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Fear during crises: the roles of perceived risk, appraisal support and identity resilience

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ABSTRACT

Emotions, such as fear, are important determinants of people's responses to crises. Fear can be functional or dysfunctional. There is limited research into the influences determining fear levels during crises. This study examines the extent to which variance in fear levels can be accounted for by perceived risk, perceived appraisal support, identity resilience, and perceived job insecurity. Cross-sectional correlational survey data were collected from 294 adults in the United Kingdom during the height of the COVID-19 pandemic in July 2020. Structural equation modelling showed a direct positive effect of perceived risk of COVID-19 on COVID-19 fear and an indirect effect through perceived job insecurity. There was no direct effect of perceived appraisal support upon COVID-19 fear but there were indirect effects: perceived appraisal support was negatively associated with perceived job insecurity which in turn was positively associated with COVID-19 fear; and perceived appraisal support was positively associated with identity resilience which in turn was negatively associated with COVID-19 fear. Women reported higher perceived appraisal support than men. The current study indicates that to model the antecedents of fear in public crises it is useful, in addition to socio-demographics, to build in perceived risk and corollaries of the original hazard (e.g. perceived job insecurity), identity processes, and access to interpersonal support.

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Perceived risk; fear; perceived appraisal support; identity resilience; perceived job insecurity; COVID-19

Introduction

Emotions aroused in public crises are significant in determining people's responses to interventions aimed at public protection (Breakwell and Wright 2024). Fear, particularly, is important since, depending upon its level, it can be functional (e.g. motivating rational self-protection) (Harper et al. 2021) or dysfunctional (e.g. resulting in denial) (Lee et al. 2020). Yet, fear, even in moderate levels, can be harmful for psychological well-being (Fitzpatrick et al. 2020). There have been many studies of the effects of fear in crises (Kirschner 2014; Usher et al. 2020; Utych et al. 2022). There have been fewer focused upon the influences determining levels of fear.

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Optimizing strategies for managing oneself and others in public crises relies in part upon understanding the factors that can promote or assuage fear and thus influence behavior and coping. The level and form of fear experienced and its impact upon individuals' responses to a crisis vary greatly. Empirically identifying the factors that shape individual differences in fear responses in public crises may support the design and deployment of innovative interventions in such situations. Societal preparedness for public crises can be enhanced by developing a better understanding of the factors influencing fear levels during public crises.

The specific purpose of this study is to test how far variation of fear levels in a major health crisis can be accounted for by two factors:

- Perceived risk from the crisis. This factor has two facets: the overall level of risk and the risk of specific negative consequences. Both facets may separately and in tandem influence fear levels. Perceived risk was expected to be positively correlated with fear.
- Current identity resilience (i.e., self-esteem, self-efficacy, continuity, and positive distinctiveness rooted in past experience). Identity resilience was expected to be negatively correlated with fear.

Both identity resilience and perceived risk during a crisis may be influenced by the availability of social support. This study tests the extent to which the perception of "appraisal support" is related to the assessment of a specific negative consequence in the crisis (i.e. job insecurity) and to the level of identity resilience. Through its impact upon these, perceived appraisal support was postulated to be an indirect influence upon fear levels.

The study, using cross-sectional survey data collected in July 2020 during the height of the COVID-19 pandemic from adults in the United Kingdom (UK), tests a model of the precursors of fear during a health crisis, which has not been empirically tested before. This model encompasses the roles of cognition, identity processes, and interpersonal support in accounting for variance in fear levels. Fear is only one feature of a spectrum of affect that is operating during a crisis. Further research that examines this spectrum would be valuable, particularly since the potential for fear to be functional may be influenced by the concurrent presence of other emotions.

Other studies conducted to examine COVID-19 fear at around this time in various countries have reported the significance of socio-economic variables (particularly gender) and health variables in explaining variability in COVID-19 fear (Alsharawy et al. 2021; Luo et al. 2021; Cerda and García 2022). Females report on average higher fear, so do people with greater existing health difficulties. The current study controls for gender effects but health variables are not considered. The emphasis here is upon examining the effects of perceived risk of COVID-19 and of perceived appraisal support upon COVID-19 fear directly and indirectly.

