Parental Psychological Distress and Children's Mental Health: Results of a National Survey

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ABSTRACT

OBJECTIVE: Questions persist as to which dimensions of child mental health are most associated with parental mental health status and if these associations differ by parental gender. We assessed associations between parental psychological distress and children's mental health.

METHODS: Pooled data from the 2001, 2002, and 2004 National Health Interview Surveys (NHIS), a nationally representative, cross-sectional survey of US children aged 4 to 17 (n = 21,314), were used. Multivariate logistic regression was performed assessing associations between parental psychological distress, measured by the Kessler 6 scale, and the extended-form Strengths and Difficulties Questionnaire (SDQ) scales.

RESULTS: Logistic regression demonstrated associations between parental psychological distress and increased likelihood of child mental health problems. Children aged 4 to 11 were more likely to have mental health problems if they had a psychologically distressed father (odds ratio [OR] 7.5, 95% confidence interval [CI] 2.3–24.3) or mother (OR 6.7, 95% CI 2.7–16.7). Children aged 12 to 17 with a psychologically distressed father (OR 4.53, 95% CI 1.18–17.47) or mother (OR 3.90, 95% CI 1.34–11.37) were also more likely than those without to have mental health problems. In parents of both genders, associations existed between parental psychological distress, and abnormal emotional symptoms in younger children, conduct disorder in older children, and hyperactivity in children of all ages.

CONCLUSIONS: Parental psychological distress appears similarly associated with adverse child mental health outcomes, regardless of parental gender. These findings corroborate limited prior research and demonstrate that associations between child mental health and parental mental illness are similar in magnitude for fathers and mothers.

KEYWORDS: child behavior; Kessler 6; mental health; National Health Interview Survey; Strengths and Difficulties Questionnaire

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WHAT'S NEW

Questions persist regarding whether the gender of a parent alters how parental mental health affects children. We report parental psychological distress was, regardless of parental gender, associated with adverse emotional symptoms in younger children, conduct disorder in older children, and hyperactivity in all children.

PARENTAL MENTAL HEALTH may have a lasting impact on child development and outcomes. Maternal mental health problems have been linked to poor emotional, behavioral, social, and academic outcomes in children.[1,2] Treatment of parental mental illness may be critically important for children's well-being; remission of maternal depression reduces the risk for childhood morbidity.[3] The importance of this is underscored by screening recommendations promulgated by national organizations (eg, Bright Futures), which encourage physician screening of children and family risk factors including maternal depression.[4]

The effects of paternal mental health status on children's psychological well-being are less well understood. Prior research suggests paternal depression also contributes to poor emotional and behavioral outcomes of children. However, such research has overwhelmingly focused on young children and the perinatal period.[5–7] Two studies have considered representative US samples.[8,9] Findings from these may be limited, however; crude screening measures were used, and neither study was able to assess which aspects of abnormal child behavior are affected.

We attempted to address the shortcomings of these prior studies and expand their relevance to the pediatric clinic. We employed widely used, detailed psychometric measures available in nationally representative federal survey data to assess the associations between multiple dimensions of child mental health and parental psychological distress.

METHODS

STUDY POPULATION

The National Health Interview Survey (NHIS) is a nationally representative, cross-sectional household interview survey conducted annually by the US Centers for

Disease Control and Prevention. It employs a multistage, clustered sample design. In each family surveyed, a randomly selected adult completed questionnaires regarding the household and his or her health status. Another household adult, possibly the same adult, is selected to answer questions about an index child. Informed consent was obtained from all participants, and the institutional review board at the National Center for Health Statistics approved the research protocol.

We analyzed matched child–parent sample data from 2001, 2002, and 2004. These years were chosen due to the availability of the robust screening measures used here. Only children and parents with completed mental health screenings were included. Of 29,265 children assessed, 74% of parents selected to complete the child questionnaire were also sampled as the household adult. Of these, 98.4% of children matched to parents had mental health information available from a standardized screening instrument. Available information indicates children from households where a parent was the sampled adult were similar in gender distribution but were slightly younger (mean, 10.4 vs 10.9 years old), more likely to be white (64.5% vs 54.9%), from smaller families (4.4 vs 4.9 people), and more likely to have health insurance (90.6% vs 86.7%) than children whose parents were not the sampled household adult.

