

Preface

This book is the result of a chance encounter between two physicians with diverse sets of expertise: the first, a psychiatrist who deals with mental illness through the exploration of the human mind; and the second, a radiologist who attends to mechanical or technical problems through the visualization of the human anatomy using radiation. Jun Shigemura is a medical practitioner. Rethy Chhem, once a medical practitioner, was, at the time of the Fukushima Nuclear Accident, the director of the Division of Human Health (NAHU) at the International Atomic Energy Agency (IAEA). As a clinical psychiatrist, Dr. Shigemura was not subordinate to additional administrative governance aside from his professional conscience. Dr. Chhem, however, while also abiding by his medical ethos, was strictly bound by the mission of an international intergovernmental organization whose aims were to “accelerate and enlarge the contribution of atomic energy to peace, health, and prosperity”.

It was during Dr. Chhem’s tenure at the IAEA that the co-editors met at “expert meetings” organized by the IAEA at the Fukushima Medical University (FMU). They shared a passion and commitment to assist the people of Fukushima affected directly or indirectly by radiation leaked from damaged nuclear power plants. Following his tenure with the IAEA, and relieved from the constraints of an institutional mission focused exclusively on matters directly related to safety and regulatory issues surrounding radiation, Dr. Chhem turned his attention to the sociological and psychological consequences of the radiation disaster. Both physicians, like many stakeholders investigating the fallout of this accident, had come to understand that the psychological and social consequences of this disaster generated far more harm than the physical radiation effects experienced by individuals. This observation triggered the desire to produce this book, which is dedicated to those who experienced the social and psychological consequences of the Fukushima nuclear accident.

Mental Health and Social Issues Following a Nuclear Accident: The Case of Fukushima aims to improve the global understanding of the impact of nuclear disaster across various dimensions, including (but not limited to) health,

psychological, social, economic, ethical, and behavioral perspectives. On March 11, 2011, at 2:46 p.m. local time, a mega-earthquake struck the islands of Japan. Subsequent aftershocks and tsunamis followed, eventually leading to a series of accidents at the Fukushima Daiichi Nuclear Power Plant of the Tokyo Electric Power Company (TEPCO). The natural disaster precipitated an environmental disaster: the reactors' nuclear meltdown and subsequent release of radioactive materials followed by mandatory evacuations of the surrounding region. It became the second largest nuclear accident since the 1986 Chernobyl disaster and measured Level 7 on the International Nuclear Event Scale.

To date, no fatalities owing to acute radiation exposure have been reported. Still, these events continue to profoundly affect the people of Fukushima Prefecture. Residents continue to struggle with an invisible hazard. The concerns associated with safety, physical, and mental health issues, along with the socioeconomic disruptions, have been massive. Although thousands of workers have already taken part in the clean-up process, it is a process that is expected to continue for decades. The challenges facing the people in Fukushima as they work to overcome this situation are long-term and ongoing.

When Dr. Shigemura was summoned as the first psychiatrist to support the mental health of nuclear plant workers on May 2011, he had little information to address such an overwhelming mission. He looked to the lessons from our past, particularly the 1979 Three Mile Island and the 1986 Chernobyl nuclear disasters. Research that emerged from Chernobyl revealed that the "mental health" impact was the most remarkable long-term public health consequence of the accident. As this accident was much larger than the one at Three Mile Island, and there was a dearth of substantive research available from the shorter-term Chernobyl outcomes (due to the secrecy of the former Soviet Union), it quickly became apparent that multidisciplinary, long-term efforts would be required.

During his tenure at the IAEA, Dr. Chhem initiated an innovative and unprecedented approach within a United Nations organization dealing with nuclear safety. An interdisciplinary framework drawing on Science and Technology Studies (STS) was crafted to analyze and address complex situations related to interactions between science and technology (nuclear in this case) and society (Fukushima Prefecture, Japan, and the global community). The STS approach not only aimed to address the public communication of science and technology, but was also concerned with the interaction between radiation and society. Taking an interdisciplinary approach meant that knowledge was constructed with the collaborative participation of Japanese physicians (involved in the wake of the nuclear accident), social scientists, and educator experts. The interdisciplinary collaboration resulted in the design of a Radiation, Health, and Society curriculum with and for Fukushima Medical University. This book reflects those interdisciplinary conversations between experts from the medical sciences and the social sciences, working together to address the complex issue of radiation fear, resilience, and social recovery in the post Fukushima Nuclear Accident.

The book consists of two parts: Part I: The Social Dimensions of a Compound Disaster and Part II: Mental Health Issues: Challenges for Resilience and Recovery

from the Fukushima Compound Disaster. Contributors include leading scientists in their fields along with healthcare providers supporting the residents of Fukushima across multiple disciplines. The book also includes an intriguing chapter on international collaboration and peer support between victims of the September 11, 2011, terrorist attack in New York City, USA, and victims of the Fukushima nuclear accident. While the limitations of a single book cannot encompass all of the expertise needed for a comprehensive understanding of such complex issues, the chapters offer a broad range of knowledge gathered from both the past and the present. We hope that this work will contribute to the body of knowledge needed to offer some measure of support to all those whose lives have been affected by the Fukushima disaster.

Tokorozawa, Japan
Fukushima, Japan
Hiroshima, Japan
Nagasaki, Japan
Phnom Penh, Cambodia

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