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COVID-19 information overload and generation Z's social media discontinuance intention during the pandemic lockdown

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ABSTRACT

While previous research highlights the benefits of social media in times of a pandemic, this research focuses on the potential dark side of social media use among Generation Z (Gen Z) in the UK during the COVID-19 pandemic lockdown between March and May 2020. The study reveals that COVID-19 information overload through social media had a negative impact on Gen Z social media users' psychological well-being. Moreover, perceived information overload heightened both social media fatigue and fear of COVID-19, which, in turn, increased users' social media discontinuance intention. In addition, considering that social media is the predominant method of maintaining connectivity with others for Gen Z users during the lockdown, the fear of missing out (FoMO) buffered the impact of social media fatigue and fear of COVID-19 on Gen Z users' social media discontinuance intention. Our research adds a hitherto underexplored perspective to the impact of the COVID-19 pandemic on young people's mental health. We offer a series of practical suggestions for social media users, social media platform providers, and health officials, institutions, and organizations in the effective and sustainable use of social media during the global COVID-19 pandemic and in the post-pandemic time.

1. Introduction

Many countries brought in lockdown measures to curb the spread of coronavirus (COVID-19) in 2020. During this time, social media became the main source of information about the pandemic (Laato et al., 2020a). It was observed that social media use during the pandemic lockdown had the potential to influence individuals' psychological well-being, particularly among Generation Z (Gen Z – people born in the period from the mid-1990s to the early 2010s) (Dentsu Aegis Network, 2020; Priporas et al., 2017). Although social media usage carries many benefits to users, especially during the pandemic lockdown (Sheth, 2020), studies also underscore the dark side of social media and point out that the detrimental effects of social media use during the pandemic lockdown remain underexplored (Dhir et al., 2018; Dhir et al., 2019; Islam et al., 2020). Against this unique backdrop, this study investigates the impact of COVID-19 information overload on Gen Z social media users' psychological well-being and social media behavior during the pandemic-induced lockdown.

1.1. Impact of COVID-19 information on Gen Z via social media

The World Health Organization declared the coronavirus outbreak a pandemic and the spread of this disease (also known as the COVID-19 pandemic) has become an ongoing global public health event (World Health Organization, 2020). At the time of writing, more than 70 million infections and 1.6 million deaths have been reported in over 190 countries and territories (Johns Hopkins University, 2020). The outbreak of COVID-19 as a 'black swan event' has brought dramatic changes to all aspects of people's daily lives (Khanra et al., 2021; Talwar et al., 2020; Wind et al., 2020). Specifically, Gen Z, having grown up in peacetime with advanced technologies, is facing unprecedented challenges (Osgerby, 2020). COVID-19 is believed to be a defining catastrophe that will inform how members of Gen Z navigate the world as adults and what sort of future they will create (Parker, 2020). More importantly, recent reports point to Gen Z's psychological well-being and mental health having been heavily influenced by COVID-19 (Kluth, 2020). According to the latest report, 60% of Gen Z is

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concerned about COVID-19 and almost half of them feel anxious and/or depressed (Drenik, 2020). Issues relating to Gen Z's psychological well-being were particularly observed during the time the lockdown measures were imposed (Chandler-Wilde, 2020). Notably, health and well-being issues have been associated with Gen Z's social media use (Dentsu Aegis Network, 2020).

Previous studies identified the dark side of social media use and called for more academic inquiries in the field (Evers et al., 2020; Talwar et al., 2019). The impact of increased social media use and growing pandemic information on social media during the pandemic lockdown has been subject to limited investigation (GlobalWebIndex, 2020). Social media has shown extraordinary growth in terms of usage and diffusion in the past decades and has reshaped individuals' information consumption patterns (Dhir et al., 2018; Dhir et al., 2019; Luqman et al., 2017). Social media has also become the main information source during emergency events (Laato et al., 2020b; Mertens et al., 2020). The latest observations suggest that the enormous amount of COVID-19 information generated on social media has overwhelmed users and had a strong impact on their psychological well-being (Islam et al., 2020). Therefore, COVID-19 is not only a global pandemic, but also an 'infodemic' (Laato et al., 2020b). Gen Z has grown up as a generation of digital natives and is the main force behind social media use, but its members typically experience a higher-than-average level of information overload (Maier et al., 2015b; Turner, 2015). However, the information overload relating to COVID-19 on social media and its impact on Gen Z remains underexplored.

Although most observation shows that lockdown led to increased social media use among Gen Z, research found that, after the initial stage of the lockdown, young people demanded a social media detox (Gilsenan, 2020; Mehta, 2020). Gen Z's social media disengagement intention developed during this period and was reflected in a social media usage drop in a later stage of the lockdown (Bulik, 2020). However, knowledge of the linkage between the psychological well-being and social media behavioral change of young adults is limited (Tandon et al., 2020). Furthermore, due to the unprecedented nature of COVID-19, the existing literature has so far failed to consider the situational factors and explain the causes and psychological mechanisms behind Gen Z's social media disengagement during the lockdown. Thus, this inquiry is timely and important, as it will help social scientists to understand Gen Z's mental health states in the age of the 'new normal' and enable this generation to be provided with relevant support.

1.2. The current study

By utilizing evidence gathered from 322 Gen Z social media users in the UK during the nationwide lockdown period, this research investigates how Gen Z's social media discontinuance intention developed during the COVID-19 pandemic lockdown. More precisely, our research objectives are twofold. First, in underlining the significance of COVID-19 information overload on social media, this study explores the psychological mechanisms of Gen Z's social media discontinuance intention during the pandemic lockdown. We highlight the inner psychological processes (i.e., social media fatigue and fear of COVID-19) through which COVID-19 information overload on social media affected social media discontinuance intention. Second, we examine fear of missing out (FoMO) as a situational state that shaped the processes originating from inner emotional states and led to social media discontinuance intention.

Drawing upon the stimulus-organism-response (S-O-R) model, this paper responds to a series of important calls in previous research on social media and makes several important theoretical contributions. First, our research extends social media research by focusing on the dark side of social media use among digital natives during the time of the pandemic lockdown. Second, this paper provides novel insights into the psychological mechanism of Gen Z's social media disengagement during the COVID-19 lockdown.

