

## Perceptions of parents' health status and relationship to somatic preoccupation

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### Abstract

**Objectives:** This study was designed to examine the potential relationship of family factors to somatic preoccupation. **Method:** A total of 116 internal medicine patients completed research booklets exploring perceptions of parents' health, childhood trauma, borderline personality symptomatology [Personality Diagnostic Questionnaire-Revised (PDQ-R)], and somatic preoccupation (Bradford Somatic Inventory). **Results:** Simple correlations revealed that most of the relationships between somatic preoccupation and remaining study variables were statistically significant (e.g., poor parental health status correlated to somatic preoccupation). Using path analysis, poor perception of mother's health

demonstrated an indirect effect on somatic preoccupation via borderline personality symptomatology, whereas, poor perception of father's health demonstrated an indirect effect on somatic preoccupation via childhood trauma. Neither parents' health status demonstrated direct effects on somatic preoccupation. **Conclusions:** There appear to be parent gender differences in the mediation of the relationship between poor parental health status and somatic preoccupation in the offspring. The implications of these findings are discussed. © 2001 Elsevier Science Inc. All rights reserved.

*Keywords:* Parental health status; Somatic preoccupation; Somatization; Borderline personality; Childhood trauma

### Introduction

Limited research has examined the relationship between family-of-origin factors and the development of somatization. For example, Kellner [1] investigated the contribution of genetic factors as well as a stressful early developmental environment, whereas, Terre and Ghiselli [2] reported age-specific factors. In this latter study, developmental phase was an important consideration as somatic symptoms were associated with family disorganization and low family cohesion among junior high students, with culturally and intellectually poor family environment among high school

students and with family conflict and achievement orientation among college students.

Other studies have indicated additional family variables that may contribute to the development of somatization. Compared with epileptics, patients with psychogenic seizures described their families as having more health problems and greater emotional distress [3]. Among individuals with chemical intolerance, there appear to be increased rates of weak paternal relationships [4]. In a review of childhood factors and somatic symptoms, Stuart and Noyes [5] described anxious attachment behavior that derives from the early relationship with caregivers. These authors also indicated that early exposure to illness in family members increases the probability of somatic symptoms in adulthood. Garralda [6] identified high rates of family health problems and parental psychological distress, as well as family modeling and reinforcement of illness behavior, as factors in somatic preoccupation.

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Finally, among college students, Russek et al. [7] found that the perception of love and caring from parents was associated with fewer somatic symptoms.

In addition to family factors, other variables have been attributed to somatic preoccupation in adulthood, including early trauma and personality disorder. A history of trauma has been associated with disorders such as psychogenic seizures [8], chronic pelvic pain [9], fibromyalgia [10], and gynecologic complaints [11], as well as somatic preoccupation [12–15]. Empirically, somatic preoccupation has been associated with several personality disorders, particularly Cluster B personality disorders including borderline personality [16–18].

The current study was undertaken to examine the relationship between perceptions of parents' health status while growing up and current somatic preoccupation among a study group of internal medicine patients. Previous research supports the expectation that such relationships exist. However, what has not been addressed is the possibility that such relationships are spurious. It is possible that childhood trauma and subsequent borderline personality symptomatology co-exist with perceptions of poor parental health, and that these are the variables that best explain the development of somatic preoccupation. Accordingly, we included measures for childhood trauma and borderline personality symptomatology to explore whether these variables would mediate the relationship between parental health status and somatic preoccupation.

## Method

### *Participants*

Participants were 33 men and 83 women ( $N = 116$ ), ranging in age from 19 to 54 years ( $M = 35.86$ ,  $S.D. = 8.96$ ), who presented for medical care in a resident-staffed ambulatory internal medicine clinic located in a mid-sized, mid-western city. This population was chosen for study in an effort to explore study hypotheses among primary care rather than psychiatric or other types of patients, as somatizing patients are more liable to present in primary care settings. All participants were patients with scheduled appointments at the ambulatory internal medicine clinic and were (1) between the ages of 18 and 55 years, (2) cognitively intact, and (3) stable enough from a medical perspective to participate in a research project. The majority (90.5%) of participants indicated being White, Non-Hispanic, with the remainder (9.5%) indicating their racial/ethnic group as Black/African American. Most participants (86.2%) had attained at least a high school diploma, with 17.2% reporting the completion of a bachelor's degree. Of the 137 candidates who were invited to participate, 116 completed measures for an ultimate response rate of 84.5%.

