RESEARCH LETTERS

Comorbid Posttraumatic Stress Symptoms in an Urban Population of Mothers Screening Positive for Depression

Screening for maternal depression in clinical and community settings has been the topic of numerous recent studies and an important component of the 2009 Institute of Medicine report *Depression in Parents, Parenting, and Children*.[1] According to the report, however, studies of maternal depression screening have largely ignored the implications of comorbid mental health conditions on screening approaches and evaluation of screening effectiveness.[1] One condition that may accompany—and complicate—maternal depression is posttraumatic stress disorder (PTSD).

Posttraumatic stress disorder and depression share several diagnostic criteria, and depression—when accompanied by posttraumatic stress symptoms—is less responsive to treatment.[2] Whereas depression has an extensive evidence base for effective primary care–based treatment, PTSD typically requires mental health specialty services. In certain high-risk populations, therefore, it is important to understand the likelihood with which depression screening instruments identify mothers who may have PTSD.

Methods. We surveyed mothers of children aged 0 to 5 years from Women, Infants, and Children offices and Head Start centers in a single city. Research assistants approached all mothers in Women, Infants, and Children office waiting rooms; Head Start mothers were recruited through flyers and by Head Start staff unaware of the study's specific purpose. Ability to communicate in English or Spanish was the eligibility criterion.

Respondents answered a face-to-face questionnaire, which included the Patient Health Questionnaire–2 and the Modified PTSD Symptom Scale. The Patient Health Questionnaire–2 is a 2-item depression screening instrument with performance characteristics of 83% sensitivity and 92% specificity for major depression.[3] The Modified PTSD Symptom Scale is a valid scale of PTSD symptomatology.[4] Consistent with previous literature,[5] we created a proxy variable for PTSD diagnosis by mapping individual Modified PTSD Symptom Scale items onto *Diagnostic and Statistical Manual of Mental Disorders* (Fourth Edition) (*DSM-IV*) diagnostic criteria. Data analysis was composed of descriptive statistics. The Boston Medical Center institutional review board approved this study.

Results. From a total sampling frame of 5426 mothers, we surveyed 190 mothers. One hundred ten (58%) reported English as their primary language; 55 (30%), Spanish. Seventy-seven women (41%) self-identified as black and 75 (39%) as Latina. On average, the mothers had 2.16 children (SD, 1.27); most mothers were younger than 30 years old; and 43% worked outside the home.

Of 190 mothers, 56 (29%) screened positive for depression and 32 (17%) had symptoms consistent with *DSM-IV* criteria for PTSD. Of the 56 women with positive depression screens, 14 (25%) had symptoms consistent with PTSD. Thirty-one women had both positive depression screens and reported histories of trauma; of these, 45% had symptoms consistent with PTSD.

In our sample, 89 women (47%) reported having an unusually traumatic event in their lifetime. The most common traumas were sexual assault, physical assault, witnessing someone shot or killed, and witnessing the death of a family member. Among those having experienced a trauma, 32 (36%) had symptoms consistent with PTSD.

Comment. A screening test is indicated if it accurately identifies a condition, which can then be treated effectively. According to the US Preventive Services Task Force, adult depression fits these criteria, provided that appropriate systems exist to ensure accurate diagnosis and appropriate follow-up and treatment.[6] However, when depression is comorbid with posttraumatic stress symptoms—as it appears to be in 25% of our sample—it is both more difficult to diagnose and more refractory to treatment. Among populations in which this comorbidity is highly prevalent, depression may no longer fit the paradigm for a good screening test, given current screening practices and availability of services.

To fulfill the US Preventive Services Task Force's criteria for diagnostic accuracy and appropriate follow-up and treatment, therefore, it may be that maternal depression screening in certain settings ought to be augmented with additional questions around trauma exposure or symptomatology and that more detailed screening—accompanied by algorithms for referral—may be warranted. Given the limited mental health resources for low-income populations, the high prevalence of maternal depression, and the benefits to children of treating depressed mothers, resolving these issues is of substantial public health importance.

