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Panic attacks and physical health problems in a representative sample: Singular and interactive associations with psychological problems, and interpersonal and physical disability

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Abstract

Background: Panic attacks may be a risk marker for a variety of psychological problems and are associated with increased impairment in a host of domains. However, previous studies have not investigated the role of physical illness in the panic attack–disability relations, which is striking due to findings that physical illness is linked to both panic attacks and disability. The present investigation examined the singular and interactive effects of panic attacks and physical illness in relation to psychological, interpersonal, and physical types of impairment.

Method: Adult participants (4,745) recruited from the statewide Colorado Social Health Survey were administered the diagnostic interview schedule.

Results: As predicted, main effects of panic attacks and physical illness were significantly related to psychiatric comorbidity, depressive symptoms, interpersonal functioning, physical functioning, and perceived general health ($p < .05$ for all associations). Also as predicted, interaction of panic attacks and physical illness was significantly related to all of the outcome variables ($p < .05$ for all associations).

Conclusions: These findings suggest that individuals with both panic attacks and physical illness experience elevated disability across a variety of dimensions.

Keywords: Panic attacks; Anxiety; Interpersonal functioning; Psychiatric comorbidity; Physical functioning; Impairment; Disability

1. Introduction

Panic attacks, which reflect a discrete fear response that occurs at inappropriate or unexpected times (Barlow, 2002; Barlow, Brown, & Craske, 1994), play an important role in understanding various anxiety and other psychological disorders. For example, in addition to being a defining feature of panic disorder (American Psychiatric Association [APA], 1994), panic attacks are a risk marker for a relatively broad range of psychopathological conditions (Baillie & Rapee, 2005; Bittner et al., 2004; Goodwin & Hamilton, 2001). Other work suggests that panic attacks, even in

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non-clinical forms, can be personally distressing and elicit significant levels of disruption to various aspects of life functioning (Norton, Cox, & Malan, 1992).

The majority of panic attack research has explored associations between this factor and other psychiatric conditions and symptoms. Here, studies have found that panic attacks are associated with an increased risk of panic disorder as well as other anxiety disorders (Reed & Wittchen, 1998), major depressive disorder (Bittner et al., 2004; Kessler et al., 1998), substance use disorders (Baillie & Rapee, 2005; Cox, Norton, Swinson, & Endler, 1990), as well as psychotic disorders (Goodwin, Fergusson, & Horwood, 2004). Other work has indicated that individuals with non-clinical panic attacks (i.e., panic attacks but not panic disorder) report greater levels of anxiety and depressive symptoms compared with individuals without a history of such attacks, but lower levels than individuals with clinical conditions like panic disorder (Brown & Cash, 1990; Norton, Pidlubny, & Norton, 1999; Telch, Lucas, & Nelson, 1989; Telch, Shermis, & Lucas, 1989). These findings are consistent with data that show greater levels of anxious responding to somatic perturbation among individuals with non-clinical panic attacks compared to those without panic attacks (Zvolensky & Eifert, 2000). Although the specific mechanisms linking panic attacks to clinical conditions and psychological symptoms are not empirically clear, biopsychosocial models predict that panic attack episodes may enhance negative emotional learning to various sources of stress, especially physical sensations (Barlow, 2002; Bouton, Mineka, & Barlow, 2001).

There is significantly less known about the relations between panic attacks to physical health and impairment in functioning. Previous research has indicated that individuals with panic disorder experience lower quality of life, lower overall functioning, and greater risk for disability than controls (Kouzis & Eaton, 1997; Rubin et al., 2000); however, there is less research to date concerning (non-clinical) panic attacks and disability. Available, albeit limited, evidence indicates that panic attacks are related to disability across a number of life domains. For example, Birchall, Brandon, and Taub (2000) examined associations between panic attacks and disability among a large sample ($n = 2{,}000$) of patients from a general medical practice. Individuals with a lifetime history of panic attacks reported significantly poorer perceived health and greater physical impairment (e.g., difficulty lifting groceries) than persons without such a history (Birchall et al., 2000). Others have reported primary care patients with a history of panic attacks have greater levels of psychiatric comorbidity and more self-rated disability than persons without such a history, and additionally, do not differ from individuals with panic disorder (Katon et al., 1995). Extant work is nonetheless limited for a number of reasons. Perhaps most notably, studies have thus far not used sampling methods targeted at the population as a whole. Generalizability of existing work is therefore currently highly limited, and perhaps the observed effects are applicable to only these potentially more severe groups of individuals. Additionally, there has been a narrow range of disability variables thus far studied. For example, it is presently unclear what type of association panic attacks may share with impairment in interpersonal domains. It would be important for future work to assess for disability or impairment across psychological, physical, and interpersonal arenas in order to better contextualize the relation between panic attacks and potentially diverse forms of impairment.

Previous work also has not incorporated the role of physical health status in terms of understanding panic attack–disability relations. Such neglect is striking for at least two reasons. First, there is a relatively large body of research that suggests physical health problems (e.g., asthma) are related to panic attacks (Goodwin, Lewinsohn, & Seeley, 2004; Mrazek, Schuman, & Klinnert, 1998; Nejtek et al., 2001; Sareen, Cox, Clara, & Asmundson, 2005), and may play formative roles in the etiology of panic problems (Perna, Caldirola, & Bellodi, 2004). For example, the experience of having physical health problems can represent an important pathway by which individuals learn that bodily sensations are dangerous and personally threatening (Craske, Poulton, Tsao, & Plotkin, 2001). Consistent with this perspective, physical health disorders increase the likelihood of panic attacks (Kahn, Drusin, & Klein, 1987; Pine et al., 1994; Raj, Corvea, & Dagon, 1993) and are associated with more severe and unremitting panic attack symptoms (McCue & McCue, 1984; Schmidt & Telch, 1997). Second, physical health problems are a major source of various forms of personal disability. For example, greater numbers of both current and lifetime physical illnesses are associated with decreased physical functioning as well as lower perceptions of health and social functioning (Small et al., 1996). Other research has found physical health status predicts the size of social networks as well as job satisfaction, again, with greater number of illnesses being associated with poorer outcomes (Romney & Evans, 1996). Additionally, physical illness is related to poor psychological adjustment and functioning (Kisely & Goldberg, 1996). Collectively, data suggest that physical health problems are related to