In practical terms, this study offers crucial and timely insights for

social media users, social media platform providers and institutes and organizations that use social media for public communication. We advise members of Gen Z to self-monitor, self-evaluate and self-regulate their social media use and mental health in order to safeguard their psychological well-being. Social media platform providers are advised to reduce information overload by empowering social media users and allowing customized use. We also provide fresh insights for health officials, institutes and organizations into effective social media use during emergency events.

The rest of this study is organized as follows. We present the theoretical background before moving on to forming the hypotheses for our research model. The methods and results follow the hypothesis section. In the discussion section, we go through our key findings, theoretical and practical implications, as well as limitations and future research directions.

2. Theoretical background

The S-O-R model comes from environmental psychology and suggests that external environmental factors and conditions act as stimuli that influence individuals' internal states and, in turn, affect people's behavioral responses (Laato et al., 2020a; Mehrabian and Russell, 1974). The S-O-R model has also been applied successfully in information systems research to explain the effect of external environmental factors on users' behavioral tendencies (e.g., Cao and Sun, 2018; Luqman et al., 2017; Zhang et al., 2014). Thereby, given the unusual condition of the COVID-19 pandemic and the irreplaceable role of social media in informing modern society, we employ the S-O-R model as an overarching framework for investigating Gen Z's psychological mechanisms during this coronavirus pandemic. Specifically, we examine the effect of the informational overload on social media users' internal psychological well-being and, in turn, their intention to discontinue their social media use.

2.1. Perceived COVID-19 information overload on social media as environmental stimulus (S)

A stimulus in the S-O-R model refers to any environmental factor that elicits and arouses individuals' internal reactions to that environment (Choi and Kandampully, 2019; Mehrabian and Russell, 1974). The model explains that the environmental triggers influence individuals' internal states and such states in turn shape their behaviors (Animesh et al., 2011; Goi et al., 2014). Social media allows users to share information with each other. Indeed, during the coronavirus pandemic, social media has been used extensively to access health information, either supplementing or substituting traditional sources (Mertens et al., 2020). Such an enormous volume of health information causes difficulties for users, however, in locating, processing and managing the required valuable information effectively (Zhang et al., 2016). This intensive use of social media leads to information overload, meaning that social media users are exposed to information but it exceeds their ability to digest it (Bright et al., 2015). Information overload phenomena occur when users have difficulties in processing and handling the volume of information presented on social media (Maier et al., 2015a, 2015b). Although social media plays an important role in information dissemination today, information overload has been confirmed as one trigger of the negative consequences of social media usage (Bright et al., 2015; Laato et al., 2020a). Therefore, considering the research context of social media use during the global pandemic, COVID-19 information overload is the environmental stimulus considered in this study.

2.2. Internal psychological process as the organism (O)

The organism in the S-O-R model is represented by the inner states of perceptions, feelings and the exercise of thinking (Animesh et al., 2011; Zhang et al., 2014). Previous studies suggest that the impact of

environmental stimuli on users' behaviors is mediated by internal psychological changes (Goi et al., 2014; Luqman et al., 2017). It is undeniable that social media improves individuals' social capital and offers multiple information sources, which makes online communication more efficient (Bright et al., 2015). However, the usage of social media also has a dark side (e.g., leading to those who access it feeling anxious, bored or exhausted (Kaur et al., 2020; Nusrat et al., 2021)) and the information available exceeds users' affordance (Dhir et al., 2018; Maier et al., 2015a). In the digital age, an individual's inability to cope with new technologies or the consequences of using such technologies could lead to poor psychological health (Lo, 2019; Luqman et al., 2017; Zhang et al., 2016).

In the social media context, information overloading as an outcome of social media use could potentially elicit psychological ill-being (Maier et al., 2015a, 2015b). Prior research suggests that information overloading on social media triggers social media burnout and recognizes detrimental effects of information overload on social media users' well-being (Islam et al., 2020; Lo, 2019). During the uncertainty of the global pandemic, COVID-19 information overloading on social media has caused users' negative psychological responses associated with both the platform (i.e., social media) and the information (i.e., COVID-19). More specifically, on the one hand, the frequent use and excessive engagement with social media during the lockdown could potentially result in social media fatigue (Bright et al., 2015; Dentsu Aegis Network, 2020; Zhang et al., 2016). On the other, the dominance of COVID-19 information on social media during the pandemic may potentially cause excessive fear of the disease, particularly during a nationwide lockdown (Hargrave, 2020; Mertens et al., 2020). Therefore, this research focuses on an organism, as represented by the inner psychological processes triggered by COVID-19 information overloading and social media users' ill-being associated with both social media use (i.e., social media fatigue) and COVID-19 (i.e., fear of COVID-19).

2.3. Discontinuance intention as the response (R)

The S-O-R model suggests that an individual's behavioral response is the ultimate outcome of the internal processing of external stimuli (Cao and Sun, 2018). In this study, we focus on the discontinuance intention for social media use. In this context, discontinuance intention describes users' intention to change behavioral patterns by reducing usage intensity, or even to leave social media entirely (Maier et al., 2015a; Turel, 2015). It can be particularly observable in stressful situations because users tend to want to rid themselves of the negative consequences induced by technology, thereby restoring their well-being (Cao and Sun, 2018). Previous research suggests that social media users are motivated to discontinue using social media services once they have an intention to avoid uncomfortable online situations and consequences (Dhir et al., 2019; Lo, 2019).

Drawing on the S-O-R model and focusing on Gen Z's social media use during the pandemic lockdown, we suggest that COVID-19 information overloading on social media triggered negative psychological states in users, who then had the intention to change their social media use behaviors to avert such negative feelings.

2.4. Fear of missing out as a moderator

Although the relationships between environmental stimuli, internal psychological processes, and the responses of users have been studied in the general social media context (e.g., Cao and Sun, 2018; Turel, 2015; Wirth et al., 2015), the factors that moderate these relationships have received limited attention. Our study highlights FoMO as a context-specific factor that moderates the relationships between psychological states and a behavioral response. Ajzen (2002) suggests that context-specific factors need to be considered in determining the moderators that shape someone's behavioral intention. Context-specific factors are often used to consider a researched group's psychosocial

characteristics, habits and abilities associated with the researched phenomenon (Wang and Sun, 2016). Fear of missing out refers to individuals' apprehension or concerns about missing or being absent or disconnected from an experience that others (i.e., peers, friends, family) might receive or enjoy and is highlighted as a key driver of the younger generation's social media use (Dhir et al., 2018; Przybylski et al., 2013).