Fear during the COVID-19 pandemic

This study focuses specifically upon fear, which is defined as an unpleasant transient emotional state that is triggered by the individual's perception of a specific, clearly identifiable threatening stimulus (Gray 1987). Conversely, anxiety can be either a state or trait and tends to be aroused in response to an undefined diffuse perceived threat that may occur in the future (Kasper et al. 2003). Distinct measures have been developed to examine COVID-19 fear (e.g. Ahorsu et al. 2022) and anxiety in relation to COVID-19 (e.g. Silva et al. 2022), respectively. The measure used in the present study focuses on fear of the disease itself, rather than fear of contracting the disease. In that sense, the type of fear examined in this study is not considered to be functional or adaptive (see Harper et al. 2021).

COVID-19 may be one of the public crises most intensively examined by psychologists to date. Systematic reviews and meta-analyses show that fear of COVID-19 has been a key focus

of empirical studies conducted since the beginning of the pandemic (e.g. Luo et al. 2021; Quadros et al. 2021; Alimoradi et al. 2022; Wang et al. 2022). The extent of psychological research evidence accumulated on COVID-19 makes it ideal as a basis for beginning to build a generalizable model of the factors influencing the development and consequences of fear in public crises. Such a model ultimately must allow for the distinctive characteristics differentiating between public crises. For instance, COVID-19 was a global pandemic, unanticipated, with no vaccine initially available, and it continued for a long time before being declared no longer a public health emergency in May 2023. People had a lot to fear for an extended period, especially since the side-effects of actions to contain the disease generated their own hazards (e.g. social isolation, limitations on mobility, closure of social and work facilities, and economic upheaval associated with job insecurity). Fear of COVID-19 was not just a question of feeling afraid of the disease itself; it was also a product of being afraid of the wider implications of the disease (Mayhew and Anand 2020; Breakwell and Jaspal 2021; Jaspal et al. 2022). While acknowledging the distinctiveness of each crisis, the implications of the individual's fear levels are likely to be as important in building preparedness (Breakwell and Wright 2024).

Perceived risk, perceived job insecurity and fear

Perceived risk of COVID-19 is defined in this study as the individual's own appraisal of their likelihood of acquiring the infection (Jaspal, Fino, and Breakwell, 2022). Relationships between perceived risk of COVID-19 and aspects of fear have regularly been found, and it has also been argued that fear, in fact, constitutes a projection of inflated risk perceptions (Han et al. 2021). In a longitudinal study of university students in the US during the pandemic, Serpas and Ignacio (2022) found that perceived risk predicted greater fear. A mediation model showed that perceived risk was associated with anxiety (Yıldırım et al. 2022) and depression (Lu et al. 2024), both through the mediation of COVID-19 fear. In this study, fear of COVID-19 is examined not as a mediator but as an outcome. On the basis of extant research, it is predicted that there should be a direct positive effect of the perceived risk of COVID-19 upon COVID-19 fear.

Moderation analyses have shown that the impact of perceived risk of COVID-19 upon COVID-19 fear increases in the presence of stress (Baek et al. 2024). It is thus important to examine the potential sources of stress that might further explain the relationship between risk and fear. This study examines the potential mediating role of perceived job insecurity in the relationship between the perceived risk of COVID-19 and COVID-19 fear. Perceived job insecurity is defined specifically as the perception of threat to the continuity of one's employment. After all, actual threats to employment were heightened during the pandemic with businesses having to close, downsize, restructure and, in many cases, make redundancies (Mayhew and Anand 2020). It is important to note that our focus is not on the objective measure of job insecurity but rather on the individual's own perception of it.

In their systematic review of studies focusing on perceived job insecurity, Gupta and Dhar (2024) noted that health-related risks (such as perceived risk of COVID-19) precipitated perceptions of job insecurity, which in turn were associated with negative affect and decreased well-being. Perceived job insecurity during the pandemic was found to be associated with depression (Fan and Qian, 2023), an effect that was accentuated in people with higher COVID-19 fear (Gasparro et al. 2020). Perceived job insecurity was also shown to be associated with emotional exhaustion (Konkel and Heffernan 2021; Lin et al. 2021), distress (Blanuša et al. 2021), anxiety (Obrenovic et al. 2021), and suicide risk (Blomqvist et al. 2022) in the context of the pandemic. In their survey study of working people, Mahmoud et al. (2022) found that people with an external locus of control experienced more negative emotions associated with perceived job insecurity during COVID-19. In another study, Mahmoud et al. (2021) found that the perceived risk of COVID-19 was associated with burnout through the mediation of perceived job insecurity.

