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Worry in Later Life

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Synonyms

Anxiety; Generalized anxiety; Older adults; Prospection

Definition

Worry features chains of negatively valenced thoughts about potential future events and can be conceptualized as a future-oriented cognitive process aimed at minimizing the likelihood or impact of disadvantageous future outcomes in the face of uncertainty (Borkovec et al. 1983; Dugas et al. 1998; Miloyan et al. 2015a; Szabó and Lovibond 2002).

Introduction

In its normal state, worry facilitates the detection and management of potential future threats and can also serve as a cognitive coping mechanism

for the suppression of negative anxious affect (Borkovec et al. 1998; Eysenck 1992). In its extreme state, it represents the central feature of generalized anxiety disorder (GAD) and is a source of considerable distress and disability (Andrews et al. 2010; Ruscio et al. 2005). There are age-related differences in the manifestation of worry that may have an important bearing on efforts aimed at conceptualizing late-life anxiety and promoting the mental health of older adults.

General Worry Processes

Worry features sequences of thoughts concerning potential negative future events (Borkovec et al. 1998). These thoughts are frequently associated with physiological arousal, thereby capturing present attention and alerting the individual to threats or potential problems with uncertain outcomes (Dugas et al. 1997; Hallion et al. 2014; Ruscio and Borkovec 2004; Tallis and Eysenck 1994; York et al. 1987). Those who engage in excessive worry orient to potential problems more readily than those with more moderate worry (Davey 1994; Dugas et al. 1995; Ladouceur et al. 1998). As a result, extreme worry is usually associated with a greater propensity to produce false alarms in the process of threat detection (Bateson et al. 2011; Nesse 2001, 2005).

Worry persists, most frequently in a verbal representational format, as the individual

attempts to solve or resolve a perceived threat (Borkovec and Roemer 1995; Freeston et al. 1994; Hirsch and Mathews 2012; Leigh and Hirsch 2011; Williams et al. 2014). However, problem-solving ability does not differ significantly as a function of worry frequency (Davey 1994; Dugas et al. 1995; Ladouceur et al. 1998). Worry may also serve as a cognitive avoidance strategy for dealing with aversive anxiety about perceived threats, in part because verbal representations of imagined events may suppress emotional experience (D'Argembeau and Van Der Linden 2006) and because future-oriented thoughts can facilitate planning and preparation, leading to lower levels of arousal and stress based on subjective and physiological markers (Borkovec and Roemer 1995; Borkovec et al. 2004; Engert et al. 2014; Freeston et al. 1994; Laguna et al. 2004; Miloyan et al. 2015a; Ruby et al. 2013). Worry can also assist people to come to terms with inescapable problems. For example, individuals who worry prior to encountering a fearful stimulus have lower arousal when confronted with that stimulus relative to non-worriers (Borkovec and Hu 1990).

Worries tend to be generalized and abstract, likely due to the fact that the future is inherently uncertain and harbors the potential for myriad threats (Stöber and Borkovec 2002; Miloyan et al. 2015a). In fact, uncertainty itself is a strong causal and maintaining factor of worry (Dugas et al. 1998). Worry-prone individuals often demonstrate a pessimism bias, characterized by heightened expectations of negative future outcomes (Mathews et al. 1997; Miloyan et al. 2014c). Repetitive thinking about future threats, a characteristic feature of worry (Watkins 2008), may lead to increased likelihood estimates for negative future outcomes (Szpunar and Schacter 2013). Importantly, even in its pathological form, worry is not associated with a reduction of positive future expectancies (MacLeod and Byrne 1996; Miloyan et al. 2014c; Miranda et al. 2008; Miranda and Mennin 2007). Alongside appraising a possible future threat, the worrying individual can also come to appraise the state of his/her own cognition about that threat, in a so-called

“metacognitive” worry process (Wells 1995). This may manifest as beliefs about one’s own cognition, such as “my worries are uncontrollable” or “worrying helps me avoid negative outcomes,” and may result in individuals “worrying about their worrying” in a vicious cycle that may represent a key feature of pathological worrying (i.e., GAD) (e.g., Wells 1995).

Age-Related Differences

We now turn our attention to age-related differences in the manifestation of worry, in terms of its *phenomenology* and constituent *processes*.

Phenomenology. There is a progressive age-related downward trend in worry frequency such that older adults report fewer worries than younger adults. Such a trend has been observed in cross-sectional studies, with nationally representative samples from the USA, the UK, and Australia, as well as in community studies conducted in Canada and the USA (Basevitz et al. 2008; Gonçalves and Byrne 2013; Gould and Edelstein 2010; Hunt et al. 2003; Lindsay et al. 2006; Miloyan and Pachana 2015; Powers et al. 1992). Similar downward trends have been observed for anxiety symptoms more generally (Deer and Calamari 1998; Böttche et al. 2012; Frueh et al. 2004; Gretarsdottir et al. 2004; Miloyan et al. 2014a). However, older adults with higher levels of anxiety and depression worry comparatively more relative to age-matched controls, suggesting that there are important differences within the population of older adults (Conaghan and Davidson 2002; Gonçalves and Byrne 2013; Wetherell et al. 2003; Diefenbach et al. 2001).

