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Research paper

More adaptive versus less maladaptive coping: What is more predictive of symptom severity? Development of a new scale to investigate coping profiles across different psychopathological syndromes

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ABSTRACT

Background: Lack of adaptive and enhanced maladaptive coping with stress and negative emotions are implicated in many psychopathological disorders. We describe the development of a new scale to investigate the relative contribution of different coping styles to psychopathology in a large population sample. We hypothesized that the magnitude of the supposed positive correlation between maladaptive coping and psychopathology would be stronger than the supposed negative correlation between adaptive coping and psychopathology. We also examined whether distinct coping style patterns emerge for different psychopathological syndromes.

Methods: A total of 2200 individuals from the general population participated in an online survey. The Patient Health Questionnaire-9 (PHQ-9), the Obsessive-Compulsive Inventory revised (OCI-R) and the Paranoia Checklist were administered along with a novel instrument called Maladaptive and Adaptive Coping Styles (MAX) questionnaire. Participants were reassessed six months later.

Results: MAX consists of three dimensions representing adaptive coping, maladaptive coping and avoidance. Across all psychopathological syndromes, similar response patterns emerged. Maladaptive coping was more strongly related to psychopathology than adaptive coping both cross-sectionally and longitudinally. The overall number of coping styles adopted by an individual predicted greater psychopathology. Mediation analysis suggests that a mild positive relationship between adaptive and certain maladaptive styles (emotional suppression) partially accounts for the attenuated relationship between adaptive coping and depressive symptoms.

Limitations: Results should be replicated in a clinical population.

Conclusions: Results suggest that maladaptive and adaptive coping styles are not reciprocal. Reducing maladaptive coping seems to be more important for outcome than enhancing adaptive coping. The study supports transdiagnostic approaches advocating that maladaptive coping is a common factor across different psychopathologies.

1. Introduction

Apart from genetic (Kendler et al., 1995) and environmental factors (e.g., job loss, poor social network; Musliner et al., 2015), maladaptive coping and lack of adaptive coping styles[3] in stressful situations have long been implicated in the pathogenesis of different psychological disorders. For example, dysfunctional coping patterns have been identified in depression (Hori et al., 2014; Mahmoud et al., 2012; Xu et al., 2013), pathological gambling (Getty et al., 2000), anxiety (Mahmoud et al., 2012) and psychotic symptoms (Lincoln et al., 2015; Lysaker et al., 2005; Phillips et al., 2009). Whereas maladaptive strategies (e.g., rumination and suppression; Aldao et al., 2010) seem helpful in the short term but are detrimental in the long run, adaptive coping strategies such as problem solving and reappraisal are thought to prevent and reduce harm and emotional problems both in the short and long run. Novel studies suggest that different coping styles are associated

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[3] For linguistic reasons we will continue to speak about maladaptive and adaptive coping styles but would like to emphasize that the expressions "putatively maladaptive" or "putatively adaptive" may be more appropriate as the (dys)functionality largely depends on context and whether shorter or longer time periods are examined (see also Section 4).

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with certain genetic variations (Aizawa et al., 2015) which may partly explain why some maladaptive coping styles are resistant to change.

Owing to the fact that many researchers have focused on single coping or emotion regulation styles, for example, rumination (Nolen-Hoeksema et al., 2008), and have not until more recently looked at the entire spectrum (for more comprehensive accounts see for example Mohr et al., 2014), there is presently no clear answer to the question which coping and emotion regulation styles contribute to the pathogenesis of specific mental disorders.

In the present study, the term "coping" is used instead of the more contemporary construct "emotion regulation" as the questionnaire that is central to the present paper (see below) measures both "dealing with feeling" (emotion regulation) and "dealing with stressful events".

As Zimmer-Gembeck et al. (2014) highlight, coping with stress is intimately linked to emotion regulation, and some researchers (Kopp, 1989) have used emotion regulation almost synonymously with coping. Coping is aimed at regulating emotional experiences by changing one's response to a stressful event or by changing the situation that elicited the response (Compas et al., in press). Moreover, research on emotion regulation often relies on instruments designed to capture coping (see meta-analytic review by Aldao et al., 2010) and the study of emotion regulation is rooted in the literature on coping, particularly emotion-focused coping (Aldao et al., 2015).

