

Impact of the Chernobyl Disaster Perceptions on the Reproductive Health of Ukrainian Women

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Background: This study examines perceptions of the Chernobyl nuclear accident and reproductive health decisions among two populations in Ukraine: women who lived in the relatively non-contaminated city of Lviv (Control Group) and women relocated to Lviv from the contamination zone surrounding Chernobyl (Evacuee Group). The association between the women's exposure to the accident and their psychological and physical health also was investigated.

Methods: A survey was administered to the Control Group (n = 69) and the Evacuee Group (n = 28), and included measures of: background and socioeconomic status, knowledge and attitudes of the Chernobyl disaster, reproductive-making factors, psychological and physical health, and reproductive history. The surveys contained investigator-created questions and well-established scales (e.g., Brief Symptom Inventory etc.).

Results: Overall, the Evacuee Group exhibited greater levels of stress reactions after Chernobyl, less trust in the information provided by the authorities and greater health anxiety than exhibited by the Control Group. The psychological and perceived physical health measures of the Evacuee Group also were lower than those of the Control Group. Evacuees reported that Chernobyl had a significant impact on their reproductive decisions. This was supported by a greater decrease in live births and an increase in the number of abortions after the accident in comparison to the Control Group.

Conclusions: These findings reveal that over nineteen years later, women evacuated from Chernobyl following the nuclear disaster, reported significantly poorer psychological and physical health. Evacuees also continued to manifest health anxiety and stress reactions. The impact of the event and subsequent evacuation documented in this study on life course decisions and psychological status suggests that additional attention should be paid to the socio-psychological aftermath of major disasters.

Keywords: Chernobyl; disaster; reproductive health; Ukraine; women

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Session 3: After Care

Chairs: Paula Madrid; M. Rooze

Establishing Permanent Mental Health Programs Post-Hurricane Katrina: Lessons Learned and Recommendations for Practice in Underserved Communities Impacted by Mass Trauma

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Operation Assist, a joint initiative of Columbia University's National Center for Disaster Preparedness and the Children's Health Fund was formed after Hurricane Katrina hit the Gulf Coast of the United States in August 2005. Mental health, medical, and public health professionals have spent one year addressing the needs of victims through direct work and research programs, which have resulted in findings relevant to disaster preparedness, resilience, and the creation of child-focused mental health programs post-disaster. While the immediate impact of a disaster is ubiquitous and widespread, children are most likely to require mental health intervention following a disaster. It also is important to care for families and service providers who also are at risk. Operation Assist staff have worked closely with local community leaders as well as with key health and mental health officials to develop relevant programs to meet the mental health needs of children and families. The proposed presentation will describe one year's work with children and families affected by Hurricane Katrina. Program findings, recommendations for future work and implications for policy, delivery and practice that are applicable to underserved communities impacted by mass trauma around the world will be discussed.

Keywords: children; disaster; Hurricane Katrina; mental health; public health

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Assessing Mental Health Disability and Its Psychosocial Correlates in a Cohort of Displaced and Residents from the Hurricane Katrina-Affected Gulf Coast

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A number of clinical and social psychologists have described acute traumatic stress as a normative response to disasters, much of which may be time-limited. However, other individuals exposed to disasters and major traumas experience varying degrees of significant mental health disability which may require clinical or social interventions. The field of disaster mental health has categorized patients in to one of three broad categories: (1) individuals with pre-existing psychiatric disorders who need ongoing, continuous care and treatment; (2) individuals with significant mental health disability subsequent to a disaster that might be related to post-traumatic stress disorder or other clinical

depression or anxiety disorders; and (3) individuals with a more diffuse symptomatology and mental health distress that may not be defined sufficiently so as to be characterized as a clinical condition. The latter two categories of patients may be more appropriately identified and treated based on the psychosocial factors defined in Silove and Steel's ADAPT model (Adaptation and Development After Persecution and Trauma), which include threats to safety and security, disrupted interpersonal bonds, confused identities and roles, and destabilized institutions. The current study examines these psychosocial correlates in a cohort of 1,245 randomly sampled, displaced and heavily impacted households in Louisiana and Mississippi, post-Katrina, and further considers their relationship to emotional and behavioral difficulties experienced by children who were exposed to the disaster. The prevalence of mental health disability among a disaster-exposed cohort, and the potential clinical and social interventions to address them will be discussed.

Keywords: disability; displaced persons; Hurricane Katrina; mental health; psychosocial

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Population Selective Serotonin Reuptake Inhibitor Prescription Rates Following a Terrorist Attack

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In order to determine if mental health service utilization increased following a terrorist attack, changes in population psychoactive drug prescription rates were assessed. The rate of selective serotonin reuptake inhibitor (SSRI) prescription use among enrollees of a public benefit insurance program in New York was measured before and after the terrorist attacks of 11 September 2001. The association between the geographic proximity to the events and the changes in the rate of SSRI prescription use around 11 September 2001 was assessed.

From September to December 2001, there was an 18.2% increase in the SSRI prescription rate compared to the previous eight month period ($p = 0.0011$) among individuals residing within three miles of the attack site. While there was a 9.3% increase in the SSRI prescription rate for non-exposed residents, this change was not statistically significant ($p = 0.74$).

In conclusion, there was a quantifiable increase in the dispensing of psychoactive drugs following the terrorist attacks of 11 September 2001. This effect varied in response with geographic proximity to the events. These findings build on the knowledge of the pervasive effects of disasters and terrorist events on population health, and demonstrate the need to include mental and behavioral health as key components of surge capacity and the public health response to mass traumas.

Keywords: medication; mental health; public health; surge capacity; terrorism

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Emergency Department Utilization for Mental Health Care after a Terrorist Attack

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Introduction: The purpose of this study was to assess the utilization of the emergency department for behavioral and mental health conditions in the aftermath of the terrorist attacks of 11 September 2001.

Methods: A New York State public benefit insurance program database was analyzed.

Four mutually exclusive geographic areas located at varying distances from the New York City attack site were identified. The data were divided into four time periods. All persons in the files were categorized by their postal codes of residence. Primary emergency department diagnoses were coded for post-traumatic stress disorder, substance abuse, psychogenic illness, severe psychiatric illness, depression, sleep disorders, eating disorders, stress-related disorders, and adjustment disorders.

Results: There was a 10.1% temporal increase in the number of emergency department behavioral and mental health diagnoses following the 11 September 2001 terrorist attacks for adult Medicaid enrollees residing within a three mile radius of the attack site. The incidence of these diagnoses declined, relatively in other geographic areas. In population-based comparisons, Medicaid recipients who lived within three miles of the World Trade Center following the terrorist attacks had a 20% increased risk of an emergency department mental health diagnosis (Incidence Density Ratio 1.2; 95% confidence interval 1.1–1.3), compared to those who were non-New York City residents.

Conclusion: This may be the first report of a quantifiable increase in emergency department utilization for mental health services among persons living in proximity to a terrorist attack and emphasizes the increasingly complex role that emergency departments play in responding to terrorism and disasters.

Keywords: behavioral health; Medicaid; mental health; post-traumatic stress; terrorism

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Social Support as a Buffering Factor Against Stress Reactions like Post-Traumatic Stress Disorder

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Introduction: The impact of Event Scale-Revised (IES-R) is one of the most regularly used forms of questionnaires in epidemiological research on disaster mental health regarding post-traumatic stress disorder (PTSD). The IES-R is used to determine the incidence and frequency of self-reported post-traumatic symptoms, according to the 4th edition of *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)* criteria. It is not clear why some people develop PTSD and others do not after experiencing a traumatic event. Also, among those scoring high on the