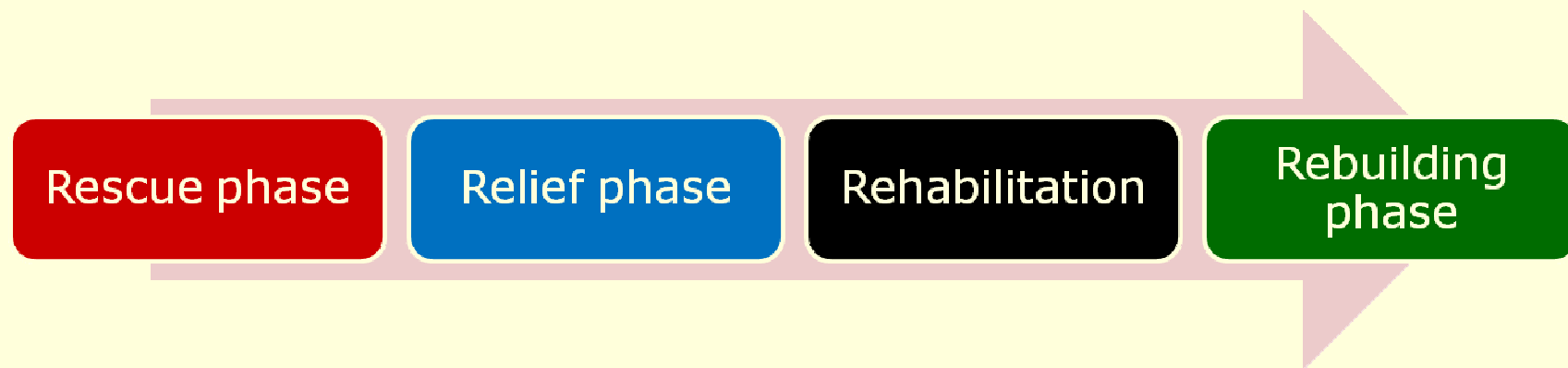




## ...reactions following disasters



- People would develop panic reactions & there would be civil disorders (**chaos over order**)
- People would make use of available resources & exhibit post-traumatic growth (**common identity & shared fate**)
- Disorder & growth would co-exist (**competition & compassion**) in varying degrees, as a function of type & phases of disaster





# The fear...



- Announcement of leakage of radiation-contaminated water into the ocean
- News rekindles public concerns about health dangers
- Threat spreads beyond borders with contradiction in information dissemination
- Major concerns over water & food contamination
- Exodus from locality





# Fear of Radiation Contamination



## Radiation is feared beyond proportions

- “fear of the unknown”
- “uncertainty about the extent of threat”
- “something that cannot be seen or sensed or felt”

## WHO's 20-year review of Chernobyl:

- an exaggerated sense of dangers to health of exposure to radiation
- such a sense did more health damage than radiation





# Stockpiling of Radiation Antidotes: A Case Study



- No proven high level report of radiation in US, Russia & Canada
- WHO clarified that KI protects thyroid only against  $I^{131}$  and is not a radiation antidote
- Both KI and Prussian blue have side effects
- However, bulk buying and hoarding was rampant in Canada & US [social paranoia]
- Manufacturers struggled to meet demands for KI





# Critical Issues of diagnosis



- Post-traumatic stress disorder vs. Panic reactions
- Somatic symptom disorder vs. mass psychogenic illness (**more common**)
  - Classical vs. traditional symptoms
  - Predisposing vs. precipitating factors
  - Overt vs. covert dynamics
  - Contagious vs. non-spreadable nature







# Symptoms...(Mass, W.E. 2005)



- ...that have no plausible organic basis
- ...that are transient & benign
- ...with rapid onset & recovery
- ...that are spread via sight, voice
- presence of extra-ordinary anxiety
- preponderance in women, children







# Psychological Symptoms



- Classical physical symptoms (as in Brazil)
- Anger (assuming misrepresentation of facts), helplessness
- Magical thinking, Collective whispering
- Paranoia, social isolation
- Demoralization, depression
- Shared unconscious thought
- Pseudo-hallucination





# Process involved in Mass Psychogenic illness



- Subconscious threat transmits through a state of **ambiguity & uncertainty**
- Uncertainty & ambiguity inhibit access to “critical sense” [**breakdown of reasoning process**]
- “Breakdown of reasoning” induces the process of affective displacement or **somatization**
- The process of “somatization” increases the **anxiety level** of involved individuals
- The anxiety level transmits through collective whispering with **intervention from authorities**





# Psychological factors



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- Shared unconscious thought processes
  - Fear of environmental toxin
  - Perceived risk & poor personal control
  - Pre-existence of stress & willingness to be 'sick'
  - Lack of trust on authority
  - Believe that everybody is saying so 'it will be right'
  - Interpretation guided with social stereotypes
  - Misattribution of events as part of social constraints





# Pre-conditions for Mass Psychogenic illness



- Environmental conditions that promote mass anxiety
- Message that are transmitted in 'formation'
- Pre-existing stress, lack of faith & hopelessness
- Social traditions that offer alternative explanations
- A triggering episode & media reports
- Contagion spreads in line of sight
- Sections of population who are more vulnerable





# Assessing somatic complaints...



- Assessment of people who remain distressed at around a month after events (**women, children, old**)
- Those who are directly exposed
- Those who have shown behavioral changes
- Those who have pre-existing mental illness
- Those who have resource loss, material & social





# Managing Mass Psychogenic Illness



- Rapid detection of symptoms
- Effective, transparent & timely communication [central information portal]
- Message designing [short & lexically standardized, automated & authentic, without contradiction]
- Warning against collective whispering
- Building Unflinching Trust [based on factual situation]
- Alleviation of undue worries with handouts (genetic harm, cancer)





# Managing Mass Psychogenic Illness



- Stockpiling medicine & protective devices to add psychological value
- Education about social amplification of risk
- Reassurance about natural recovery of risk
- Availability of psychological first aid
- Regular risk assessment & review of social vulnerabilities on a constant basis
- Awareness generation & building collective resilience **as a strategic model of care**







# Plan of action



- Community-based psychosocial guidelines for (covert) panic management
- Intervention procedure for epidemic (psychogenic) illness & long-term follow-up
- Training for care-givers on post-traumatic somatization of vulnerable population
- Longitudinal studies of psychiatric sequelae of radiation exposure



···*enhancing the quality of life of silent sufferers*