Therapeutic approaches focus on different emotion regulation and coping styles, respectively, and also differ in the extent to which maladaptive styles are disputed and replaced by alternative ones. Traditional concepts of CBT have stressed the importance of reducing cognitive errors and biases (Beck and Haigh, 2014). Recent CBT-oriented approaches (Nolen-Hoeksema et al., 2008; Papageorgiou and Wells, 2004; Wells and Papageorgiou, 2004) particularly highlight the role of rumination. A number of theorists ascribe the control and suppression of emotions and thoughts a "toxic" role for the pathogenesis of different mental disorders (Ehring et al., 2010; Fisher and Wells, 2009; Morrison and Wells, 2003; Wells, 2012). Other approaches, such as mindfulness (Didonna, 2009; Khoury et al., 2013; Klainin-Yobas et al., 2012; Querstret and Cropley, 2013) and acceptance-oriented treatments (A-Tjak et al., 2015; Hayes et al., 1999), as well as "positive psychology" (Bolier et al., 2013; Seligman, 2002) set the focus on teaching patients new adaptive ways of coping with stress. For the latter type of treatment, the reduction of maladaptive strategies is rather implicit and is seen as a byproduct of teaching adaptive skills.

Adaptive and maladaptive coping styles are not necessarily reciprocal (i.e., weakly correlated dimensions rather than opposite ends of a single dimension). Therefore, it is surprising that research has only just begun to look at the relation of different coping styles concurrently. According to Aldao and Nolen-Hoeksema (2012a; 2010), adaptive emotion regulation strategies (e.g., acceptance or reappraisal) show weaker associations with psychopathology than maladaptive strategies (e.g., worry and rumination). For the present study, we constructed a new scale covering different aspects of adaptive and maladaptive coping derived from the literature. Unlike most other coping instruments the scale consisted of pairs of opposite items (e.g., "I quickly imagine the worst" versus "I try to imagine a happy ending") which allowed us to better contrast adaptive versus maladaptive forms of coping. We also aimed to develop a short yet comprehensive scale covering the most prominent coping styles.

The main purpose of the study was to test the psychometric properties (dimensional structure, retest reliability) of our newly developed instrument. In this framework, three main hypotheses and questions were examined in a large sample ($N=2200$) drawn from the general population.

First, in line with Aldao and Nolen-Hoeksema (2012a), we hypothesized that maladaptive coping would be more strongly associated with psychopathology than adaptive coping both cross-sectionally and longitudinally (participants were reassessed six months later).

Secondly, we examined whether different psychopathologies – depression, obsessive-compulsive disorder and paranoia – are associated with different coping patterns, as it has been criticized that most studies investigate only a single mental disorder (Aldao, 2013). While some studies suggest that different psychopathologies share similar coping styles (Aldao and Nolen-Hoeksema, 2010), others elucidated distinct profiles (Aldao et al., 2010). Thirdly, in view of recent evidence that people use more than one strategy to manage a stressful situation, including the emotion elicited by that situation (Aldao and Nolen-Hoeksema, 2013), we investigated whether exercising more coping styles per se would be associated with a higher or lower degree of psychopathology, for example, using more coping styles could be indicative of a more flexible repertoire which has been linked to better well-being; however, a greater range of coping styles may also foster greater emotional turmoil.

2. Method

2.1. Participants

The study was conducted with the help of WisoPanel, a German online service providing scientists with the opportunity to advertise non-commercial studies (for the reliability of this and related services see Göritz 2007; Judge et al., 2006; Piccolo and Colquitt, 2006).

No financial compensation was offered to participants. Instead, a PDF-manual containing mindfulness and relaxation exercises was provided as a reward at the end of the survey (different version than used in Moritz et al., 2014). The research was carried out in accordance with the Declaration of Helsinki. All participants had provided informed consent before participation.

A total of 12087 individuals from the general population are registered with WisoPanel. They were invited to participate in an online survey which was set up using unipark/questback® (Globalpark AG). Of these, 2321 participants completed the questionnaire. Prior to the analysis, we discarded 121 participants who were outside the age range for this study (18–70 years of age) or whose response pattern indicated that they did not comply with the study instructions as they entered the same value at least 36 out of 38 times (maximum) throughout the obsessive-compulsive and paranoia scales (see below; each time either the score 2, 3, 4 or 5). In the end, 2200 participants were considered for the final analyses.

After six months, we sent an invitation for a follow-up study to registered members of WisoPanel; 1109 participants who fulfilled the above inclusion criteria took part in both the baseline and follow-up assessment (six months later).

2.2. Measures

2.2.1. Psychopathology

We administered three psychopathological scales both at baseline and at follow-up to assess the severity of (subclinical) depression, obsessive-compulsive symptoms and paranoia.

Depression was assessed using the *Patient Health Questionnaire-9* (PHQ-9; Hautzinger and Bailer, 1993; Kroenke et al., 2001; Radloff, 1977). The PHQ-9 is a self-report instrument derived