### *Procedure*

At the time of registration, each study candidate was invited into the project by the waiting-room receptionist during times of convenience (i.e., the sample was one of convenience). The receptionist explained the purpose of the project (i.e., to explore physical symptoms and their relationship, if any, to psychological symptoms), provided research surveys to participants, and asked them to complete measures in the waiting room (i.e., research materials were completed onsite). Materials were returned by participants in sealed envelopes for storage. Respondents were thanked for their participation but were not compensated in any way.

### *Measures*

#### *Parental health status*

Participants were asked to separately rate each parents' health status, "when you were a child," with response options ranging from 1 ("very poor") to 5 ("excellent").

#### *Childhood trauma*

Participants were asked whether, in childhood, each had experienced sexual abuse (i.e., "any sexual activity against your will"), physical abuse (i.e., "any physical insult against you that would be considered socially inappropriate by either yourself or others and that left visible signs of damage on your body either temporarily or permanently or caused pain that persisted beyond the 'punishment'"), emotional abuse (i.e., "verbal and nonverbal behaviors by another individual that were purposefully intended to hurt and control you, not tease or kid you"), physical neglect (i.e., "not having your basic life needs met"), and witnessing violence (i.e., "the first-hand observation of violence that did not directly involve you"). Response options were "yes" or "no." An overall measure of exposure to trauma was developed by summing the number of different forms indicated by the respondent for a possible score that ranged from 0 to 5.

#### *Borderline personality symptomatology*

Borderline personality symptomatology was measured using the borderline personality scale of the Personality Diagnostic Questionnaire-Revised (PDQ-R) [19], an 18-item self-report measure that is based upon the DSM-III-R criteria for borderline personality disorder. This measure is reported to be a useful screening tool for borderline personality in both clinical [20,21] and non-clinical [22] samples.

#### *Somatic preoccupation*

Somatic preoccupation was measured using the Bradford Somatic Inventory [23], a 46-item yes/no questionnaire. Individual items consist of somatic symptoms most frequently reported by anxious and depressed patients. Two items relating only to male respondents ("Have you

Table 1  
Pearson correlation coefficients among study variables (N = 116)

	Somatic preoccupation	Childhood trauma	Borderline personality symptomatology	Mother's health status
Somatic preoccupation	–			
Childhood trauma	.38*	–		
Borderline personality symptomatology	.43*	.28*	–	
Mother's health status	–.33*	–.20	.31*	–
Father's health status	–.25*	–.28*	–.09	.30*

\* P < .005, one-tailed.

had difficulty getting a full erection?” and “Have you felt that you have been passing semen in your urine?”) were deleted due to concerns about their applicability in the study setting, which resulted in a total of 44 items for the scale. Scores were computed based on the total number of symptoms endorsed.

**Results**

Pearson correlation coefficients representing the simple relationships among variables are presented in Table 1. To correct for Type I error when calculating 10 correlation coefficients, the probability value for determining statistical significance was calculated using the Bonferroni correction (i.e., .05/10 = .005). Note that, with only two exceptions, all correlation coefficients are statistically significant, and all but one have an absolute value of .20 or greater. At the univariate level, somatic preoccupation is related to childhood trauma, borderline personality symptomatology, and negative perceptions of mother's and father's health while the respondent was growing up. The simple correlations between somatic preoccupation and these other variables are similar in magnitude, and each of these correlates of somatic preoccupation is generally related to one another.

