



Personality dimensions and disorders and coping with the COVID-19 pandemic

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Purpose of review

The COVID-19 pandemic has tested people's coping and resilience. This article reviews research and scholarly work aiming to shed more light on personality-based factors that account for adjustment to the pandemic situation.

Recent findings

Most studies relied on a cross-sectional design and were conducted using personality dimensions based on the Big Five personality model. Findings suggest that high levels of neuroticism constitute a risk for pandemic-induced distress and poor overall coping. People with prominent extraversion, conscientiousness or agreeableness have generally demonstrated a good adjustment to the pandemic, including compliance with containment and mitigation measures imposed by the authorities to limit the spread of COVID-19. A few studies of individuals with borderline personality disorder identified social isolation as the most destabilising factor for them. Poor compliance with containment and mitigation measures has been strongly associated with various antisocial personality traits.

Summary

Personality-based factors account for some individual differences in coping with both COVID-19-related threat and distress and requirements to comply with containment and mitigation measures. Better understanding of these factors could contribute to a more effective adjustment to the challenges of future public health crises.

Keywords

coping, COVID-19, personality, personality dimensions, personality disorders

INTRODUCTION

The COVID-19 pandemic has been a challenging event for governments and people around the world. Not only has the illness directly threatened the population globally, but the measures put in place to control the pandemic and mitigate its effects (e.g., physical distancing rules and lockdowns) have often been met with bewilderment, disapproval or active resistance. Therefore, coping with the COVID-19 pandemic has entailed addressing both various COVID-19-related fears and concerns and responding to containment and mitigation measures.

Ability to cope with adversity is largely related to personality structure and coping with multiple aspects of the COVID-19 pandemic is likely to be related to the specific personality characteristics. This article will focus on the relationships between personality dimensions, traits and disorders on one hand and COVID-19 pandemic-related variables on the other.

PERSONALITY DIMENSIONS AND COVID-19 PANDEMIC

Numerous studies have examined the relationships between various personality dimensions and coping with the COVID-19 pandemic. Most research has used the Big Five theoretical model of personality [1], consisting of the following dimensions: extraversion, neuroticism (sometimes referred to as emotional stability or emotional instability),

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KEY POINTS

- Effective coping with the COVID-19 pandemic has required flexibility to adjust to rapidly changing circumstances and given that individuals with maladaptive personality traits and certain personality disorders lack such flexibility, they have generally been ill-suited to adapt optimally to the pandemic.
- People with high levels of neuroticism have been more likely to experience pandemic-induced distress and demonstrate poor overall coping.
- People with prominent extraversion, conscientiousness or agreeableness have generally demonstrated a good adjustment to the pandemic, including compliance with containment and mitigation measures imposed to limit the spread of COVID-19.
- Social isolation may be the most destabilising pandemic-related factor for individuals with borderline personality disorder, whereas antisocial personality traits have been strongly associated with poor compliance with containment and mitigation measures.
- Personality-based factors account for some individual differences in coping with COVID-19-related challenges and their better understanding is likely to improve preparations for public health emergencies in the future.

conscientiousness, agreeableness and openness to experience. Some studies also examined facets of these personality dimensions (e.g., the energy level facet of extraversion, the depression facet of neuroticism, the responsibility facet of conscientiousness, the trust facet of agreeableness and the intellectual curiosity facet of openness to experience).

Extraversion

Considering that extraversion is characterised by a high need for social interactions, it is not surprising that studies found associations between higher levels of extraversion and decreased willingness to comply with some of the COVID-19 pandemic-related containment and mitigation measures, especially physical distancing [2] and staying-at-home requirements [3]. Severely limited opportunities for socialising during the pandemic have also contributed to higher levels of distress among extraverted people [4]. However, extraverts have not been necessarily more likely to break the rules as a result of their need for socialising. Indeed, other research painted a more complex picture of the adaptation of extraverted people to the COVID-19 pandemic. For example, Aschwanden *et al.* [5[■]] reported that higher levels of extraversion were related to a more

optimistic estimate of the duration of the pandemic along with a greater caution and more preparatory behaviours such as stockpiling of goods deemed necessary during the pandemic. Moreover, another study suggested that greater extraversion signalled a better adaptation to the pandemic, arguably via greater resilience [6]. Overall, individuals with high levels of extraversion may have had a relatively good adjustment to the COVID-19 pandemic if their natural propensity towards social interactions is kept under control to minimise the risk of becoming infected or spreading the infection.

Neuroticism

Neuroticism refers to a tendency to experience a variety of negative emotions and to be more vulnerable to stress. Given the threatening and immensely disruptive nature of the COVID-19 pandemic, people with higher levels of neuroticism were more likely to have greater concerns about the infection [4,5[■],6], perceive themselves as less effective [4], feel more pessimistic when estimating the duration of the pandemic [5[■]] and show worse adaptation to the lockdown [6] and less resilience [7]. The findings regarding compliance of individuals with prominent neuroticism with containment and mitigation measures have been somewhat mixed. While some studies reported a relationship between high levels of neuroticism and greater health precautions such as staying-at-home behaviour [3], physical distancing and hygiene behaviours [8,9], one study found associations with fewer precautions and fewer preparatory behaviours, which was largely driven by the depression facet on neuroticism [5[■]]. Overall, it appears that individuals with high levels of neuroticism have not only been particularly distressed by the pandemic, but that their coping with the pandemic may not have been optimal.