In the context of the pandemic lockdown, social media was the main route for Gen Z being able to maintain contact with significant others. Despite the tendency to abandon social media platforms when placed under psychological stresses, FoMO may potentially mitigate the transformation of the fear and fatigue drawn from COVID-19 information overloading into social media discontinuance intention.

3. Research model and hypotheses development

Drawing upon the S-O-R model and the above discussion, we developed the research framework shown in Figure 1. We considered control variables in the research model including gender, age, the self-reported health status, number of social media accounts, social media usage before lockdown, and social media experience based on the previous research (Cao and Sun, 2018; Luqman et al., 2017).

3.1. Information overload and internal psychological processes

An enormous volume of information can be rapidly produced and diffused on social media. Information overload arises when the amount of information to which people are exposed exceeds the optimal level that they can handle effectively (Zhang et al., 2016). Information overload causes users to feel overwhelmed and creates stress and negative emotional states. Therefore, given the penetration of social media, information overload has been seen as a side effect of the information age (Bright et al., 2015). In our research context, COVID-19 as a historic event has dominated the headlines across the different media. Meanwhile, social media, as a major information source of pandemic news and updates during the lockdown, was used to disseminate an abundance of information about COVID-19 (Islam et al., 2020; Talwar et al., 2021). During lockdown, Gen Z engaged heavily on social media and repeatedly received COVID-19 information, which potentially led to perceived information overload and triggered negative psychological states (Lee et al., 2016; Zhang et al., 2016).

Fatigue relating to social media refers to the state of psychological exhaustion from which social media users suffer (Dhir et al., 2018; Lee et al., 2016). Previous research reveals that social media fatigue can result from technological, information and communication overloads through social media users' participation and interactions on various platforms (Bright et al., 2015; Zhang et al., 2016). Specifically, information overload on social media could trigger user fatigue (e.g., Lee et al., 2016; Ravindran et al., 2014). This is because social media users' capacity for processing information does not increase at the same pace as information accumulates on social media (Dhir et al., 2018; Lang, 2000). Compared to older demographic cohorts, such as Gen X (i.e., people born between 1965 and 1980) and Gen Y (i.e., people born between 1980 and 1995), those in Gen Z lack life experience and have less cognitive capacity to deal with a huge amount of information (Foris and Foris, 2018; Priporas et al., 2017). Therefore, once Gen Z social media users reach their point of optimal capacity, social media becomes overwhelming and exhausting to them (Bright et al., 2015; Zhang et al., 2016). Moreover, Gen Z's increased use of social media during the lockdown facilitated a perceived COVID-19 information overload during that time, which caused users to have a sense of losing control (Maier et al., 2015a; Zhang et al., 2016). The tendency to want to maintain a feeling of being in control also causes social media users to feel tired (Zhang et al., 2016). Therefore, we hypothesize the following:

H1a: Perceived COVID-19 information overload on social media has a positive impact on social media fatigue.

Fear is an adaptive response to the presence of danger in order to

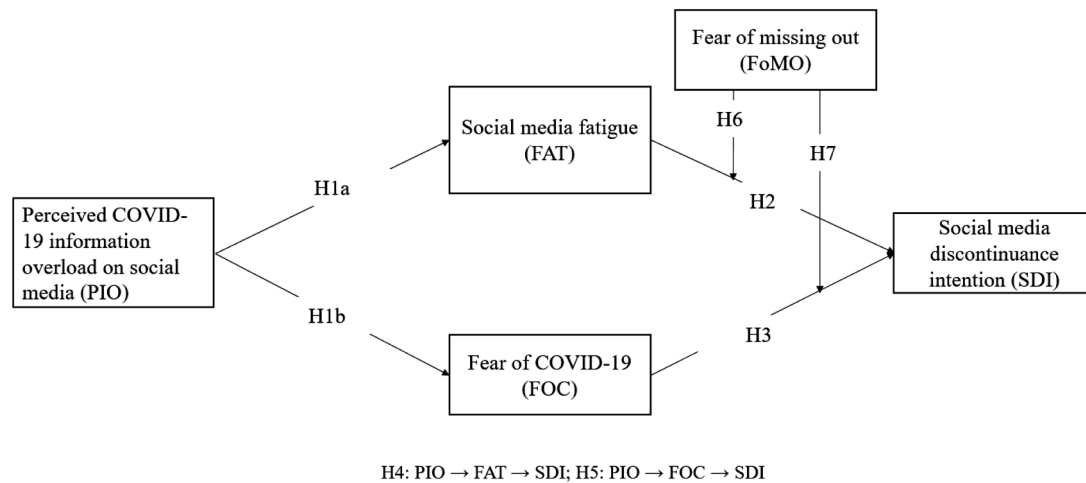


Fig. 1. Research model.

mobilize energy to deal with a potential threat (Vrinten et al., 2014). The COVID-19 pandemic is currently uncertain and ongoing and people have expressed fear regarding the potential danger of the coronavirus (Mertens et al., 2020). A recent survey shows that the COVID-19 pandemic led to people's anxiety and has brought worldwide turmoil (Asmundson and Taylor, 2020). Previous studies indicate that over-exposure to the information related to a disease may exacerbate individuals' level of fear toward that disease (Cauberghe et al., 2009; Mertens et al., 2018). During the COVID-19 pandemic, social media platforms have been filled with frightening statistics, practical advice or gallows humor related to the coronavirus (Mertens et al., 2020). The frequent reminders of COVID-19 (e.g., the spread, the high numbers of infected cases and deaths in the population and the protective measures) on social media have intensified the fear of the coronavirus (Hargrave, 2020; Mertens et al., 2020). Clinical psychology research suggests that adolescents view themselves as being more vulnerable than their parents and are less capable of coping with disease and death anxiety (Drolet, 1990; Quadrel et al., 1993). Furthermore, information about impending societal threats (e.g., economic collapse, political instability and resource shortages) and individual concerns (e.g., educational progress, financial security and the well-being of family members) caused by COVID-19 that appear on social media also aggravate Gen Z's fear of the virus (Garfin et al., 2020; Randle et al., 2017). Therefore, we hypothesize that:

H1b: Perceived COVID-19 information overload on social media has a positive impact on fear of COVID-19.