In short, a higher perceived likelihood of contracting COVID-19 should be associated with concerns about one's job security since the individual may reason that they are more likely to lose their job if they do become infected. More generally, a higher perceived risk of COVID-19 may reflect a more general anxious predisposition - including in relation to the continuity of one's employment (Bouyer et al. 2001). When a hazard not only threatens one's physical health but also one's livelihood, it will likely be construed as more fearsome. Perceived job insecurity due to the COVID-19 pandemic should, therefore, be associated with more negative affect (in this case, fear) in relation to the virus. On this basis, it is predicted that the perceived risk of COVID-19 will also be indirectly associated with COVID-19 fear through the mediation of perceived job insecurity.

Perceived appraisal support, perceived job insecurity, and fear

Much research during the pandemic focused on fear as a correlate of social support (e.g. Mahamid et al. 2023; Mauer et al. 2024). There is also research conducted during the pandemic that shows that higher social support is associated with better mental health outcomes (Jaspal and Breakwell 2022), as well as with lower negative affect, including decreased fear (Deniz and Ünal 2023). It is noteworthy, however, that social support has been defined in many different ways. For instance, Cohen et al. (1985) describe the following four distinct types of social support:

- *Belonging* refers to the perceived availability of others with whom one can spend time engaging in activities. This can also include identification with social groups.
- *Tangible support* is the perceived availability of others who can provide material aid if required.
- *Self-esteem support* refers to the perceived availability of people with whom one can make favorable self-comparisons that enhance self-esteem.
- *Appraisal support* reflects the perceived availability of someone with whom one can discuss one's problems.

This study focuses specifically on perceived appraisal support. It is noteworthy that we do not measure the objective availability of appraisal support but rather the individual's own perception of it. Kahn and Antonucci (1980) note the significance of affirmation from others in appraisal support. Emotional support (which is similar to appraisal support) has been found to be positively associated with psychological adjustment (Malecki and Demaray 2003). Van Steenberg et al. (2008, p. 353) posit that appraisal support can "provide individuals with the opportunity to increase their understanding of an ongoing or upcoming situation, to compare their appraisals with those of others, and to assess the appropriateness of their emotional responses."

In a similar vein, perceived appraisal support may enable people to reassess the meanings appended to COVID-19 as well as the threats it is purported to pose to aspects of their lives, including the continuity of employment. It is therefore plausible to hypothesize that perceived appraisal support (i.e. believing that one has somebody to confide in and seek emotional support from) should be associated with feeling less fearful of COVID-19. Similarly, perceived appraisal support should be associated with a lower perception of job insecurity since, in confiding in a supportive other, the individual may be able to share their concerns about the continuity of their employment, seek reassurance and possibly reconstrue the situation in ways that generate less fear.

Perceived appraisal support, identity resilience, and fear

In identity process theory (Breakwell, 2021, 2023; Breakwell, Fino, and Jaspal, 2022), identity resilience is conceptualized as the individual's perception that their identity is characterized by

higher overall combined levels of self-esteem, self-efficacy, continuity, and positive distinctiveness. Breakwell, Fino and Jaspal (2022, p. 167) define identity resilience as “one’s subjective belief in one’s capacity to interpret and overcome challenges as they occur, one’s self-worth and value, certainty of who one is and will remain despite individual and social changes that occur, and one’s self-construal as unique and positively distinctive.”

Identity resilience is a personal trait that develops across the life course and is underpinned by many different factors, including group memberships, education, exposure to cultures, religion, personality traits, intellectual capacity, and physical abilities. Correlations between social support and identity resilience have been found (Jaspal, Lopes, and Breakwell, 2023), suggesting that the more social support one has access to, the higher one’s identity resilience.

Perceived appraisal support may be an especially significant determinant of identity resilience. Indeed, in their study of 340 university students, Hurd et al. (2018) found that appraisal support specifically was indirectly and negatively associated with psychological distress *via* higher self-esteem, which is one component of identity resilience. Identity resilience can be seen as a product of perceiving appraisal support. Exchanging confidences with a trusted other may restore feelings of self-esteem in the face of negative self-appraisal, a sense of continuity amid change, feelings of competence when it is doubted, and a sense of positive differentiation from others. It is therefore predicted that higher perceived appraisal support will be associated with a higher sense of identity resilience.

