

# ATTACHMENT THEORY AND PSYCHOLOGICAL RESPONSES TO THE COVID-19 PANDEMIC: A NARRATIVE REVIEW

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## SUMMARY

The novel coronavirus disease (COVID-19) pandemic has had a significant impact on the psychological health of individuals and societies. A theoretical framework is required in order to understand this impact and strategies to mitigate it. In this paper, individual and community responses to COVID-19 are discussed from the point of view of attachment theory, a psychological theory which examines the formation and disruption of attachment bonds across the life-span from an evolutionary perspective. The contributions of this perspective to individual psychological disorders such as anxiety, depression and post-traumatic stress, as well as to social responses such as interpersonal violence and stigmatization, are discussed in the light of findings from attachment research. Proposals for incorporating the knowledge derived from attachment theory into therapeutic strategies, as well as in developing community resilience in the face of COVID-19, are discussed based on the available evidence. It is hoped that this information will be of value to clinicians and researchers, as well as to those involved in planning health services and social policy.

**Key words:** COVID-19 infection - attachment theory - occupational health - health psychology - psychoneuroimmunology

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## INTRODUCTION

The novel coronavirus disease (COVID-19) pandemic is a global health crisis, with over 2,800,000 cases and nearly 200,000 deaths reported to date (April 27<sup>th</sup>, 2020). Besides its immediate impact on patients themselves and on the healthcare system, this pandemic has the potential to adversely affect the mental health of millions of people (Bao et al. 2020). Because of this, some authors have already termed the COVID-19 pandemic a “public mental health crisis” (Dong & Bouey 2020) and have pointed out the need for making mental health services easily accessible in these times, while keeping in mind the restrictions necessitated to minimize contagion (Pfefferbaum & North 2020).

There is already a growing body of literature on the mental health impact of COVID-19 on different populations, in terms of symptoms of anxiety, depression or post-traumatic stress (Qiu et al. 2020, Zhang et al. 2020). While such descriptive research provides valuable information on the scope of the problem, a strong theoretical framework is required in order to interpret these findings appropriately and develop preventive and therapeutic strategies. In this light, it has been suggested that the knowledge of, and application of, psychodynamic concepts could play a crucial role in mitigating the psychological impact of the COVID-19 pandemic and in building resilience (Marcinko et al. 2020).

It is the aim of this paper to build on the work of Marcinko et al. (2020) by providing a brief overview of attachment theory and its applications insofar as they are relevant to the COVID-19 pandemic. Attachment theory, developed by John Bowlby (Bowlby 1988) is a

variant of object-relations theory which aims to study human socio-emotional development in the light of the attachment bond between children and their primary caregivers, which can be categorized as either secure or insecure. Insecure attachment can further be categorized as avoidant, anxious or disorganized, based on specific behavioural responses and patterns observed in a given child (Vrticka & Vuilleumier 2012, Cassidy et al. 2013).

Though Bowlby's initial formulation was derived from ethology and viewed protection as the primary purpose of attachment behaviour (Bowlby 1969), later researchers in the field have refined and developed the theory further and highlighted the key role of attachment in childhood social adjustment (Psouni et al. 2015, Nobleaga et al. 2019), peer relationships and friendships (Pallini et al. 2014), social skill development (Dykas & Cassidy 2011, Cassidy et al. 2013, Shaver et al. 2019), satisfaction in marital relationships (Shaver et al. 2019), moral development (Govrin 2014), emotion regulation (Rholes et al. 1999), day-to-day social functioning (Sheinbaum et al. 2015) and resilience (Juang et al. 2018). These effects are mediated through the formation of internal representations (or “internal working models” to use Bowlby's term) of significant others and responses to them, and the cellular and neural mechanisms of these processes are slowly being elucidated (Vrticka & Vuilleumier 2012).

