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The Interpersonal Model of Health Anxiety: Testing predicted paths and model specificity

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ABSTRACT

Health anxiety involves persistent worry about one's health and is characterized by dysfunctional interpersonal processes such as excessive health-related reassurance-seeking and feelings of alienation from others. Cognitive-behavioral models largely ignore cyclical, interpersonally averse behaviors and social cognitions observed amongst health anxious individuals. The Interpersonal Model of Health Anxiety (IMHA) proposes health anxiety is maintained through activated anxious attachment insecurities, which drive frequent, but ineffective, health-related reassurance-seeking from others. Such excessive health-related reassurance-seeking leads to health-related alienation and beliefs others are unconcerned about one's perceived health problems. Feeling alienated from others fuels further health-related worry, resulting in continued self-defeating attempts at health-related reassurance-seeking. The present study offers the first comprehensive articulation and test of the IMHA. Using a cross-sectional design and 107 undergraduates, path analysis supported five of six hypothesized paths in the model; all paths except that from anxious attachment to health-related reassurance-seeking were significant and in the expected direction. Specificity tests suggested anxious attachment was more central than avoidant attachment to the IMHA. The present test of the IMHA as a single, coherent model provides a conceptual foundation for future research on interpersonal processes in health anxiety. Clinical implications are discussed.

1. Introduction

Health anxiety involves persistent worry about one's health along with beliefs that one has an illness or may contract a serious disease (Taylor & Asmundson, 2004). It may be viewed as a dimensional construct, present among clinical and nonclinical samples (Longley et al., 2010). Health anxiety is debilitating to the individual and costly to the healthcare system (Longley, Watson, & Noyes, 2005). In undergraduates, health anxiety is linked to increased doctor visits, decreased academic performance, and co-occurring psychological distress (Abramowitz, Deacon, & Valentiner, 2007). Given such negative consequences, there is a need to better understand factors that maintain health anxiety.

1.1. Advancing existing research

While dysfunctional cognitive and behavioral processes in health anxiety are well-studied (Taylor & Asmundson, 2004), research has largely ignored dysfunctional interpersonal processes such as feelings of alienation from others (Longley et al., 2005). Health anxious individuals are largely studied in-isolation-from-others, rather than in-relation-to-others, despite theory and research suggesting health anxiety is associated with serious interpersonal problems (MacSwain et al., 2009; Noyes et al., 2003).

In what little research is conducted on interpersonal processes in health anxiety, usually only unidirectional relationships are tested (MacSwain et al., 2009), thereby failing to account for cyclical interpersonal processes proposed in interpersonal models of health anxiety (Stuart & Noyes, 2005). To date, most research on interpersonal processes in health anxiety also involves little conceptual integration (see Noyes et al., 2003 for an exception). A single, coherent, conceptual model is needed to unify disparate findings and allow research to advance cumulatively. This research also suffers from a lack of statistical integration. Using multivariate statistics (e.g., path analysis) to test integrative conceptual models,

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researchers can simultaneously test a system of variables and help to identify unique or redundant predictors of health anxiety.

Although researchers and clinicians have long highlighted the need to develop and test models explicating interpersonal processes maintaining health anxiety (Noyes et al., 2003), research in the area is only beginning to emerge. Our study addresses the aforementioned limitations by proposing the Interpersonal Model of Health Anxiety (IMHA; MacSwain et al., 2009; Noyes et al., 2003) and testing this integrative conceptual model using path analysis in undergraduates.

1.2. Outlining the IMHA

According to the IMHA, health anxiety is exacerbated among insecurely attached individuals through a maladaptive interpersonal cycle of health-related reassurance-seeking (seeking care from others regarding one's perceived health problems), alienation (believing that others are unconcerned with one's perceived health problems), and worry (anxiety about one's perceived health problems; MacSwain et al., 2009). Drawing on adult retrospective reports of childhood (Noyes et al., 2002), the IMHA hypothesizes health anxiety represents a maladaptive expression of insecure attachment developed from adverse early caregiving and childhood physical illness experiences (Stuart & Noyes, 1999). These early adverse experiences are believed to influence expressions of health anxiety and interpersonal interactions in adulthood. The IMHA described here has received preliminary empirical support in adults (MacSwain et al., 2009; Noyes et al., 2003).

The IMHA proposes attachment styles are activated in situations of threat (e.g., perceived ill health), initiating the need to seek support from others to maintain interpersonal closeness and manage responses to stress (Sadava, Busseri, Molnar, Perrier, & DeCourville, 2009). Health anxious individuals communicate their preoccupation with attachment needs and health fears to others via reassurance-seeking about somatic complaints, increasing the likelihood their attachment insecurities and health-related worry will be managed interpersonally (Stuart & Noyes, 2005). While insecurely attached individuals learn that reassurance-seeking is effective for regulating health worries short term, it becomes increasingly maladaptive when repeated over time (Puri & Dimsdale, 2011).