Identity resilience also has an overarching beneficial effect, spurring adaptive cognition, affect and behavior. Breakwell (2021: 583–584) notes that identity resilience is associated with “adaptive and constructive cognitive, emotional and behavioural responses” and, more specifically, with “less negative emotional reactions to threat and to more proactive resistance to damaging identity change.” In several empirical studies, identity resilience has been found to be associated with less psychological adversity, such as identity threat, distress and depression, and with higher wellbeing outcomes, such as life satisfaction (Breakwell and Jaspal 2022; Jaspal 2024, 2025). It is also associated with the adoption of more adaptive, effective and sustainable coping strategies in the face of external hazards (Jaspal, Assi, and Maatouk 2022; Breakwell, Jaspal, and Wright 2023).

It is predicted that higher identity resilience will be associated with lower levels of COVID-19 fear for at least two reasons. First, fear is generally a negative emotional state that is symptomatic of distress (Gray 1987). Though potentially adaptive and conducive to self-protective behaviors in health crises, even moderate levels of fear can be harmful for psychological health (Fitzpatrick et al. 2020). Identity resilience activates strategies to mitigate harm to psychological health. Second, the measure of COVID-19 fear used in this study focuses specifically on fear of the disease itself rather than fear of contracting the disease. Fearing the disease is arguably less functional and adaptive since it is less likely to be associated with measures to self-protect than fearing infection. It should, therefore, be associated with lower levels of identity resilience.

Hypotheses

Based on existing research and identity process theory, the following hypotheses are tested regarding the relationships between perceived risk of COVID-19, perceived appraisal support, perceived job insecurity, identity resilience, and COVID-19 fear:

1. There will be a direct positive effect of perceived risk of COVID-19 upon COVID-19 fear.
2. There will be an indirect effect of perceived risk of COVID-19 upon COVID-19 fear through job insecurity. More specifically, perceived risk of COVID-19 will be positively associated with perceived job insecurity, which in turn will be positively associated with COVID-19 fear.

3. There will be a direct negative effect of perceived appraisal support upon COVID-19 fear.
4. There will be an indirect effect of perceived appraisal support upon COVID-19 fear through perceived job insecurity. Perceived appraisal support will be negatively associated with perceived job insecurity, which should be positively associated with COVID-19 fear.
5. There will be an indirect effect of perceived appraisal support upon COVID-19 through identity resilience. Perceived appraisal support will be positively associated with identity resilience, which in turn will be negatively associated with COVID-19 fear.

Method

Ethics

Nottingham Trent University's Schools of Business, Law and Social Sciences Ethics Committee provided ethical approval for this study (ref: 2020/191).

Design, procedure, and participants

A sample of 294 adults who had jobs and lived in the UK were recruited on Prolific (a participant recruitment platform, see <https://www.prolific.com/> for details) to participate in a cross-sectional survey study in July 2020. Participants provided demographic information, namely their age, gender, employment status and annual income. They then completed measures of perceived appraisal support, perceived risk of COVID-19, identity resilience, perceived job insecurity, and COVID-19 fear. The age range of participants was 18 to 70 years ($M=33.63$, $SD=11.67$). There were 103 (34.9%) men and 191 (64.7%) women in the sample. All 294 participants reported being in employment, including 32 (10.8%) who were self-employed and 24 (8.1%) who were "furloughed" under the UK government scheme during COVID-19.

Measures

Perceived appraisal support

The 4-item Appraisal Support Subscale of the Interpersonal Support Evaluation List (Cohen et al. 1985) was used to measure perceived appraisal support, that is, the perceived availability of somebody to talk to about one's problems. The scale included items, such as "When I need suggestions on how to deal with a personal problem, I know someone I can turn to" and "I feel that there is no one I can share my most private worries and fears with," which were measured on a 4-point scale (1=definitely false to 4=definitely true). A higher mean score indicates higher perceived appraisal support ($\alpha=0.77$).