Moreover, as Bowlby himself pointed out, the importance of attachment does not end in early childhood or with a primary caregiver. Rather, relationships with other family members, peers, friends and spouses play an important role in mental health and well-being even in adolescence and adulthood (Bowlby 1969, Vrticka &

Vuilleumier 2012). These may be understood in terms of “affectional systems” that correlate with particular “maturational stages” in the individual’s life cycle, and can be traced to some extent even in primates (Harlow & Harlow 1965, Bowlby 1969). These “affectional systems” can counterbalance the effects of a deficit in attachment in an early stage; for example, constructive responses from a partner or spouse can reduce attachment insecurity in adults (Simpson & Overall 2014). Similarly, psychotherapy, including group psychotherapy, may positively modify the effects of an earlier insecure attachment (Flores 2010, Slade & Holmes 2019). In other words, attachment theory should not be understood in a narrow sense, as confined only to the study of bonding between a young child and his primary caregiver; rather, it should be understood as encompassing the making and breaking of affectional bonds at various stages of the life cycle, as well as the biological (Vrticka & Vuilleumier 2012) and socio-cultural (Keller 2018) mechanisms that influence the formation and maintenance of these bonds.

In the rest of this paper, the relevance of attachment theory to various aspects of the COVID-19 pandemic is reviewed under two broad headings: first, effects on the mental health and well-being of individuals, and second, broader social phenomena, especially maladaptive ones, which can be understood using an attachment framework. Finally, a brief summary of the implications of these findings for therapy and prevention is provided.

## **ATTACHMENT THEORY AND INDIVIDUAL MENTAL HEALTH AND WELL-BEING**

### **Anxiety, depression, and post-traumatic stress**

Symptoms of anxiety and depression are the commonest reported responses to the COVID-19 outbreak to date (Qiu et al. 2020, Wang et al. 2020). Not coincidentally, anxiety and depression are also integral parts of the human response to separation, real or threatened, from attachment figures (Bowlby 1988). Attachment behaviour can be activated by illness (Bowlby 1969), and insecure attachment has been linked to higher levels of health anxiety (Reiser et al. 2019), which is an important predictor of maladaptive responses to disease outbreaks (Asmundson & Taylor 2020). There is already preliminary evidence from an Italian study that specific aspects of attachment style are associated with an increased risk of psychological distress in response to the COVID-19 outbreak (Moccia et al. 2020), suggesting that this may be an important risk or protective factor in individual cases. Similarly, symptoms of post-traumatic stress (PTSS) have been reported in 7% of the general population in a sample of Chinese adults exposed to the COVID-19 epidemic (Liu et al. 2020). They may be due to the direct effects of the disease, the measures required for its containment, or even indirectly through contact with those directly affected (Li et al. 2020). Recent re-

search has shown that insecure attachment is associated with an increased risk of developing PTSS, and that this can be influenced by the availability of, or lack of, social support (Marshall & Frazier 2019). This is consistent with the “extended role” for attachment theory proposed above, in which interpersonal relationships in adult life play a protective role against the development of psychological morbidity.

### **Child and adolescent mental health**

It is perhaps in this area that the applications of “classical” attachment theory, as originally formulated in Bowlby’s early texts, are most apparent. Emerging research from China has shown that the COVID-19 outbreak is associated with behavioural disturbances such as increased clinging to parents and irritability, both of which are signs of insecure attachment and indicate activation of the “attachment system” (Bowlby 1969) by an external threat. Significantly, these symptoms were more common in younger (age 3–6) children (Jiao et al. 2020). Such behaviours may be exacerbated by factors that reduce a child’s social contacts with family members and peers, such as school closure (Lee 2020) and home confinement (Liu et al. 2020). In more general terms, there are also early reports of increased levels of anxiety and depression in school-age children related to the outbreak (Xie et al. 2020), both of which are closely linked to attachment insecurities in this age group.

### **Beyond psychological morbidity: physical health and occupational functioning**

There is convincing evidence that attachment security, and the quality of interpersonal bonds, have a significant effect on physical health and occupational performance over and above their direct links to psychiatric disorders (Pietromonaco & Beck 2019, Virga et al. 2019). For example, insecure attachment can be associated with the reactivation of latent herpesvirus infection (Fagundes et al. 2014) and with impairment of cellular immunity, which may be partially mediated through increased cortisol secretion (Jaremka et al. 2013). Given that psychological variables such as stress have been associated with increased rates of viral respiratory infections (Pedersen et al. 2010), such findings may be of more than theoretical significance, and may directly influence the immune response to COVID-19.

