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# Cognitive factors in panic disorder, agoraphobic avoidance and agoraphobia

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**Abstract**

There remains a lack of consensus regarding the possibility that especially high levels of panic-related cognitions characterise panic disorder with agoraphobia. We administered the Anxiety Sensitivity Index, the Agoraphobic Cognitions Questionnaire and the Anxious Thoughts and Tendencies Scale as well as measures of agoraphobic avoidance to patients diagnosed with panic disorder with agoraphobia ($n = 75$) and without agoraphobia ($n = 26$). Patients with panic disorder with agoraphobia did not score significantly higher on any of the cognitive variables than did panic disorder patients without agoraphobia. However, most of the cognitive variables showed small to moderate-strength correlations with self-report measures of agoraphobic avoidance. Our findings suggest that anxiety sensitivity, catastrophising of the consequences of panic and a general anxiety-prone cognitive style, although to some extent associated with agoraphobic avoidance, do not discriminate panic disorder with agoraphobia from panic disorder without agoraphobia.


*Keywords:* Panic disorder; Agoraphobia; Agoraphobic avoidance; Cognitions; Anxiety sensitivity; Catastrophising

## Introduction

Agoraphobic avoidance commonly accompanies panic disorder (PD). According to DSM-IV (American Psychiatric Association, 1994), individuals with PD with agoraphobia (PDA) avoid situations in which a panic attack may occur, or endure such situations with distress. However, it is not quite clear why some people with PD go on to develop agoraphobia, whereas others do not.

Cognitive accounts of PD have gained widespread acceptance in recent years (e.g., Clark, 1986). To what degree these cognitive models can be extended to also explain PDA is not certain. In this study, we have focused on three such models, which postulate the following cognitive factors: anxiety sensitivity (AS; Reiss,

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Peterson, Gursky, & McNally, 1986), catastrophic appraisals of panic sensations (Clark, 1986) and a general anxiety-prone cognitive style (Ganellen, Matuzas, Uhlenhuth, Glass, & Easton, 1986).

Elevated levels of AS, the tendency to fear anxiety-related sensations (McNally, 2002), have been considered to be a risk factor for developing PD (Reiss, 1991). In addition, high levels of AS, perhaps higher than those that are associated with PD, might predispose individuals with PD to develop agoraphobia (Hayward & Wilson, 2007). Thus, a prominent fear of anxiety-related sensations may lead people to be cautious about entering situations in which panic attacks have previously occurred and which they believe may trigger such sensations and feelings. This may then lead to avoidance of these situations.

The few studies that have compared AS between PD and PDA patients have generally not found any differences between these groups. Schmidt and Koselka (2000) reported that AS was not associated with a diagnosis of agoraphobia. Likewise, Cox, Endler, and Swinson (1995) did not find AS scores to be significantly different between PD and PDA patients.

When agoraphobia was assessed dimensionally, as agoraphobic avoidance, most studies found that there was a moderate to large association between high levels of AS and high levels of agoraphobic avoidance (e.g., Ehlers, 1995; Schmidt & Koselka, 2000; White, Brown, Somers, & Barlow, 2006; Wilson & Hayward, 2006; Zvolensky, Kotov, Antipova, & Schmidt, 2003). White et al. found a significant main effect of AS in predicting both self-reported and clinician-rated agoraphobic avoidance. The study by Schmidt and Koselka found AS to be significantly correlated with Mobility Inventory (MI; Chambless, Caputo, Jasin, Gracely, & Williams, 1985) scores and with scores on the Agoraphobia scale of the Fear Questionnaire (Marks & Matthews, 1979). In contrast, McNally and Lorenz (1987) did not find a significant association between AS and agoraphobic avoidance scores.

Aside from AS, the way that individuals appraise anxiety- and panic-related symptoms may increase the risk of developing agoraphobia, over and above the risk of developing PD. Clark (1986) originally postulated a catastrophic misinterpretation model as an explanation for the development of PD. Among individuals with PD, those who are particularly prone to catastrophising the consequences of panic sensations (e.g., in terms of having a life-threatening physical disease, losing control or experiencing embarrassment) may be reluctant to be in situations where panic attacks are expected to occur. Such reluctance may then lead to agoraphobic avoidance.

As with AS and agoraphobia, research findings have not consistently supported the link between catastrophising and agoraphobia. A number of studies (Amering et al., 1997; Noyes, Clancy, & Garvey, 1987; Starcevic, Kellner, Uhlenhuth, & Pathak, 1993) indicate that patients with PDA catastrophise the consequences of symptoms more than those with PD. Using the Panic Appraisal Inventory (PAI; Telch, 1987), Starcevic et al. (1993) reported that patients with PDA had greater physical, social and loss of control concerns about their symptoms than those with PD, but the difference did not reach statistical significance for social concerns when patients with mild agoraphobia were compared with PD patients. Noyes et al. found that a fear of dying or of going crazy from symptoms was most prominent in PD patients with extensive avoidance, followed by PD patients with minimal avoidance and then followed by non-avoiding PD patients. Amering et al. found that embarrassment experienced during the first-ever panic attack was particularly associated with subsequent agoraphobia. Two studies (Fleming & Faulk, 1989; Telch, Brouillard, Telch, Agras, & Taylor, 1989) have suggested that fear of the perceived social consequences, but not of the perceived physical consequences of panic, is more prominent in PDA than in PD. However, Fleming and Faulk found that only one item of the Loss of Control subscale of the Agoraphobic Cognitions Questionnaire (ACQ; Chambless, Caputo, Bright, & Gallagher, 1984) accounted for the overall difference on this subscale between PD and PDA, whilst Telch et al. found PD and PDA groups to differ only on the PAI, but not on the ACQ. Using the ACQ, Chambless and Gracely (1989) did not find PD and PDA patients to differ in the extent of catastrophising of panic symptoms.

When the degree of agoraphobic avoidance, rather than a diagnosis of agoraphobia, is considered, the literature appears somewhat more consistent. The majority of studies suggest that the tendency to catastrophise symptoms has a moderate to large degree of association with higher levels of agoraphobic avoidance (e.g., Chambless, 1985; Chambless et al., 1984; Chambless & Gracely, 1989; Hoffart, Hackmann, & Sexton, 2006; Poulton & Andrews, 1996; Warren, Zgourides, & Jones, 1989). Two exceptions to these findings are those of Casey, Oei, Newcombe, and Kenardy (2004), and of McNally and Lorenz (1987).