Perceived risk of COVID-19

The 6-item COVID-19 Own Risk Appraisal Scale (CORAS) (Jaspal et al. 2022) was used to measure perceived risk of COVID-19 on a 5-point Likert scale with different response categories. The CORAS includes items, such as "What is your gut feeling about how likely you are to get infected with COVID-19?" and "I feel vulnerable to COVID-19 infection." A higher mean score indicates higher perceived risk of COVID-19 ($\alpha=0.84$).

Identity resilience

The 16-item Identity Resilience Index (Breakwell et al. 2022) was used to measure identity resilience on a 5-point Likert scale (1=strongly disagree to 5=strongly agree) and includes

items, such as “On the whole, I am satisfied with myself” and “My present is simply a continuation of the past.” A higher mean score indicates higher identity resilience ($\alpha=0.85$).

Perceived job insecurity

The item “I think I might lose my job in the near future due to COVID-19” was used to measure perceived job insecurity on a 5-point scale (1 = strongly disagree to 5 = strongly agree). A higher score indicates higher perceived job insecurity.

COVID-19 fear

An adapted version of the 10-item Fear of COVID-19 Scale (Ahorsu et al. 2022) was used to measure fear of COVID-19. The scale measures fear of the disease generally rather than specifically fear of contracting the disease. It was measured on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree) and includes items, such as “My hands become clammy when I think about COVID-19” and “I cannot sleep because I am worrying about COVID-19.” Some items were amended to include both positively and negatively worded items and thus reduce the risk of response bias. A higher mean score indicates higher fear of COVID-19 ($\alpha=0.83$).

Statistical approach

Preliminary analyses were performed using IBM SPSS Statistics Version 29. First, descriptive analyses were conducted to assess the means and standard deviations of the continuous variables. Second, Pearson correlations were performed to examine associations between the continuous variables. Third, independent samples *t*-tests were conducted to examine differences in the main variables by gender (0 = male vs. 1 = female). Finally, structural equation modeling with a bootstrap at 1000 samples was performed in IBM SPSS Amos Version 29 to assess the effects of perceived risk of COVID-19 and perceived appraisal support on the variance in COVID-19 directly and indirectly through the mediation of perceived job insecurity and identity resilience, with gender as a control variable.

Results

Descriptive statistics

Table 1 presents the means and standard deviations for the continuous variables measured in this study.

Correlations

Table 2 presents correlations between the continuous variables measured in this study. As there were no statistically significant correlations between age or income and the main variables measured in this study, they were not included as control variables in the model.

Table 1. Descriptive statistics.

Variables	<i>M (SD)</i>
1. Age	33.63 (11.67)
2. Perceived risk of COVID-19	3.04 (0.73)
3. Appraisal support	3.19 (0.66)
4. Identity resilience	3.35 (0.61)
5. Perceived job insecurity	2.24 (1.11)
6. COVID-19 fear	2.88 (0.65)

Differences in the main variables by gender

Independent samples *t*-tests bootstrapped at 1000 samples showed no statistically significant differences in perceived risk of COVID-19, identity resilience or COVID-19 fear ($p > 0.05$), but did show statistically significant differences in perceived appraisal support ($t[292] = -2.02, p = 0.041, \text{Cohen's } d = -0.25$) and perceived job insecurity ($t[292] = 1.98, p = 0.049, \text{Cohen's } d = 0.24$). Women ($M = 3.24, SD = 0.67$) reported higher perceived appraisal support than men ($M = 3.08, SD = 0.64$), and men ($M = 2.42, SD = 1.15$) reported higher perceived job insecurity than women ($M = 2.15, SD = 1.07$). Therefore, the effects of gender were controlled for in the model.

Structural equation modeling

Structural equation modeling (see Figure 1) was performed with a bootstrap at 1000 samples with the main predictors of perceived appraisal support and perceived risk of COVID-19 and the mediators of identity resilience and perceived job insecurity to predict the variance in COVID-19 fear, while controlling for the effects of gender (dummy coded: male = 0 vs. female = 1). Model fit was acceptable: $\chi^2(6, 294) = 10.37, p = 0.110$; Root Mean Square Error of Approximation (RSMEA) = 0.05; Tucker-Lewis Index (TLI) = 0.95; Confirmatory Factor Index (CFI) = 0.98.

Table 2. Correlations between continuous variables.