Furthermore, there are age-related differences in worry content. For instance, older adults tend to worry about their own health as well as the health and welfare of loved ones, in contrast to younger adults who tend to worry about work, finances, and interpersonal relations (Gonçalves and Byrne 2013; Powers et al. 1992). Older adults also tend to worry *more* about particular topics than younger adults, including “family concerns” and world issues such as environmental degradation and economic downturn (Hunt et al. 2003).

These “world issue” worries typically center outwardly on problems that could be faced by future generations, which may be of particular relevance during this developmental life stage (Hunt et al. 2003). In fact, late-life developmental transitions have been associated with other context-specific worries, such as about becoming a burden after transitioning out of a primary caregiver role and into retirement (Skarborn and Nicki, 2000; Wetherell 2006). Caregiving, too, can be a significant source of worry, anxiety, and distress in later life (Anthony-Bergstone et al. 1988; Lim et al. 2014; Razani et al. 2014). Additionally, older adults who endorse financial worries tend to be concerned about receiving care and about their own capacity to make decisions (Litwin and Meir 2013). However, despite the observation that older adults with GAD tend to endorse a greater variety of worries than matched non-GAD controls, there are fewer differences in worry phenomenology between older adults with and without GAD than there are between younger adults with and without GAD (Diefenbach et al. 2001; Miloyan et al. 2014b). In sum, the expression of worry may vary significantly as a function of the developmental stage of the individual, with older adults endorsing worries commensurate with their changing life circumstances (Wolitzky-Taylor et al. 2010).

Processes. Memory systems play a critical role in anxiety-related future-oriented cognitive processes such as worry (for review, see Miloyan et al. 2014c). With a capacity for semantic memory, one can draw on conceptual information with which to construct mental representations of future scenarios; and with a capacity for episodic memory, one can integrate autobiographical information into conceptual schemas in a future-directed manner (Irish and Piguet 2013; Suddendorf and Corballis 2007; Szpunar et al. 2014). As individuals age, they report fewer semantic and episodic details when recalling past and generating future scenarios, and this reduction in details correlates with age-related neurological differences (for review, see Schacter et al. 2013). In other words, older adults tend to engage in highly generalized future thinking, such that these thoughts contain

relatively few concrete details. Thus, general age-related reductions in worry frequency may be partly attributable to such neurocognitive changes, which lead to the construction of fewer and more generalized future-oriented thoughts, regardless of their emotional content.

However, observations of age-related reductions in worry frequency must also be assimilated with concomitant improvements in emotional well-being and the tendency of older adults to focus less on negative than positive stimuli (Bauer et al. 2013; Carstensen et al. 2011; Mather and Carstensen 2005). In fact, age-related reductions in worry frequency are also partly attributable to changes in emotional processes, considering that older adults experience more positive and fewer negative emotional states (Carstensen et al. 2011; Sutin et al. 2013). Additionally, negative emotional states are more transient for older versus younger adults, due in part to an improved capacity for emotion regulation (Carstensen 2006; Hay and Diehl 2011; Urry and Gross 2010). Thus, older adults come to experience fewer negative states and consequently worry less about the occurrence of negative future events, because one’s current emotional state can have a profound impact on the content of future-oriented thoughts (Miloyan et al. 2014c).

Finally, age-related differences in metacognitive beliefs and attitudes about worry may also be invoked to explain age-related reductions in worry frequency. Compared to younger adults, older adults believe less in the functional value of worry and report being more tolerant of uncertainty (Basevitz et al. 2008). As a result, older adults may be less likely to worry in order to detect potential future threats and would also be less prone to worrying about the potential occurrence of negative future events that lie outside of their control. Despite these general age-related trends, there are important differences within the population of older adults, such that those who report comparatively higher levels of worry tend to harbor negative attitudes and beliefs about the future, as well as an external locus of control (i.e., that the future holds negative outcomes in store and that these potentialities

lie largely outside of the individual's control) (Montorio et al. 2006; Powers et al. 1992). In sum, the manifestation of worry in later life is dependent upon cognitive, affective, and motivational processes. The way in which these processes change with age has practical implications for clinical approaches to worry in older adults – to which we now turn.

Clinical Implications

Despite worry potentially providing short-term avoidance of unpleasant anxiety (Borkovec 1994), its role as a coping mechanism may be maladaptive in the long term (Borkovec et al. 2004). In its pathological state, worry is the central feature of generalized anxiety disorder (GAD) and is frequently associated with severe distress and functional disability (Lee et al. 2010). Uncontrollable worry, a key feature of GAD, is particularly associated with distress, disability, and poor clinical outcomes (Hallion and Ruscio 2013). Older adults with GAD report higher levels of disability, lower levels of well-being, poorer health-related quality of life, and increased use of healthcare relative to asymptomatic older adults and younger adults with GAD (Brenes et al. 2008; de Beurs et al. 1999; Porensky et al. 2009; Wetherell et al. 2004). Older adults with GAD also have poorer cognitive functioning, which can improve with treatment, and even healthy older adults with mild worry symptoms show greater declines in learning and memory at two-year follow-up relative to asymptomatic controls (Butters et al. 2011; Pietrzak et al. 2012).