3.2. Internal psychological processes and discontinuance intention

Previous research reveals that exhaustion that develops when using social media is positively related to users' discontinuance intention and a myriad users have diverted themselves, either temporarily or permanently, from social media use due to unhealthy emotional states (Maier et al., 2015b). Once negative psychological states are associated with an action, people are motivated to take corrective actions, thereby restoring their psychological well-being (Zhang et al., 2016).

Users have been shown to suffer deterioration in mental and psychological strength due to social media fatigue (Dhir et al., 2018). Therefore, users who are confronted with social media fatigue are more willing to change their present situation and existing unhealthy state (Maier et al., 2015b). In this context, users often adopt self-regulating strategies to minimize the negative consequences of the feeling of being overwhelmed by social media use (Beaudry and Pinsonneault, 2005). In our research context, to address the social media fatigue originating from COVID-19 information overload, social media users are

likely to reduce the intensity of use or completely abandon their social networking platform accounts in an effort to rid themselves of the negative emotions associated with social media (Bright et al., 2015; Zhang et al., 2016). In addition, from the perspective of media psychology, social media fatigue, represented by the exhaustion drawn from an individual's social media use, leads to a reduction in the user's media consumption and demotivates the continued use of social media (Zhang et al., 2016). Since people actively seek specific media to satisfy their social and/or psychological needs (e.g., relaxation, entertainment and socialization), if they experience a greater level of exhaustion than gratification through social media use, they are unlikely to continue their media engagement. Therefore, we hypothesize that:

H2: Social media fatigue has a positive impact on social media discontinuance intention.

Fear is also an unpleasant emotion that can damage people's psychological well-being (Mertens et al., 2020). Social media reduces the cost of information generation and transmission but COVID-19 information overload on social media during the pandemic has posed challenges to Gen Z's information digesting capacity and intensified their fear of the disease (Garfin et al., 2020). The abundance of information on social media has contributed heavily to developing excessive fear of COVID-19 among Gen Z (Chandler-Wilde, 2020; Drenik, 2020; Zhang et al., 2016). In response to negative and stressful events, individuals have a tendency to self-regulate negative emotions in order to reclaim psychological well-being (Duckworth et al., 2011; Throuvala et al., 2019). To regulate fear of COVID-19 drawn from information exposure on social media, individuals have attempted to avoid such material (Dai et al., 2020). As social media was dominated by COVID-19 information during the lockdown, an effective way of eliminating fear was to reduce or even stop social media use (Collie, 2020; Guo et al., 2020). In such extreme circumstances, social media users take the initiative to adjust their social media usage behavior to escape their fear (Luqman et al., 2017). Thus, we suggest that users who are afraid of COVID-19 are motivated to escape from social media use and we present the following hypothesis:

H3: Fear of COVID-19 has a positive impact on social media discontinuance intention.

3.3. Mediating role of internal psychological processes

As mentioned earlier, the S-O-R model suggests that an internal mechanism translates an external environmental stimulus into a behavioral response through a psychological process. In this study, H1 suggests that perceived COVID-19 information overload on social media is positively related to Gen Z's internal psychological state, which

includes social media fatigue and fear of COVID-19, and H2 and H3 propose that the two internal psychological states positively affected Gen Z's social media discontinuance intention during the lockdown. Prior research employing S-O-R as the theoretical framework highlights the role of a psychological process in mediating the relationship between stimulus and response (Liu et al., 2013; Sherman et al., 1997). Studies focusing on information overload also suggest that it shapes individuals' behavior by influencing a psychological state (Cao and Sun, 2018; Dai et al., 2020). In light of this theoretical background and empirical evidence, we further explore the psychological mechanisms through which perceived COVID-19 information overload on social media influences social media discontinuance intention. Therefore, we hypothesize that:

H4: Social media fatigue mediates the relationship between perceived COVID-19 information overload on social media and social media discontinuance intention.

H5: Fear of COVID-19 mediates the relationship between perceived COVID-19 information overload on social media and social media discontinuance intention.

3.4. Moderating role of fear of missing out

FoMO refers to the psychological state of being afraid of being absent from or missing something that others might receive or enjoy (Przybylski et al., 2013). People who experience FoMO are likely to be persistent in seeking and acknowledging others' activities. Individuals who experience a higher level of FoMO are likely to be engrossed in psychological demands to be connected or related to and intimate with others (Beyens et al., 2016). During the lockdown, social media became the main tool that allowed Gen Z to keep in touch with others and satisfy their need to stay connected (Gilsenan, 2020; Mertens et al., 2020). Thus, although negative psychological states drawn from social media use could potentially lead to Gen Z's discontinuance of social media use, those who desired to stay connected with others were less likely to disengage from social media. In our study, we focus on the buffering effect of FoMO on the relationships between internal psychological processes and behavioral responses. This buffering effect of FoMO in relation to social media behavior changes has been overlooked but is important because it is a key driver of the young generation's social media use (Dhir et al., 2018; Throuvala et al., 2019).

Social media fatigue implies that users suffer from psychological losses due to social media use (Dai et al., 2020; Lin et al., 2020). However, people who fear missing out often perceive psychological gains through social media use. In line with prospect theory, the trade-off between the perceived losses and gains of an action shapes individuals' behavior (Kahneman and Tversky, 1979; Zhang et al., 2016). During the pandemic, social media became the main means of people maintaining contact with each other, which also distracted them from the loneliness engendered by the lockdown (Gilsenan, 2020; Mertens et al., 2020). Thereby, if those who suffered from social media fatigue also experienced a high level of FoMO and valued staying connected with others through social media, they were less likely to discontinue their social media use. This is because the 'net loss' of psychological well-being on social media use is decreased (Cowley, 2008). In other words, social media use satisfied the social needs drawn from FoMO and buffered the effects of social media fatigue. Therefore, we hypothesize that:

H6: A higher level of FoMO weakens the effects of social media fatigue on Gen Z's social media discontinuance intention.