Variables	1	2	3	4	5	6
1. Age						
2. Income	0.10					
3. Perceived risk of COVID-19	-0.02	-0.01				
4. Appraisal support	-0.01	0.04	0.04			
5. Identity resilience	0.07	0.11	-0.10	0.37**		
6. Perceived job insecurity	0.09	0.03	0.18**	-0.15*	-0.15*	
7. COVID-19 fear	0.06	-0.06	0.57**	-0.05	-0.24**	0.22**

*Statistically significant at $p < 0.05$.

**Statistically significant at $p < 0.01$.

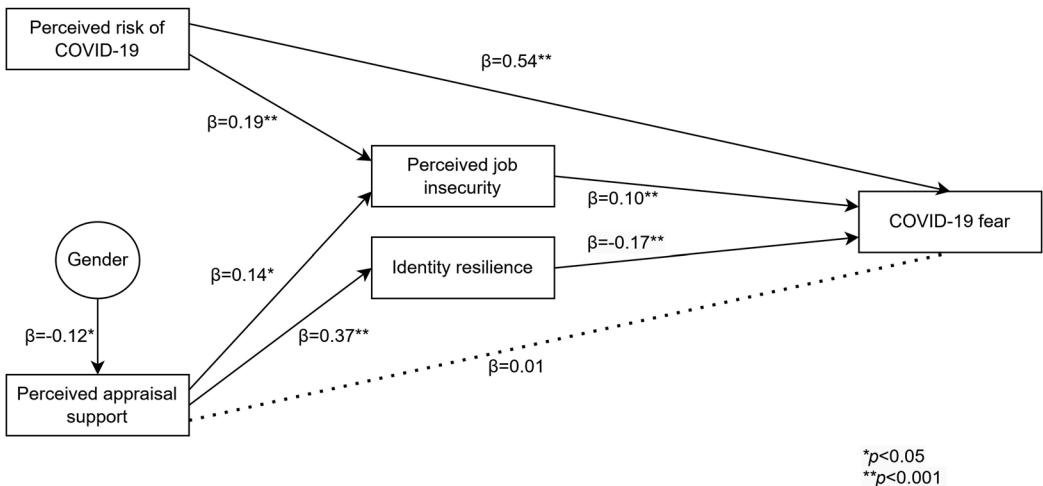


Figure 1. Structural equation model predicting COVID-19 fear.

First, gender was statistically significantly associated with perceived appraisal support ($\beta=0.12$, $S.E.=0.02$; $p=0.046$) but there were no statistically significant associations with perceived job insecurity ($\beta = -0.11$, $S.E.=0.13$; $p=0.065$).

Second, there was a statistically significant direct effect of perceived risk of COVID-19 on COVID-19 fear ($\beta=0.54$, $S.E. = 0.04$; $p<0.001$). Hypothesis 1 was supported. There were also mediation effects. Perceived risk of COVID-19 was positively associated with perceived job insecurity ($\beta=0.19$, $S.E.=0.09$; $p<0.001$), which in turn was statistically significantly and positively associated with COVID-19 fear ($\beta=0.10$, $S.E. = 0.03$; $p<0.001$). Hypothesis 2 was supported.

Third, there was no statistically significant direct effect of perceived appraisal support on COVID-19 fear ($\beta=0.01$, $S.E.=0.05$; $p=0.879$). Hypothesis 3 was not supported. However, there were mediation effects. Perceived appraisal support was statistically significantly and negatively associated with perceived job insecurity ($\beta = -0.14$, $S.E.=0.10$; $p=0.014$), which was then associated with COVID-19 fear. Hypothesis 4 was supported. Moreover, perceived appraisal support was statistically significantly and positively associated with identity resilience ($\beta=0.37$, $S.E.=0.05$; $p<0.001$), which in turn was negatively associated with COVID-19 fear ($\beta = -0.17$, $S.E.=0.05$; $p<0.001$). Hypothesis 5 was supported.

Discussion

Fear, though potentially adaptive and conducive to self-protective behaviors in health crises, can, even in moderate levels, be harmful for psychological health (Fitzpatrick et al. 2020). The findings shed light on the potential risk factors for experiencing higher levels of fear as well as the factors that may protect against it. Perceived risk of COVID-19 was directly and positively associated with COVID-19 fear and indirectly through the mediation of perceived job insecurity, supporting Hypotheses 1 and 2. Contrary to Hypothesis 3, no statistically significant direct effect of perceived appraisal support on COVID-19 fear was found. However, in support of Hypotheses 4 and 5, there was an indirect relationship between perceived appraisal support and COVID-19 fear *via* perceived job insecurity and identity resilience.