Conscientiousness

Conscientiousness is a highly relevant personality dimension for the public health emergency situations such as pandemic because of its links with self-control, ability to organise oneself and plan, social responsibility, compliance with social norms and commitment to duty. During the COVID-19 pandemic, high levels of conscientiousness have been associated with the willingness to comply with containment and mitigation measures, i.e., various precautions to avoid the infection [5[■],10,11], including physical distancing and practicing good hygiene [2,8,9], as well as staying-at-home requirement [3]. People with prominent conscientiousness also felt more effective in their efforts to limit the spread of

COVID-19 [4]. Findings about the relationship between conscientiousness and preparatory behaviours were mixed. While one study reported that individuals with high levels of conscientiousness tended to stockpile more toilet paper [12], other research demonstrated that they were not likely to engage in preparatory behaviours, possibly as a result of feeling greater responsibility for others and having more concerns about the community [5[•]]. Overall, high levels of conscientiousness seem to have had a high adaptive value in the context of the pandemic, especially with regards to various containment and mitigation measures.

Agreeableness

People with high levels of agreeableness usually cooperate well with others and get along with them because of their general tendency to trust people and empathise with them, while genuinely taking into account their views. Not surprisingly, agreeableness was a predictor of favourable responses to the COVID-19 pandemic [13^{••}] and in one study it was the only Big Five personality dimension that was associated with greater compliance with containment and mitigation measures [14]. In the context of the COVID-19 pandemic, a combination of prominent agreeableness and high level of conscientiousness has been found to result in a socially desirable behaviour from a public health perspective, fostering compliance with various containment and mitigation measures [3,9]. However, one study showed a negative association between agreeableness and physical distancing [8], possibly because a strong positive orientation to relationships was not compatible with a pandemic-imposed requirement to (temporarily) maintain distance from others. Overall, high levels of agreeableness may have promoted a good adjustment to the pandemic, especially in those domains that require working together with others to control the spread of the infection.

Openness to experience

Openness to experience is also relevant for pandemics because people with high levels of this personality dimension tend to be inquisitive and sceptical, espouse unusual ideas, exhibit unconventional behaviours and may be more prone to risk taking. As such, they are generally nonconformist and not ideally suited to following public health orders and complying with containment and mitigation measures during pandemics. However, high levels of openness to experience were associated with general compliance with containment and mitigation

measures during the COVID-19 pandemic [9–11,13^{••}]. This may be due to different strengths of the relationships that various facets of openness to experience have with different indicators of adaptation to the pandemic. For example, the intellectual curiosity facet of openness to experience may relate differently to the willingness to comply with containment and mitigation measures from the creative imagination facet. Overall, preliminary evidence suggests that high levels of openness to experience have not interfered with adaptation to the pandemic, especially with regards to compliance with containment and mitigation measures.

HOW MUCH OF COPING WITH THE COVID-19 PANDEMIC IS EXPLAINED BY PERSONALITY DIMENSIONS?

Various personality dimensions do not exist in isolation; rather, they interact with each other and with other variables, which may determine the overall adaptation to the pandemic. Therefore, it is important to have a better picture of the role played by personality in the adjustment to the COVID-19 pandemic and ascertain to what extent personality variables can explain behaviour during the pandemic and coping with it.

A study from Germany conducted in a large and representative sample has directly addressed the role of personality as a predictor of coping with the COVID-19 pandemic [13^{••}]. This study avoided some shortcomings of previous research by using a prospective design and assessing four distinct responses to the pandemic: perception of the risk of becoming infected, behavioural changes designed to prevent the spread of the infection (i.e., containment and mitigation measures), beliefs in the effectiveness of containment and mitigation measures and trust in the authorities and institutions responsible for implementation of these measures. The findings suggested that personality variables accounted only for a small portion of the variance (0.6–3.8%) in these four responses to the pandemic. Despite this, the overall predictive ability of the personality was still considered relevant, especially because other variables (sex, educational level and risk-group membership) explained a similar portion of the variance [13^{••}].

Another German study found greater effects of personality dimensions on COVID-19-related variables compared to the effects of demographic factors such as gender and age [15]. Similarly, a Canadian study reported that almost all demographic factors were only indirectly linked to pandemic coping variables via personality dimensions [16]. A British study involving almost 380,000 people found

medium-size associations between personality traits and measures of mental health impact of the COVID-19 pandemic, which was lower than associations reported for age, occupation and home and work circumstances [17[■]]. Regardless of the exact size of their impact, personality-level differences in response to the pandemic seem to be important, calling for further research.