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Non-Hodgkin Lymphoma Survival Among Adolescents

The risk of dying from non-Hodgkin lymphoma (NHL) has been found to be higher among young adults than children,[1] and mortality from all invasive cancers is higher among adolescents compared with other pediatric age groups.[2] We examined the extent to which the 5-year NHL survival rate varied by age group (child, adolescent, and young adult).

Methods. In an analysis of 2442 cases of NHL among US children (age, 0-14 years), adolescents (age, 15-19 years), and young adults (age, 20-29 years) diagnosed from 1992 through 2001 and reported to 13 Surveillance, Epidemiology and End Results registries, we assessed risk of death within 5 years of cancer diagnosis for members of each age group. We also assessed the effects of 9 independent variables (sex, race/ethnicity, NHL stage at diagnosis, year of diagnosis, histology, radiation treatment, poverty status, household income, and patient migration) on this risk. We modeled 5-year overall cause-specific survival with multivariate Cox proportional hazards to obtain hazard ratios (HRs) and their 95% confidence intervals (CIs). In the final model, we adjusted for NHL subtype, year of diagnosis, race/ethnicity, and NHL stage at diagnosis.

Table. Multivariate Cox Proportional Hazards Analysis for Death From Non-Hodgkin Lymphoma

Characteristic	Proportional HR[a] (95% CI)	*P* Value
Age group, y		
0-14	1 [Reference]	
15-19	2.36 (1.68-3.31)	<.01
20-29	3.09 (2.32-4.13)	<.01
Race/ethnicity		
White	1 [Reference]	
Hispanic	1.23 (0.97-1.56)	.09
Black	1.24 (0.92-1.67)	.16
Other	1.52 (1.14-2.01)	<.01
Stage		
I	1 [Reference]	
II	1.34 (0.98-1.84)	.07
III	1.74 (1.21-2.49)	<.01
IV	3.20 (2.47-4.14)	<.01

Abbreviations: CI, confidence interval; HR, hazard ratio.
[a] Stratified by diagnosis time period (1992 to 1994, 1995 to 1998, and 1999 to 2001) and histologic subtype (Burkitt lymphoma, diffuse large B-cell lymphoma, indolent, lymphoblastic, lymphoma, not otherwise specified, and peripheral T cell/natural killer/other T cell).

Results. Adolescents were more likely to die within 5 years of NHL diagnosis compared with children (HR, 2.4; 95% CI, 1.7-3.3) (**Table**). Young adults were also more likely to die within 5 years of NHL diagnosis compared with children (HR, 3.1; 95% CI, 2.3-4.1). Patients with NHL aged 29 years or younger with stage III or stage IV disease were more likely to die within 5 years of diagnosis compared with those with stage I disease (HR, 1.7; 95% CI, 1.2-2.5; and HR, 3.2; 95% CI, 2.5-4.1, respectively).

Comment. We found that 5-year NHL survival rates were lower among adolescents and young adults than among children and lower among patients with advanced disease than among those with early disease. Adolescents are increasingly being recognized as a group with unique biological and psychosocial traits that may affect their cancer survival.[3] The types and distribution of cancers among adolescents differ significantly from those among children and adults.[2] Factors that may contribute to adolescents and young adults having poorer NHL survival rates than children include a lower rate of enrollment in clinical trials, poorer adherence to treatment regimens, and less access to optimal cancer services.[4,5] Only 10% to 15% of adolescents with cancer were enrolled in clinical trials from 1997 to 2003 compared with 60% of children with cancer.[5] Issues associated with adolescents' transition from the dependence of childhood to the autonomy of adulthood, including disagreements with authority figures, confusion about responsibilities, lack of communication, and failure to accurately perceive the severity of their cancer and the risk it poses,[4] may negatively affect the quality of cancer care they receive and their chances of survival. The NHL survival rate among young adults was also lower than that among children, and for many of the same reasons it was lower among adolescents, including lower rates of enrollment in clinical trials