From the perspective of functioning, attachment-related anxiety has been related to an increased risk of burnout and poor job performance in employees in general (Virga et al. 2019), and more specifically to reduced happiness and empathy in medical and nursing students (Khodabakhsh 2012, Moghadam et al. 2016). These results suggest that deficits in interpersonal bonds may affect not just the mental health of healthcare workers, but their ability to deliver care effectively. This is particularly important given that healthcare workers are at increased risk of psychological morbidity during

disease outbreaks (Zhang et al. 2020), as they are directly or indirectly exposed to the effects of the disease as well as to fear of infection, increased workloads, and reduced contact with their families – the last point being of direct relevance from an attachment theory perspective (Kang et al. 2020).

## **ATTACHMENT THEORIES AND BROADER SOCIAL ISSUES**

### **Domestic violence**

Violence in the family, directed towards spouses, children or both, is a complex social problem. Nevertheless, there is evidence to suggest that attachment insecurity is related to a poor quality of relationships in adult life, which increases the risk for domestic violence (Sonkin et al. 2019). This phenomenon was discussed in depth by Bowlby as being related to the phenomenon of anxious attachment, as well as to exposure to violence during the abuser's childhood. Anxious attachment is characterized by high levels of anxiety and anger, which can manifest as violence both in children and in adults (Bowlby 1988; ch.5, "Violence in the family"). The effects of anxious attachment are amplified by isolation and a lack of social support, which are themselves augmented by extraordinary measures imposed to curtail the spread of COVID-19, such as lockdowns and home confinement (van Gelder et al. 2020). Handling this problem is exacerbated by the fact that access to regular channels of help may be difficult during a disease outbreak (Usher et al. 2020).

### **Stigmatization, racism and social isolation**

As has been noted by Bowlby (1969), the "attachment system" can be activated, not only by separation from an attachment figure, but by conditions such as fatigue, pain, illness, hunger, and alarming situations in the environment. Research has shown that when faced with a threat, such activation occurs even in adults. Attachment anxiety has been related to fear of those seen as "outsiders", attachment insecurity to distancing from them, and both have been linked to prejudice. On the other hand, attachment security reduces prejudice and negative appraisals of those perceived as being "outside" one's social group (Mikulincer & Shaver 2001, Carnelley & Boag 2019). Such attitudes towards outsiders have been invoked to explain social phenomena such as racial prejudice (Dalal 2006); more speculatively, insecure attachment has been linked to political ideologies characterized by extremist attitudes towards "outsiders" (Kurth 2014). Given that the response to the COVID-19 pandemic has been plagued by attitudes such as stigmatization and xenophobia in some places (Marcinko et al. 2020), such considerations have a significance that is more than theoretical.

In this light, it is also possible to understand how measures such as social distancing, curfews and home isolation – even if necessary to contain the spread of

COVID-19 – can heighten attachment anxiety and insecurity, with consequences that have been summarized above. In crises where the risk of infection was minimal, such as natural disasters, attachment and solidarity among survivors – including a willingness to help strangers and outsiders – have been reported, with beneficial effects for individuals as well as the community (Bartolucci & Magni 2017). In this context, it is worth noting that people with higher reported levels of social capital – a measure of trust, belonging and participation in one's community – reported less anxiety, stress and disturbed sleep in response to the COVID-19 outbreak (Xiao et al. 2020). Such individual benefits could have a positive or protective effect against the adverse social effects of the pandemic.

## **THERAPEUTIC AND PREVENTIVE CONSIDERATIONS**

### **Psychotherapeutic strategies**

Slade and Holmes have identified three key principles of attachment-based psychotherapy: the need for a bond between the therapist and patient, the recognition of attachment dynamics (insecure patterns of attachment and their associated behaviours) in the client, and the use of the therapist-patient relationship to reshape these dynamics (Slade & Holmes 2019). Applying these principles to a situation such as the COVID-19 outbreak requires a working knowledge of attachment theory as it pertains to individuals at different developmental stages and in different situations, as well as the link between attachment insecurity and symptoms of anxiety, depression and post-traumatic stress (Blakely & Dziadosz 2015). However, this would also require attention to specific social and cultural factors which influence attachment behaviour (Umemura & Traphagan 2015, Keller 2018) in order to avoid interventions that would be seen as inappropriate or insensitive. Though applicable to all age groups, such an approach would be of particular relevance in working with children and adolescents, in which parents and other caregivers can be recruited as co-therapists with the goal of strengthening the child's "secure base" and reducing anxiety, depression and anger (Boris & Renk 2017).

