

# Post-Traumatic Stress Disorder in Israeli Survivors of Childhood Cancer

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In 2007, almost 10,400 American children younger than 15 years were diagnosed with cancer, with approximately 1,545 dying from the disease (National Cancer Institute, 2009). In Britain, the risk of a child younger than 15 years being diagnosed with cancer is about 1 in 500 (Cancer Research UK, 2009). Significant improvements have been made in five-year relative survival from childhood cancers, improving from 58% for those treated from 1975–1977 to 80% for those treated from 1996–2003 (Jemal et al., 2008). Approximately 270,000 people are survivors of childhood cancer. This equates an estimated 1 in every 640 young adults aged 20–39 who are survivors of childhood cancer (Candlelighters Childhood Cancer Foundation, 2010). As more and more patients with childhood cancer survive to adulthood, thanks to improvements in diagnostic and therapeutic modalities, increased attention is being focused on the long-term psychological effects of the disease and its treatments (Apter, Farbstein, & Yaniv, 2003; McGrath, 2002). Some psychologists have suggested that the stress and anxiety inherent to cancer diagnoses and treatments are a traumatic event that may lead to the development of post-traumatic stress disorder (PTSD) later in life (McGrath, 2002). Therefore, as the number of cancer survivors with PTSD is expected to increase, more significance will be placed on the determination of who suffers from PTSD and what factors are associated with its development. This description is a first step toward the development of interventions that can prevent and treat PTSD in the future.

## Background

According to the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.) (DSM-IV) (American Psychiatric Association, 1994), PTSD is defined as a serious mental condition that arises after an individual is confronted with a traumatic event associated with an actual death, a threatened death, or a serious injury. The event

**Purpose/Objectives:** To investigate the prevalence, symptom severity, and risk factors associated with post-traumatic stress disorder (PTSD) in childhood cancer survivors.

**Design:** Descriptive, correlational study.

**Setting:** Follow-up clinic in Petach Tikva, Israel.

**Sample:** Convenience sample of 70 adult Israeli survivors of childhood cancer.

**Methods:** Questionnaires (the Post-Traumatic Diagnostic Scale and the Multidimensional Scale of Perceived Social Support) were distributed to participants, and demographic and clinical data were obtained from medical records.

**Main Research Variables:** Post-traumatic stress, social support, and clinical and demographic data.

**Findings:** Twenty (29%) of the participants met the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.) criteria for PTSD; 10% experienced mild, 40% moderate, and 50% moderate to severe symptoms. Only 16% of the sample did not experience any symptoms of PTSD. A statistically significant negative relationship was found between PTSD symptom scores and the current age of the respondent ( $r_s = -0.27$ ,  $p = 0.03$ ) and time since medical treatment ( $r_s = -0.34$ ,  $p = 0.004$ ) but not any other demographic or clinical variables or social support.

**Conclusions:** Higher severity of PTSD symptoms was found, possibly because of local living conditions. Most clinical and demographic variables were not risk factors. This population should be studied further in an effort to prevent PTSD via early diagnosis.

**Implications for Nursing:** Oncology nurses should be aware of the potential risk factors (recent completion of treatment and younger current age) and the high prevalence and severity of PTSD among survivors of childhood cancer to identify patients at higher risk and develop programs that prevent, limit, and treat PTSD.

must elicit feelings of fear, helplessness, or horror. The diagnosis of PTSD is determined by evaluation of the presence of symptoms associated with the condition. The symptoms fall into three categories: re-experiencing the event (e.g., reliving the traumatic event or having intrusive memories or nightmares), avoiding stimuli