The excessive reassurance-seeking of health anxious individuals and repeated failure to respond to interpersonal reassurance leads others to perceive them as fragile, needy, and difficult to reassure. Thus, this health-related reassurance-seeking is met with reactions of negativity, distancing, and alienation within interpersonal relationships (Waldinger, Schulz, Barsky, & Ahern, 2006). Such rejection further solidifies attachment insecurities and leads health anxious individuals to believe others do not take their health concerns seriously (MacSwain et al., 2009). In turn, perceptions of rejection by anxiously attached individuals may exacerbate health-related worry by triggering distress and unpleasantness associated with somatic sensations (Macdonald & Kingsbury, 2006). Significant others' withdrawal of support is interpreted by the anxiously attached individual as evidence of abandonment or punishment, and is linked with later exacerbation of health-related worries (Hilbert, Martin, Zech, Rauh, & Rief, 2010) that trigger a perceived need for further support from others. In acting out this characteristic interpersonal pattern, health anxious individuals increase the likelihood that others will react to them in undesired, rejecting ways (Williams, Smith, & Jordan, 2010).

In sum, the IMHA is an integrative model that provides an understanding of the characterological and interpersonal context within which health anxiety occurs. The cyclical, maladaptive patterns of behavior (health-related reassurance-seeking), cognition (health-related alienation), and affect (health-related worry) characteristic of health anxious individuals are said to arise from a hyperactivated insecure attachment system (MacSwain et al., 2009; Stuart & Noyes, 1999). These magnified attachment insecurities lead health anxious individuals to engage in health-related reassurance-seeking in an attempt to elicit support from others and manage their distress. This reassurance-seeking ultimately leads to rejection from others and the conviction that others are unconcerned about their health problems and unpredictable in their support. These beliefs of alienation further exacerbate health anxious individuals' worries about their health, resulting in continued health-related reassurance-seeking (MacSwain et al., 2009; Stuart & Noyes, 1999).

1.3. Objectives and hypotheses

1.3.1. Primary

This study's first objective was to test the IMHA. Testing this model brings greater clarity to our understanding of attachment styles and interpersonal processes in health anxiety. Though general insecure attachment has been tied to health anxiety (Noyes et al., 2003), the IMHA purports high levels of anxious attachment, in particular, are central to maladaptive interpersonal processes in health anxious individuals. Compared with secure and avoidant attachment styles, anxious attachment has been linked to greater worry about one's health (Schmidt, Strauss, & Braehler, 2002), outward displays of health concerns (e.g., healthcare use; Ciechanowski, Walker, Katon, & Russo, 2002), emotional expressivity (Armitage & Harris, 2006), and health-related reassurance-seeking intended to secure support from others (Stuart & Noyes, 1999). Unable to manage their distress alone, anxiously attached individuals express their concerns and seek reassurance despite fears of rejection, becoming dependent on others to help manage their health-related worries (Maunder & Hunter, 2009).

Consistent with the IMHA (see Fig. 1), significant paths were hypothesized from anxious attachment to variables believed to maintain health anxiety (i.e., health-related reassurance-seeking, alienation, and worry). In the interpersonal cycle, significant paths were also hypothesized from health-related reassurance-seeking to health-related alienation, from health-related alienation to health-related worry, and from health-related worry back to health-related reassurance-seeking.

1.3.2. Secondary

The second objective was to test the specificity of insecure attachment style in the IMHA. In particular, we examined if the model would differ when avoidant attachment replaced anxious attachment as the insecure attachment style central to the IMHA. Testing specificity is important for understanding the unique contribution of particular insecure attachment styles and interpersonal processes in this explanatory model of health anxiety.

As with an anxious attachment style, individuals high in avoidant attachment mistrust and expect rejection from others (Maunder & Hunter, 2009). However, in contrast to anxiously attached individuals, those with an avoidant attachment style are likely to deny or conceal their distress and avoid seeking reassurance for fear of distancing or alienating themselves from others (Feeney, 2000). Thus, we expected avoidant attachment to be *negatively* related to health-related reassurance-seeking and *positively* related to health-related alienation. A positive link was expected between avoidant attachment and health-related worry because insecurely attached individuals are likely to experience negative affect and report physical symptoms (Armitage & Harris, 2006; Ciechanowski et al., 2002).