There is much evidence that perceived risk of exposure to a hazard is associated with feeling more fearful of the hazard itself. This has been demonstrated in various health crises, including Ebola, mpox and of course COVID-19 (Garfin et al. 2022; Serpas and Ignacio 2022; Walsh-Buhi et al. 2024). In our study, there was a direct positive effect of perceived risk of COVID-19 upon COVID-19 fear and this was by far the strongest predictor of COVID-19 fear in the model. However, there was also another pathway between perceived risk and COVID-19 fear *via* perceived job insecurity. This suggests that, when the individual feels that they are personally at risk of infection, they may also begin to experience concerns regarding the broader implications of infection, in this case the threat to the continuity of their employment. The hazard (in this study, COVID-19) may acquire additional meanings for the individual – as a threat not only to their health but also to their livelihood. The hazard may therefore be associated with greater fear in the individual. There has been some research showing the negative implications of both perceived risk and perceived job insecurity for wellbeing and occupational outcomes (e.g. Mahmoud et al. 2021) but none specifically upon the effects upon fear. This study fills this important lacuna.

It is important to note that we did not use an objective measure of job insecurity – there was no objective evidence to support the individual's own perception of job insecurity. This is entirely subjective, which may explain the negative effect of perceived appraisal support upon perceived job insecurity that was observed in the study. The results show that, when the individual rates their level of appraisal support as being high, they are less likely to perceive job insecurity. This could be attributed to the alleviative effect that exchanging confidences with a supportive other can have when facing a risk. Thus, perceived appraisal support may operate

as a protective factor against fear during crises and may at least disrupt the sequence of psychological events that lead to the affective experience of fear. This is consistent with the stress-buffering model of interpersonal support (Cohen and Wills 1985).

Despite a weak negative correlation between perceived appraisal support and COVID-19 fear in bivariate analyses, there was no direct effect of appraisal support upon COVID-fear when the effects of the other variables were accounted for. This suggests that perceived appraisal support *per se* is not a protective factor against experiencing fear. In addition to alleviating stressors, such as perceived job insecurity, that can precipitate fear, perceived appraisal support was found to be positively associated with identity resilience, which in turn was negatively associated with fear. Cohen and Wills (1985, 313) refer to appraisal support as “help in defining, understanding, and coping with problematic events.” The perceived availability of such support may thus be a key determinant of building and maintaining feelings of identity resilience, especially in the face of events and situations that could plausibly challenge it.

Exchanging confidences with a supportive other could enhance each of the four components of identity resilience. Hurd et al. (2018) have shown empirically that higher appraisal support can bolster feelings of self-esteem. Major et al. (1990) found that greater support from significant others (family, friends and partners) had a positive effect upon self-efficacy. Lawrence and Callan (2011) showed the effect of social support to cope with stress associated with organizational change, thereby enabling individuals to maintain a sense of continuity. Crucially, both subjective assessments of appraisal support and identity resilience amount to cognitive generalizations about the self. In assessing their identity resilience, the individual indicates their overall perception of self-esteem, self-efficacy, continuity and positive distinctiveness based upon their experiences over the life course irrespective of recent events. In estimating their appraisal support, the individual rates the level of support they would receive if they were to require it, also based upon prior experiences. This suggests that potential obstacles, impediments, and threats to the four components of identity resilience may be effectively resisted through appraisal support, thereby enabling the individual to retain relatively higher levels of identity resilience in the face of life’s challenges.

In many studies, identity resilience has been shown to be protective against poor mental health, including negative affect (Breakwell and Jaspal 2022; Jaspal 2024, 2025). Our study shows that it is also inversely associated with the negative affective experience of fear of the coronavirus. This suggests that identity resilience stimulates more adaptive emotional responses and, in general, less negative affect in the face of a hazard (Breakwell 2021). Identity resilience may therefore be the key psychological mechanism through which perceived appraisal support is indirectly associated with decreased fear. When people feel supported, they are better positioned to develop an identity that is characterized by self-esteem, self-efficacy, continuity and positive distinctiveness, which in turn is negatively associated with fear. The results suggest that perceived appraisal support that does not generate identity resilience may have limited or no effect upon emotions aroused in public crises. In short, it appears to be necessary for perceived appraisal support to promote a resilient identity for individuals to manage their fear levels effectively in the face of a hazard.