Worry may be associated with poorer cardiovascular health, as well as other somatic complaints and conditions (Brosschot et al. 2006, 2007; Brosschot and van der Doef 2006; Pieper et al. 2007). In older adults, GAD has a higher prevalence among individuals with cardiovascular health problems, and higher levels of worry may be associated with a higher risk for incident coronary heart disease (Grenier et al. 2011a; Kubzansky et al. 1997). Late-life GAD may also

be associated with a higher risk of incident gastrointestinal disease (El-Gabalawy et al. 2014).

Worry, in its normal or pathological form, may also be preceded by some medical conditions; for instance, arthritis is associated with increased risk for incident GAD among older adults (El-Gabalawy et al. 2014). There are less pronounced differences in worry frequency and health characteristics between older – as compared to younger – adults reporting high and moderate worry, indicating that the relationship between worry, health, and functional outcomes also varies with age (de Beurs et al. 1999; Grenier et al. 2011b; Miloyan et al. 2014b, 2015b). Finally, GAD is highly prevalent among older adults in the context of primary care (Ansseau et al. 2008; Kroenke et al. 2007).

The impact of age on the presentation of worry occurs in a number of different ways, with implications for diagnosis and treatment of GAD. First, due in large part to age-related cognitive and emotional changes, older adults report fewer and less concrete worries (Basevitz et al. 2008; Hunt et al. 2003; Gonçalves and Byrne 2013; Gould and Edelstein 2010; Miloyan and Pachana 2015). Second, older adults with cognitive impairment may have particular difficulty reporting or identifying their worries in concrete terms (Beaudreau and O'Hara 2008; Wolitzky-Taylor et al. 2010). For example, in the context of neurocognitive impairment, it is possible for stressors to evoke bouts of negative affect without leaving strong mnemonic traces as to their origins (Feinstein et al. 2010; Guzman-Vélez et al. 2014). This could be particularly problematic given that informant report is ineffective for identifying unobservable symptoms such as worry among cognitively impaired older adults (McDade-Montez et al. 2008). Finally, among older adults, physical symptoms exacerbate the emotional and functional impact of worry (Miloyan and Pachana 2015). The need for age-appropriate assessment strategies is being increasingly recognized on the basis of such findings (Wolitzky-Taylor et al. 2010). Existing CBT and psychosocial interventions for late-life GAD are at best moderately efficacious, suggesting the need for improved interventions for excessive

worry in older adults (Gonçalves and Byrne 2012; Thorp et al. 2009). However, it is also important to note that some degree of worry could be advantageous. For instance, lower levels of anxiety may be associated with excess mortality; and specifically, those who endorse greater worries about particular health problems may be more likely to seek medical care and take preventative or corrective action (Chapman and Coups 2006; Edward Ransford 1986; Hay et al. 2006; Lee et al. 2006; Mykletun et al. 2009; but see Consedine et al. 2004; Dijkstra and Brosschot 2003).

Conclusion

Worry consists of sequences of thoughts about negative future events and is aimed at minimizing the likelihood and impact of negative outcomes. Worry fundamentally relies on an individual's present emotional state, characterized by negatively valenced affect, and a capacity for future-oriented cognition. Thus, relative to asymptomatic individuals, worriers fixate more on threat-related stimuli, mentally generate a greater number of negative future events, and harbor increased expectations for the occurrence of future threat-related events. Older adults worry less than younger adults, due to reductions in the frequency of imagined future events, the experience of more positively valenced and fewer negatively valenced emotional states, and differences in attitudes and beliefs about worry. There are also important differences in the content of worry across the lifespan, with developmental transitions in later life presenting new challenges about which older adults may be particularly prone to worry.

In its pathological state, worry is associated with increased distress and disability. Among older adults, relatively fewer worry symptoms are associated with distress and disability, partly due to the increased prevalence of physical symptoms. Pathological worry has also been linked to a number of negative health effects, particularly with regard to self-rated health, cardiovascular health, and quality of life. However, despite the

key role worry plays in psychopathology, it also acts as a functional mechanism that could serve to reduce the likelihood or impact of future harm and may thereby be strategically (though not necessarily volitionally) employed. Nonetheless, chronic and uncontrollable worry frequently leads to poor psychosocial outcomes over extended time frames, making it an important target for intervention in later life.

Cross-References

- ▶ [Anxiety Disorders in Later Life](#)
- ▶ [Cognitive Control and Self-Regulation](#)
- ▶ [Emotion-Cognition Interactions](#)
- ▶ [Mental Health and Aging](#)

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