Similarly, fear of COVID-19 drawn from information overload on social media and FoMO posed a mental trade-off for Gen Z during the lockdown. On the one hand, fear of COVID-19 motivated social media users to stay away from the social media on which they felt they were becoming overloaded with information. On the other, fear of missing information and becoming disconnected from others during the lockdown locked social media users in, as users with high FoMO were likely to engage more on social media (Baker et al., 2016). Therefore, the fear

of missing out and the desire to connect with others helped social media users overcome their fear of COVID-19 drawn from information found on social media. Given that their excessive fear of COVID-19 developed from social media use, users who were more afraid of missing updates from their contacts were more likely to suffer psychological losses from social media disengagement. Therefore, social media users who were high in FoMO were less likely to discontinue their social media use, even though they feared encountering COVID-19 information on social media. Meanwhile, those who often stayed online and interacted with others during the lockdown were more likely to receive online peer support, which could help them ease their anxiety and improve their psychological well-being (Zhong et al., 2020). Therefore, we hypothesize that:

H7: A higher level of FoMO weakens the effects of fear of COVID-19 on Gen Z's social media discontinuance intention.

4. Methodology

We applied an online survey method to collect a sample to test the proposed research model. This section explains the measures of the construct and provides details of the sample and the data collection procedure.

4.1. Measurement

The constructs used in this survey were adapted from existing studies and modified to fit our research context in order to ensure content validity. The content validity of the survey measures was ascertained by incorporating suggestions from three professors of information management and marketing with experience of social media research (Dhir et al., 2017; Dhir et al., 2019). To ensure face validity, a pilot study was conducted with 15 active social media users. Participants were invited to complete the survey and make notes for potential issues spotted and suggestions for improving the understandability and readability of the survey. Two online focus groups were then used as a follow-up for participants to provide feedback (Liu et al., 2019). Based on the feedback, we made minor changes and finalized the survey used for the main data collection.

Table 1 lists the items of all the scales used and the related references. The measurement for perceived COVID-19 information overload on social media (PIO) was adapted from Swar et al. (2017) and social media fatigue (FAT) was adapted from Xiao and Mou (2019). The construct of fear of COVID-19 (FOC) was adapted from Vrinten et al. (2014). The social media discontinuance intention (SDI) measurement was adapted from Lo (2019) and the fear of missing out (FoMO) measurement was based on Dhir et al. (2018). All items were measured using a seven-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree).

4.2. Sample and data collection

The target population for this study consisted of people who are over 18 years of age and from Gen Z in the UK, as the younger generations are the main users of social media (World Economic Forum, 2019). We recruited participants from an online panel between April and May 2020 during the UK's full nationwide lockdown, during which people were advised only to leave their home for a limited number of reasons (e.g., once-daily exercise, food shopping and for work if absolutely necessary) (BBC, 2020). During that period, Gen Z's social media use increased, although individuals were also observed to suffer from psychological ill-being and mental health issues (Asmundson and Taylor, 2020; GlobalWebIndex, 2020). Our study explores the dark side of Gen Z's social media use during the lockdown by examining the detrimental effects of pandemic information overload on their psychological states and investigating the impact of these psychological states on their social media behavior.

The final sample consisted of 322 Gen Z social media users who were

Table 1
Measures of constructs.

| Variable | Items | Source |
|---|---|------------------------|
| Perceived COVID-19 information overload on social media (PIO) | PIO1 - I cannot handle all the COVID-19-related information on social media effectively. | (Swar et al., 2017) |
| | PIO2 - I am not certain that the information about COVID-19 on social media fits my needs well to make better decisions (e.g., measures applied, health advice and psychological well-being). | |
| | PIO3 - I have no idea where to find reliable information on social media about a particular aspect of COVID-19 due to the abundance of information. | |
| | PIO4 - I would prefer to do other things (e.g., reading, cooking, watching TV) rather than spending time on social media during lockdown. | |
| Social media fatigue (FAT) | FAT1 - I feel frustrated when using social media these days. | (Xiao and Mou, 2019) |
| | FAT2 - I feel emotionally drained after using social media these days. | |
| | FAT3 - I feel irritable after using social media for hours these days. | |
| | FAT4 - I would prefer to do other things (e.g., reading, cooking, watching TV) rather than spending time on social media during lockdown. | |
| Fear of COVID-19 (FOC) | FOC1 - I fear COVID-19 more than other diseases. | (Vrinten et al., 2014) |
| | FOC2 - Thinking about COVID-19 causes discomfort to me. | |
| | FOC3 - I worry about COVID-19 frequently. | |
| | FOC4 - COVID-19 scares me. | |
| Social media discontinuance intention (SDI) | SDI1 - I will use social media far less than I do today. | (Lo, 2019) |
| | SDI2 - I will take a short break from social media and return later. | |
| | SDI3 - I will deactivate my social media accounts. | |
| | SDI4 - I would prefer to do other things (e.g., reading, cooking, watching TV) rather than spending time on social media during lockdown. | |
| Fear of missing out (FoMO) | FoMO1 - I fear others are having more rewarding experiences than me during lockdown. | (Dhir et al., 2018) |
| | FoMO2 - I fear my friends are having more rewarding experiences than me during lockdown. | |
| | FoMO3 - I get worried when I find out my friends are having fun without me during lockdown. | |

residing in the UK at the time. The demographic statistics of the respondents in the final sample are summarized in Table 2. Among this sample, most of the respondents were in the age range of 21 to 23 years old, followed by those in the age group ranging from 19 to 20 years. Male, female and other respondents comprised 38.8%, 60.9% and 0.3% of the sample, respectively. Of the respondents, 26.7% had four social media accounts, 18.3% had two accounts and 17.4% had five accounts. Of the sample, 37.6% stated they used social media all the time before lockdown and 31.7% reported that they frequently used social media. Most respondents (62.4%) had more than five years' social media experience and only 1.6% of the sample had one to two years' experience.

5. Results

To test our measurement and the proposed structural model, we utilized SPSS to conduct explanatory factor analysis (EFA) and Mplus for the confirmatory factor analysis (CFA) and structural equation modeling undertaken in this study.