A further point may be raised in this context. The limitations on direct person-to-person contact during the COVID-19 outbreak have led to an enthusiasm for remote methods of consultation, sometimes referred to as telepsychiatry (Cosic et al. 2020). While these approaches are highly promising, they are subject to two important limitations, both of which make sense from an attachment perspective. First, the use of remote technologies for communication may, to a certain extent, undermine rather than facilitate interpersonal interactions. This has been attributed to an "evolutionary mismatch" between technology and the mechanisms that facilitate the development of attachment bonds (Sbarra et al. 2019). In principle, this could interfere with the

attachment dynamics that play a crucial role in psychotherapy (Slade & Holmes 2019). Second, they may not be accepted by persons who are already experiencing social isolation. For instance, a mental health programme for healthcare workers based on online and telephone communications in a Chinese hospital handling COVID-19 patients met with resistance and reluctance from the staff themselves, leading to the programme being revised to include periodic visits from a counsellor, as well as attention to physical needs such as fatigue and hunger. This revised programme, which was much “sunder” from an attachment perspective, resulted in greater staff satisfaction (Chen et al. 2020). Thus, while a telepsychiatry-based approach might be of immense benefit in some cases, it may be less efficacious in situations where disturbed attachment, or activation of the “attachment system” by an external trigger, plays an important role. Such a limitation would not apply to the use of technology to provide information about the COVID-19 outbreak, or to maintaining contact with friends and relatives (Yip & Chau 2020).

### Building community resilience

As can be seen from some of the issues raised as mentioned above, an approach informed by attachment theory could be useful in measures designed to promote adaptive behaviours and foster positive relationships among members of communities affected by COVID-19, and to minimize stigmatization. For example, personal contacts and positive interactions should be fostered insofar as they do not interfere with necessary preventive measures (Chen et al. 2020). If direct contact is not possible, maintaining connections with loved ones electronically could play a similar protective role (Yip & Chau 2020). Befriending interventions may also play a role in maintaining attachment security (Gillath et al. 2017). Those involved in high-risk occupations, such as healthcare workers, should be allowed to spend time maintaining interpersonal contacts and relationships alongside their scheduled work (Ratner et al. 2020). In an indirect manner, attention to basic physical needs such as food and shelter could prevent excessive or inappropriate activation of the “attachment system”. A similar effect could be obtained by regulating the alarming effects of media coverage that is exaggerated or false (Garfin et al. 2020). Such services should especially be made accessible to those most vulnerable to the effects of disrupted interpersonal bonds, such as the elderly, the socially isolated, and those facing economic hardship related to the COVID-19 crisis. Such strategies need to be integrated with other psychological approaches, including those derived from cognitive and behavioural schools of psychology in order to minimize maladaptive reactions such as panic and paranoid ideation (Ho et al. 2020), which can lead to the social problems discussed in section 3.2. Such a perspective would be of use not only to therapists but to policy-makers and those in civil authority as well.

## CONCLUSION

The above review briefly explores the various facets of attachment theory that are relevant to the psychological impact of the COVID-19 outbreak at the individual and societal levels. The conclusions presented here must be viewed as provisional, as they have not been formally tested in such situations, though they are supported to some extent by anecdotal evidence from earlier disease outbreaks (Chew et al. 2020). It must also be emphasized that the application of attachment theory to the COVID-19 crisis is by no means a panacea; rather, perspectives and techniques derived from attachment research can inform and complement other social and psychological models, serving as one facet of a biopsychosocial response to this global crisis. It is hoped that the information presented in this paper will be of use to therapists and researchers engaged in handling the psychological impact of COVID-19, and will lead to further refinement of the ideas discussed herein.

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