Adolescents' Response to Nuclear Threat: Before and After the Chernobyl Accident

Avigdor Klingman,1 Zehava Goldstein,2 and Pesia Lerner3
Received June 13, 1990; accepted November 9, 1990

This study investigated adolescent responses to nuclear threat during intervals preceding and following the Chernobyl disaster. The Nuclear Threat Index was administered to 96 Israeli subjects two months prior to and two months following the disaster. In addition, they were tested with Rotter's Locus of Control Scale. The data results indicate that on the whole there were differences in scores between the two administrations, especially with respect to self-reported activity (behavioral subscales). Adolescents reported significantly more past nuclear-related activity before the accident as well as fewer anticipated activities after the accident. Adjusted for the preaccident score differences data reveal that after the accident younger adolescents reported less pessimism and more previous activity than the older adolescents. In addition, males reported more nuclear-related activity than females; younger males reported more past activity and less pessimism than older males; "external" males reported more activity than "internal" males. Discussion focuses on possible explanations for the results, on limitations of the investigation, and on implications for further research.

1Head of the counseling program at the School of Education, University of Haifa, Haifa, Israel 31999. Received Ph.D. in school counseling from Tel Aviv University. Research interests: evaluation of primary prevention programs, crisis intervention in mass disasters, and death studies. To whom reprint requests should be addressed.
2Department of Education, University of Haifa, Haifa, Israel 31999. Received D.Sc. from the Technion (Israel Institute of Technology) Department of Management Science. Research interests: Statistics.
3Received M.A. in Education from University of Haifa, School guidance and counseling, Haifa, Israel.
INTRODUCTION

It is now well established that children are concerned about nuclear issues before they reach 12 years of age (Beardslee and Mack, 1982; Schwebel, 1982). Schwebel (1982), who studied students in Grades 4–12 found that younger students reported more fears and were less informed than older students. A fairly large percentage of children and adolescents listed nuclear war among their three worst fears (Hesse, 1986; Goldenring and Doctor, 1984, 1986; Drolet and Fetro, 1987). Stillion and her colleagues, using the same instrument (Nuclear Threat Index) to assess reaction to the nuclear threat on the part of adolescents in six different countries, found that youth in each of the six nations (Australia, Canada, Israel, Norway, Scotland, and the United States) reported accurate and realistic knowledge; many reported negative emotional reactions when they thought about nuclear war (Stillion et al., 1988). The study also indicates that the majority of students in each of these countries do not systematically learn about nuclear issues, nor do they discuss their emotional reactions in informed settings. Detailed examination of these responses lends support to the assumption that living in a nuclear age has had an impact on children's cognitive as well as affective development.

The impact of nuclear threat as found in these studies might best be described as an indirect one. An event that could be considered as having a somewhat more direct psychological effect was the presentation of the television drama The Day After. It gave the general population a more realistic glimpse at the widespread consequences of a nuclear disaster. French and Van Hoorn (1986), who assessed the impact of the show, found that the frequency of thinking about the possibility of nuclear war rose overall among viewers from a "before" value of 36% responding that they thought of it often to 46% following the viewing ($p < .001$). Most of the increase was attributable to subjects 20 years old or younger. The percentage of younger viewers reporting increased frequency of thinking about nuclear disaster after viewing the film was almost four times that of the older viewers. The Three Mile Island nuclear disaster presented an opportunity to study the reaction of people directly affected by a nuclear disaster free of loss of life, injury or damage to personal property (Handford et al., 1986). As for the general population, the Chernobyl disaster was unique in that it was the closest to an actual threat, and thus presented a unique opportunity to study the reaction of youth not physically involved but actually exposed to acute "psychological disaster."

The present study attempts to investigate Israeli youth's response to nuclear threat following the Chernobyl accident of April 1986. Up until the Chernobyl accident of April 1986 the nuclear industry threat has been mostly hypothetical. Although for populations outside the affected area the