Table 2
Demographics of respondents.

| Category | | Frequency | Percentage |
|------------------------------------|--------------|-----------|------------|
| Gender | Male | 125 | 38.8 |
| | Female | 196 | 60.9 |
| | Other | 1 | 0.3 |
| Age | 18-20 | 137 | 42.6 |
| | 21-23 | 164 | 50.9 |
| | 24-25 | 21 | 6.5 |
| | 1 | 29 | 9.0 |
| | 2 | 59 | 18.3 |
| Number of social media accounts | 3 | 51 | 15.8 |
| | 4 | 86 | 26.7 |
| | 5 | 56 | 17.4 |
| | 6 | 22 | 6.8 |
| | More than 6 | 19 | 5.9 |
| Social media usage before lockdown | Rarely | 5 | 1.6 |
| | Occasionally | 5 | 1.6 |
| | Sometimes | 15 | 4.7 |
| | Frequently | 33 | 10.2 |
| Social media experience (years) | Usually | 41 | 12.7 |
| | Very usually | 102 | 31.7 |
| | All the time | 121 | 37.6 |
| | 1-2 | 5 | 1.6 |
| Self-reported health status | 3-4 | 116 | 36.0 |
| | More than 5 | 201 | 62.4 |
| | Very poor | 18 | 5.6 |
| Social media experience (years) | Poor | 33 | 10.2 |
| | Fair | 41 | 12.7 |
| | Good | 34 | 10.6 |
| | Very good | 75 | 23.3 |
| | Excellent | 76 | 23.6 |
| Self-reported health status | Exceptional | 45 | 14.0 |

5.1. Measurement model

EFA was employed to confirm the underlying factor structure. The results of the EFA with principal component extraction and Varimax rotation resulted in a five-factor solution. Table 3 shows the item loadings for each measurement. The results of the EFA indicate that the factor loadings are above the cut-off, between 0.712 and 0.930. Five factors with Eigen values greater than 1 explained 76.166% of the variance and significantly loaded on their associated factors without high cross-loadings, which is satisfactory for a social science study (Hair et al., 1979).

CFA that included five latent factors was performed to evaluate the composite reliability (CR) and convergent and discriminant validity of

Table 3
Explanatory factor analysis and item loadings.

| Construct | Items | FOC | SDI | FoMO | FAT | PIO |
|---|-------|--------|--------|--------|--------|--------|
| Perceived COVID-19 information overload on social media (PIO) | PIO1 | | | | | 0.856 |
| | PIO2 | | | | | 0.883 |
| | PIO3 | | | | | 0.831 |
| Social media fatigue (FAT) | FAT1 | | | | 0.850 | |
| | FAT2 | | | | 0.858 | |
| | FAT3 | | | | 0.830 | |
| Fear of COVID-19 (FOC) | FOC1 | 0.831 | | | | |
| | FOC2 | 0.831 | | | | |
| | FOC3 | 0.865 | | | | |
| | FOC4 | 0.887 | | | | |
| Social media discontinuance intention (SDI) | SDI1 | | 0.824 | | | |
| | SDI2 | | 0.810 | | | |
| | SDI3 | | 0.769 | | | |
| | SDI4 | | 0.712 | | | |
| Fear of missing out (FoMO) | FoMO1 | | | 0.912 | | |
| | FoMO2 | | | 0.930 | | |
| | FoMO3 | | | 0.825 | | |
| Eigenvalue | | 3.182 | 2.610 | 2.475 | 2.380 | 2.301 |
| % of Variance | | 18.715 | 15.355 | 14.561 | 14.002 | 13.533 |
| Cumulative % | | 18.715 | 34.070 | 48.631 | 62.634 | 76.166 |

each construct, as well as the goodness-of-fit of the measurement model. Maximum likelihood estimation was utilized for testing each construct's measurement model and the results are shown in Tables 4 and 5. The goodness-of-fit statistics are accepted: the values of the comparative fit index (CFI) and Tucker-Lewis index (TLI) are both greater than 0.9; The value of the root mean square error of approximation (RMSEA) is lower than 0.08; and the ratio of the chi-square to the degree of freedom (df) was 1.838, which is below the cut-off of 4, indicating the measurement model's good fit with the data (Hu and Bentler, 1999). The Cronbach's alphas for each construct range from 0.813 to 0.904 (Cronbach, 1951) and the CRs range from 0.816 to 0.906, which are above the required minimum of 0.7, thus confirming their acceptable level of internal consistency, reliability and convergent validity.

The standardized factor loadings are greater than 0.5 (the majority are above 0.7) and are statistically significant. Moreover, the average variance extracted (AVE) for the individual constructs is above the threshold of 0.5 and below the CR, further confirming the convergent validity. In addition, the square root of the AVE of the latent constructs is greater than the correlation coefficients between them (see Table 5), the AVEs for a given study measure are greater than the corresponding maximum shared variance (MSV) and average shared variance (ASV), and the correlation between any two study measures is below the threshold limit of 0.80, confirming their discriminant validity (Bagozzi and Yi, 1988; Fornell and Larcker, 1981).

We used Harman's one-factor test to examine common method variance, a single factor explaining 28.965% of the variance, which is below 50%. The worse fit for the one-factor model ($\chi^2 = 1916.072$ ($df = 119$, $\chi^2/df = 16.101$, $p < 0.001$); RMSEA = 0.217; CFI = 0.401; TLI = 0.315) suggests that common method bias does not pose a serious threat to the measurement model. The variance inflation factor for each independent variable is lower than the suggested threshold of 4, thus suggesting the absence of multicollinearity (Chatterjee and Hadi, 2015; Harman, 1967; Podsakoff et al., 2003).

5.2. Structural model

Table 5 shows the means, standard deviations and correlations of the study constructs, as well as the square root of the AVE.

We employed two steps to test the structural model with the data (see Table 6). First, we used Mplus with a bootstrapping method to test the direct and indirect paths. The overall fit indices for the proposed model are acceptable because the results are within the commonly accepted values: chi-square/df is 1.737, CFI = 0.954, TLI = 0.948 and RMSEA = 0.048. We then calculated the path coefficient.

Table 4
Results of the confirmatory factor analysis.

| Construct | Items | Loadings | Cronbach's alpha (α) |
|---|-------|----------|-------------------------------|
| Perceived COVID-19 information overload on social media (PIO) | PIO1 | 0.830 | 0.834 |
| | PIO2 | 0.804 | |
| | PIO3 | 0.751 | |
| Social media fatigue (FAT) | FAT1 | 0.698 | 0.871 |
| | FAT2 | 0.942 | |
| | FAT3 | 0.862 | |
| Fear of COVID-19 (FOC) | FOC1 | 0.744 | 0.904 |
| | FOC2 | 0.873 | |
| | FOC3 | 0.740 | |
| | FOC4 | 0.886 | |
| Social media discontinuance intention (SDI) | SDI1 | 0.746 | 0.813 |
| | SDI2 | 0.779 | |
| | SDI3 | 0.747 | |
| | SDI4 | 0.623 | |
| Fear of missing out (FoMo) | FoMo1 | 0.894 | 0.884 |
| | FoMo2 | 0.917 | |
| | FoMo3 | 0.740 | |
| Goodness-of-fit Statistics: χ^2 (109) = 200.355 ($p < 0.001$); $\chi^2/df = 1.838$; CFI = 0.970; TLI = 0.962; RMSEA = 0.050 | | | |