Given the interrelationships among variables, the unique relationships between somatic preoccupation and the other

variables are unclear from the correlation matrix. Accordingly, we performed a path analysis illustrating the effects, both direct and indirect, of perceptions of parental health status, childhood trauma, and borderline personality symptomatology on the experience of somatic preoccupation in accordance with our theoretical model. Path analysis entails the a priori sequencing of variables and enables one to determine the unique contribution of the variable within the sequence.

Path sequence and coefficients are reported in Fig. 1. Note that perceptions of mother's health demonstrated an indirect effect on somatization via an effect on borderline personality symptomatology, whereas, perceptions of father's health demonstrated an indirect effect on somatic preoccupation via an effect on experience of childhood trauma. Neither mother's nor father's health status demonstrated direct effects on somatic preoccupation (i.e., no relationship once childhood trauma and borderline personality symptomatology were statistically controlled). Childhood trauma exhibited both direct effects on somatic preoccupation, as well as indirect effects through borderline personality symptomatology. Last, we checked for possible statistical interactions between perceptions of mother's and father's health in explaining childhood trauma, borderline personality symptomatology, and somatic preoccupation. However, the interaction term was not statistically significant in any of these cases.

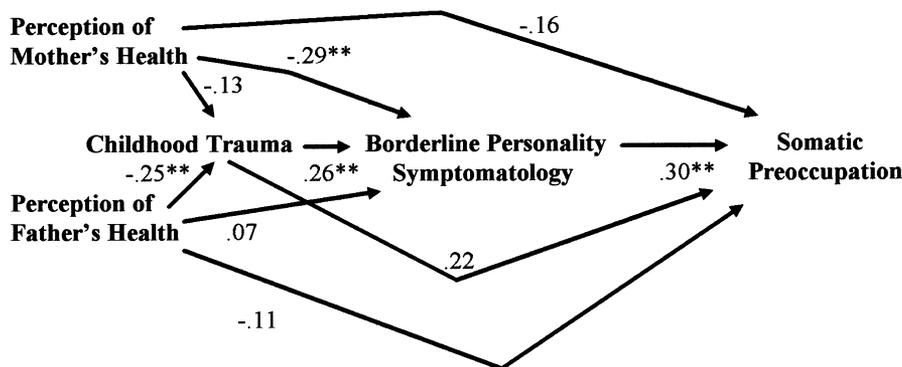


Fig. 1. Path analytic model for relationships among study variables.

## Discussion

From these data, it appears that a negative perception of parental health status is not directly related to somatic preoccupation in adulthood. However, there are indirect effects through borderline personality symptomatology (for negative perception of mother's health) and through childhood trauma (for negative perception of father's health). The interpretation of these findings is speculative. However, one interpretation is that mother's health status only becomes a meaningful contributory variable to somatic preoccupation in the presence of borderline personality symptomatology in the offspring. This interpretation would suggest that characterological compromise in combination with limited maternal availability heightens the risk for somatic preoccupation. With regard to father's health status, one interpretation might be that perception of father's poor health and childhood trauma are associated because of father's greater likelihood of social and occupational impairment as a result of health problems, perhaps, heightening the risk for maltreatment of offspring. In summary, the mediation of poor parental health status in somatic preoccupation appears to vary as a function of parent gender; the contribution of mother's poor health to the child's somatic preoccupation may occur through unavailability, whereas, the contribution of father's poor health may be through more active maltreatment. These interpretations need to be confirmed through additional research.

The limitations of this study include the self-report nature of data collection, the limited query into parents' health status, and the imprecise measurement of borderline personality symptomatology (the PDQ-R is known to be over-inclusive). Indeed, the imprecision of personality diagnosis results in our use of the concept of borderline personality "symptomatology" rather than "disorder." To our knowledge, however, this is the only study of somatic preoccupation and family factors to measure multiple variables and simultaneously examine their relationships through a path analytic model, specifically exploring the role of parental health status. With further clarification of the role of parental health status, identification of at-risk children (i.e., those with physically unhealthy parents) and possible prevention strategies may be developed.

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