VARIABLES

DEPENDENT VARIABLES

Child mental health problems were assessed through adult responses to the extended-form Strengths and Difficulties Questionnaire (SDQ). The SDQ has been used worldwide, has excellent psychometric properties, has clinical relevance, and correlates highly with another commonly used metric, the Child Behavior Checklist.[10–13] The NHIS used the extended-form SDQ only during the 3 years analyzed here.

The SDQ assesses conduct problems, hyperactivity-inattention, emotional symptoms, and peer relationship problems along four 5-question subscales (Table 1). Each question assesses child mental health within the past 6 months and is scored on a 3-point Likert scale (not true, somewhat true, certainly true). The scoring methodology is available elsewhere.[14] Briefly, responses are scored 0 to 2, with higher scores indicating greater likelihood of abnormal mental health. Questions sum to provide subscale scores and a total difficulties score. Here, previously validated dichotomous variables indicating abnormal child mental health status were used (eg, ≥17 indicates abnormal on total difficulties scale).

INDEPENDENT VARIABLE

The Kessler 6 scale was used to assess parental mental health status. It measures nonspecific psychological distress. It has been shown to have good psychometric properties, to be clinically useful, and to outperform similar screening tools.[15,16] Parents were asked how often, during the past 30 days, they felt: "so sad that that nothing could cheer them up"; "nervous"; "restless or fidgety"; "hopeless"; "that everything was an effort"; and "worthless." To each of these questions, parents could respond: "none of the time"; "a little of the time"; "some of the time"; "most of the time"; or "all of the time." Each question was scored 0 to 4, with a summed score of ≥13 indicating the parent likely experienced serious psychological distress.

Table 1. Strengths and Difficulties Questionnaire for Assessing Child Mental Health

During the past 6 months, the child…

Emotional symptoms
- Often complains of headaches, stomachaches, or sickness.
- Has many worries or often seems worried.
- Often unhappy, depressed, or tearful.
- Is nervous or clingy in new situations.
- Has many fears or is easily scared.

Conduct problems
- Often has temper tantrums or has a hot temper.
- Is generally well behaved; usually does what adults request.
- Often fights with other children or bullies them.
- Often lies or cheats.
- Steals from home, school, or elsewhere.

Hyperactivity behavior
- Is restless or overactive, or cannot stay still for long.
- Constantly fidgeting or squirming.
- Is easily distracted, with wandering concentration.
- Thinks things out before acting.
- Has a good attention span; sees chores or homework through to the end.

Peer relationships
- Is rather solitary; tends to play alone.
- Has at least one good friend.
- Generally liked by other children.
- Is picked on or bullied by other children.
- Gets on better with adults than other children.

CONTROL VARIABLES

Because socioeconomic status and respondent demographics may influence mental health statuses,[17] children's demographic attributes including gender, ethnicity, poverty status, health insurance status, birth weight, region, and the number of children present in the household were included as potential confounders. A variable was also included indicating whether parents delayed a child's health care within the past 12 months for any of the following reasons: they were unable to "get an appointment soon enough"; "the clinic/doctor's office wasn't open when [they] could get there"; they "couldn't get through on the telephone"; they "didn't have transportation"; or because they had, "to wait too long to see the doctor." Such a variable may be reflective of additional social, familial, or economic constraints not assessed by other control variables used.

We additionally adjusted for the presence of chronic disease within the family because a child's mental health may be affected by their own or a parent's disease.[18,19] A variable indicating if a child was ever diagnosed with any of the following diseases was included: attention-deficit/hyperactivity disorder, arthritis, learning disability, asthma, autism, cerebral palsy, heart disease, cystic fibrosis, diabetes, Down syndrome, muscular dystrophy, a developmental delay, retardation, sickle cell, or blindness