The results indicate that perceived COVID-19 information overload on social media has a significant positive association with social media fatigue (H1a: $\beta = 0.246$; $p < 0.001$) and fear of COVID-19 (H1b: $\beta = 0.234$; $p < 0.001$). Therefore, H1a and H1b are supported. Social media fatigue has a significant and positive association with social media discontinuance intention (H2: $\beta = 0.298$; $p < 0.001$). Thus, H2 is also supported. Fear of COVID-19 has a significant positive association with social media discontinuance intention (H3: $\beta = 0.242$; $p < 0.001$), thereby supporting H3. Moreover, H4 proposed that social media fatigue mediates the path from perceived COVID-19 information overload on social media to social media discontinuance intention, with H5 proposing that fear of COVID-19 mediates the relationship between perceived COVID-19 information overload on social media and social media discontinuance intention. The indirect effects are positive and significant (H4: $\beta = 0.074$; $p < 0.01$; H5: $\beta = 0.057$; $p < 0.05$), which validates H4 and H5.

Second, to estimate the moderating effects, we centered three variables: social media fatigue (FAT), fear of COVID-19 (FOC), and fear of missing out (FoMo), to reduce potential multicollinearity effects. We then added FoMo and two interaction variables (FAT*FoMo and FOC*FoMo) into the main structural model, developing the interaction effects model. The model fit index was adequate: χ^2 (237) = 388.458 ($p < 0.05$); $\chi^2/df = 1.639$; CFI = 0.951; TLI = 0.944; RMSEA = 0.045. With regard to H6, the empirical results show that social media fatigue is still positively and significantly related to social media discontinuance intention ($\beta = 0.266$; $p < 0.001$), FoMo is significantly and negatively associated with social media discontinuance intention ($\beta = -0.190$; $p < 0.01$), and the interaction item (FAT*FoMo) is negatively and significantly associated with social media discontinuance intention ($\beta = -0.159$; $p < 0.01$). Thus, H6 is supported (see Fig. 2). Similarly, fear of COVID-19 is still positively and significantly related to social media discontinuance intention ($\beta = 0.248$; $p < 0.001$), FoMo is significantly and negatively associated with social media discontinuance intention ($\beta = -0.190$; $p < 0.01$), and the interaction item (FOC*FoMo) is negatively and significantly associated with social media discontinuance intention ($\beta = -0.134$; $p < 0.05$). Thus, H7 is also supported (see Fig. 3).

6. Discussion

6.1. Key findings

Using the S-O-R framework, this study explored the dark side of Gen Z's social media use during the pandemic lockdown in the UK. More specifically, we examined the detrimental effects of COVID-19 information overload on social media on Gen Z's psychological well-being and, subsequently, the impact of two psychological states (social media fatigue and fear of COVID-19) on Gen Z's social media discontinuance intention. We further investigated how the relationship between internal psychological states and discontinuance intention was shaped by Gen Z's fear of missing out. Several findings are noteworthy.

The first hypothesis (H1) examined whether the perceived COVID-19 information overload on social media positively affects Gen Z's social media fatigue (H1a) and fear of COVID-19 (H1b). The results indicate that the perceived COVID-19 information overload on social media increased social media fatigue and fear of COVID-19. Gen Z users were exposed to a large amount of COVID-19 information on social media during the pandemic lockdown, due first to the urgency and unprecedentedness of COVID-19 and second, the crucial role of social media in the information consumption during the pandemic. As the amount of information, misinformation (i.e., false information created with no intention to harm others), disinformation (i.e., false information deliberately created to harm a person, group, organization or country) and mal-information (i.e., information based on reality used to inflict harm on a person, group, organization or country) about COVID-19 increased on social media, Gen Z was, as the main group of social media users, likely to be overloaded by pandemic information (Iretton and Posetti,

Table 5
Mean, standard deviation, convergent and discriminant validity and correlation.

| Variables | M(SD) | CR | AVE | MSV | ASV | PIO | FAT | FOC | SDI | FoMO |
|---|-------------|-------|-------|-------|-------|--------------|--------------|--------------|--------------|--------------|
| Perceived COVID-19 information overload on social media (PIO) | 2.87 (1.34) | 0.838 | 0.633 | 0.058 | 0.040 | 0.796 | | | | |
| Social media Fatigue (FAT) | 4.19 (1.61) | 0.876 | 0.706 | 0.281 | 0.119 | 0.220** | 0.840 | | | |
| Fear of COVID-19 (FOC) | 4.47 (1.57) | 0.906 | 0.709 | 0.281 | 0.113 | 0.187** | 0.457** | 0.842 | | |
| Social media discontinuance intention (SDI) | 3.51 (1.33) | 0.816 | 0.527 | 0.135 | 0.086 | 0.157** | 0.293** | 0.284** | 0.726 | |
| Fear of missing out (FoMO) | 3.84 (1.80) | 0.889 | 0.729 | 0.053 | 0.016 | 0.106 | -0.010 | 0.030 | -0.239** | 0.854 |

Diagonal line rendered in boldface shows the square root of the AVE of each construct. Correlation is significant at the 0.01 level.

Table 6
Results of structural model.

| Hypothesis | Hypothesized paths | Path coefficient | Result |
|--|--|-------------------------|---------------|
| Hypothesis 1a | Perceived COVID-19 information overload on social media (PIO) → Social media Fatigue (FAT) | 0.246*** | Supported |
| Hypothesis 1b | Perceived COVID-19 information overload on social media (PIO) → Fear of COVID-19 (FOC) | 0.234*** | Supported |
| Hypothesis 2 | Social media Fatigue (FAT) → Social media discontinuance intention (SDI) | 0.298*** | Supported |
| Hypothesis 3 | Fear of COVID-19 (FOC) → Social media discontinuance intention (SDI) | 0.242*** | Supported |
| Hypothesis | Hypothesized paths | Indirect effects | Result |
| Hypothesis 4 | PIO → FAT → SDI | 0.074** | Supported |
| Hypothesis 5 | PIO → FOC → SDI | 0.057* | Supported |
| Model fit statistics: $\chi^2(153) = 265.810$ ($p < 0.05$); $\chi^2/df = 1.737$; CFI = 0.954; TLI = 0.948; RMSEA = 0.048; | | | |
| Hypothesis | Hypothesized paths | Path coefficient | Result |
| Hypothesis 6 | FAT → SDI | 0.266*** | Supported |
| | Fear of missing out (FoMO) → SDI | -0.190** | |
| | FAT*FoMO → SDI | -0.159** | |
| Hypothesis 7 | FOC → SDI | 0.248*** | Supported |
| | Fear of missing out (FoMO) → SDI | -0.190** | |
| | FOC*FoMO → SDI | -0.134* | |
| Model fit statistics: $\chi^2(237) = 388.458$ ($p < 0.05$); $\chi^2/df = 1.639$; CFI = 0.951; TLI = 0.944; RMSEA = 0.045. | | | |