Although no predictions were made regarding the role of gender in COVID-19 fear, gender was included in the model as a control variable and was found to impact only on perceived appraisal support. Women reported statistically significantly higher levels of appraisal support than men. This finding is consistent with much existing research (Reevy and Maslach 2001; Tifferet 2020) and could be attributed to gender norms in some subcultures that generally permit and celebrate the pursuit of appraisal support as well as emotional self-disclosure among women but largely stigmatize this in men (e.g. McQueen 2017). Nevertheless, this suggests that men may be at higher risk of COVID-19 fear through the effects of lower perceived appraisal support upon both perceived job insecurity and identity resilience. Discouraging use of appraisal support may be counterproductive.

Limitations

First, in view of the cross-sectional correlational survey design of this study, it is not possible to ascertain causal relationships between the variables. Experimental and longitudinal research would help clarify causation. Second, with the exception of the perceived risk of COVID-19 > COVID-19 fear and perceived appraisal support > identity resilience associations, which were moderate, most correlations in the model were weak but statistically significant. The results should therefore be interpreted with caution. In future work, it would be valuable to use other measures to replicate the findings. Third, participants were asked only whether they were employed and not about the nature of their employment. Given the disproportionate impact of the pandemic on some sectors, it is likely that sector (and indeed job role) would moderate the relationships between the variables. This should be ascertained in future research. Fourth, it is clear that people vary in the extent to which they perceive appraisal support. Many factors operate as determinants of appraisal support. For instance, personality is likely to play an important role in the level of appraisal support that one is willing to seek and that subsequently becomes available. This would be a valuable addition to the model tested in this study. Fifth, the study used a single-item measure of perceived job insecurity, which was weakly correlated with fear of COVID-19. Other more sophisticated measures of perceived job insecurity (e.g. Vander Elst et al. 2014) that capture the cognitive and affective aspects of perceived job insecurity should be used in future research to replicate these findings. Finally, fear is only one emotion that may be experienced during a crisis. Others should also be examined, especially as the potential for fear to be functional may be influenced by the concurrent presence of other emotions.

Conclusions

By July 2020, over half a million people had died of COVID-19 worldwide, and many millions tested positive for the virus. Psychological research has previously shown the significance of perceived risk and fear in shaping coping behaviors during this public crisis. The current study indicates that to model the antecedents of fear in such crises, it is useful, in addition to socio-demographics, to build in such factors as:

- Perceived overall level of risk attributed to the crisis and how this is mediated by specific hazards generated as corollaries to the original crisis (e.g., perceived job insecurity);
- Identity processes (especially previously established levels of identity resilience) that influence how risks are assessed and coping deployed to moderate or channel fear;
- Interpersonal support structure access, not just for practical or material assistance but also for emotional and sense-making assistance.

Understanding the dynamic interactions of these factors and their role in shaping fear and the consequences of feeling afraid may be fundamentally important in preparing societal management responses not just for future public crises in health but also other types of public crisis. There may be particular value in designing public health interventions that focus not only on the practical steps for disease prevention (e.g. testing, vaccination) but also on the development, maintenance and enhancement of identity resilience in the face of a hazard. The results of this study and others (e.g. Breakwell, Jaspal, and Wright 2023; Gifford et al. 2025) suggest that a more resilient sense of identity can enhance affect and wellbeing and thus promote better health decision-making. COVID-19 has generated an unparalleled psychological database on a public crisis. In order to develop a more generalizable, comprehensive model of responses in public crises that will facilitate better management strategies, it will be necessary to mount coordinated, systematic programs of research internationally that use mixed methods (incorporating longitudinal and experimental methods) and that are multi-disciplinary.

Ethics approval

Nottingham Trent University's Schools of Business, Law and Social Sciences Ethics Committee provided ethical approval for this study (ref: 2020/191).

Consent to participate

Informed consent was obtained from all participants.

Consent to publish

Informed consent for publication of these findings was obtained from all participants.

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Data availability statement

Data are available on OSF: <https://doi.org/10.17605/OSF.IO/KWT8R>

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