PERSONALITY DISORDERS AND COVID-19 PANDEMIC

Personality disorders during the COVID-19 pandemic have received much less attention than personality dimensions. This is somewhat surprising, considering a large number of studies examining the relationships between various other aspects of psychopathology and coping with the COVID-19 pandemic. However, a greater emphasis on personality dimensions may reflect a general move away from personality disorders as categorical constructs to personality dimensions.

A paper by Preti *et al.* [18[■]] provided hypotheses about the ways in which pandemics in general might affect people with various personality disorders and suggested that responses by these people might depend on the specific type of personality disorder. Thus, individuals with the DSM Cluster A personality disorders, especially those with paranoid personality disorder, might be more likely to espouse various COVID-19-related conspiracy theories and thereby interfere with efforts to effectively cope with the pandemic. People with the DSM Cluster B personality disorders might demonstrate risky behaviours and lack of compliance with containment and mitigation measures due to their impulsivity, while those with the DSM Cluster C personality disorders might react with more anxiety and distress and perhaps be more likely to comply with containment and mitigation measures and potentially experience heightened interpersonal difficulties as a result of their rigidity or excessive reliance on others. These hypotheses have not been tested during the COVID-19 pandemic.

A few studies have focused on the changes experienced by individuals with borderline personality disorder during the COVID-19 pandemic. One naturalistic, exploratory study of 55 patients with borderline personality disorder from Spain reported that living alone was the ‘most relevant’ predictor of a poorer clinical course over a period of 2.5 months during the pandemic [19]. The authors speculated that an imposed social isolation during the pandemic combined with the feeling of loneliness and sensitivity to feeling abandoned as one of the hallmarks of borderline personality disorder made it more

difficult for borderline individuals to be on their own and cope with the challenges of the pandemic. Similarly, a case report of a Malaysian patient with borderline personality disorder during the pandemic identified a heightened fear of abandonment, along with a more prominent feeling of emptiness, as emotionally most destabilising factors [20].

Loneliness became a more prominent problem for both 40 patients with borderline personality disorder and 30 patients with avoidant personality disorder during the first several months of the COVID-19 pandemic in Norway [21]. In addition, these borderline patients exhibited more self-injurious behaviours, higher use of emergency services, more aggression and more substance use, when compared to patients with avoidant personality disorder. Interestingly, a proportion of borderline patients exhibited the opposite pattern during the pandemic, reporting fewer symptoms and more energy [21].

An online Polish study of 720 individuals from the general population examined people who did not believe in the existence of COVID-19 and found that these ‘nonbelievers’ were more likely to show characteristics of borderline personality organisation and use maladaptive defence mechanisms, especially splitting [22].

Antisocial personality disorder, antisocial personality traits and antisocial behaviours have received some research attention during the COVID-19 pandemic, mainly because of the concern that such personality constellation might interfere with efforts to limit the spread of the infection. Indeed, a study from Brazil involving 1578 participants found that some of the key traits of antisocial personality disorder, such as low levels of empathy and high levels of callousness, deceitfulness and risk-taking were strongly and directly associated with decreased compliance with COVID-19 containment and mitigation measures [23]. Similarly, an online study of 131 individuals from the United States reported that those with prominent antisocial traits engaged in behaviours that had a potential to enhance the spread of COVID-19, i.e., they were less likely to follow physical distancing rules [24].

A few studies have investigated the relationships between compliance with COVID-19 containment and mitigation measures and the Dark Triad personality traits, which are conceptually related to antisocial personality disorder and more broadly, the DSM Cluster B personality disorders. The Dark Triad comprises psychopathy (e.g., callousness and remorselessness), Machiavellianism (e.g., manipulativeness and exploitation of others) and narcissism (e.g., grandiosity and lack of empathy). Predictably, all or some components of the Dark Triad have been strongly associated with a decreased willingness to

comply with efforts to limit the spread of COVID-19 largely because of the requirement to accept personal restrictions [9,11,14], although some findings were equivocal in this regard [15].

CONCLUSION

Coping with the COVID-19 pandemic has required both an adequate appraisal of the threat posed by COVID-19 itself and working together with other members of the society to limit the spread of the infection. These efforts largely depend on people's flexibility to adjust to rapidly changing circumstances. Given their general lack of flexibility, especially in an interpersonal domain, individuals with certain personality disorders and those with prominent maladaptive personality dimensions such as neuroticism may have a particular difficulty adapting to the pandemic. Studies conducted to date have supported this notion, notwithstanding their methodological limitations and a paucity of research focused on personality disorders. Further investigations of personality variables and personality disorders during public health crises are important because they are likely to improve our understanding of the specific personality-based liabilities for coping with such crises. Ultimately, this knowledge could have relevance for public health policy and contribute to more effective ways of preparing for public health emergencies in the future.

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Conflicts of interest

There are no conflicts of interest.

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- of special interest
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