2018; Islam et al., 2020). From the users' perspective, this information overload triggered psychological discomfort, thereby leading to user fatigue in relation to social media. This finding is consistent with previous studies and highlights the detrimental effects of pandemic

information overload on individual social media users' psychological well-being during a global health crisis (Van Den Bulck and Custers, 2009; Zhang et al., 2016).

In addition, COVID-19 information overload on social media not only influenced social media users' psychological state associated with the platforms they accessed (i.e., social media), but also their feelings and perceptions relating to the event about which they were being informed (i.e., COVID-19). Information overload on social media aggravated users' concerns regarding the uncertainty and continuation of COVID-19 (Mertens et al., 2020). Gen Z has limited life experience and a relatively low capacity for digesting information effectively (Foris and Foris, 2018). The enormous amounts of complex information related to COVID-19 exceeded the information-processing capacity of the members of Gen Z and further hindered their ability to develop an unbiased assessment of COVID-19, which led to a higher level of fear of the coronavirus pandemic.

Hypotheses H2 and H3 proposed that social media fatigue (H2) and fear of COVID-19 (H3) have a positive correlation with social media discontinuance intention. The results show that social media fatigue and fear of COVID-19 significantly increased users' social media discontinuance intentions. This is in line with previous research that suggests that when negative emotional states are drawn from social media use, social media users tend to adjust their usage behavior, thereby eliminating negative emotions (Cao and Sun, 2018; Maier et al., 2015b).

Hypotheses H4 and H5 further examined whether social media fatigue (H4) and fear of COVID-19 (H5) mediate the relationship between perceived COVID-19 information overload on social media and social media discontinuance intention. Our results support these two hypotheses. More precisely, social media fatigue and fear of COVID-19 are psychological processes that mediate the relationship between an external environmental stimulus (i.e., perceived COVID-19 information overload on social media) and a behavioral response (i.e., social media discontinuance intention). From the perspective of self-regulation, individuals have a tendency to opt out of those activities from which

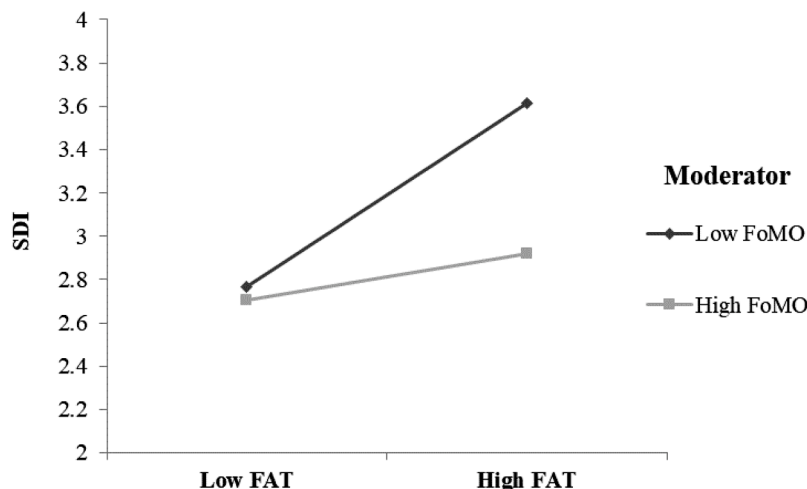


Fig. 2. Moderating role of FoMO between FAT and SDI.

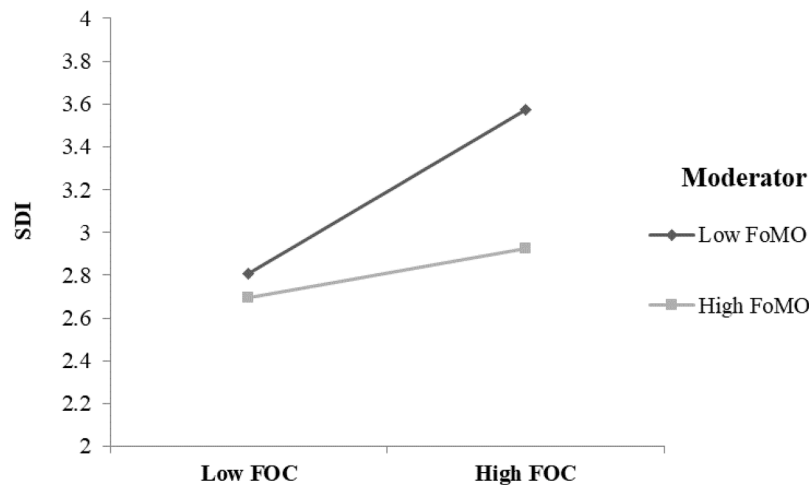


Fig. 3. Moderating role of FoMO between FOC and SDI.

psychological discomfort originates (Koole et al., 2011). In this case, psychological ill-being (e.g., social media fatigue and fear of COVID-19) resulted from COVID-19 information overload on social media and contributed to Gen Z's social media discontinuance intention. These findings demonstrate how the psychological mechanism of an overload of COVID-19 information on social media could shape an individual's social media use behavior. In other words, without eliciting social media fatigue and fear of COVID-19, perceived information overload on social media may not necessarily or effectively have an influence on Gen Z's discontinued use of social media.

Hypotheses H6 and H7 investigated whether Gen Z social media users' FoMO weakens the positive impact of social media fatigue (H6) and fear of COVID-19 (H7) on social media discontinuance intention. Our results suggest that fear of missing out acts as a moderator that weakens the associations between the inner psychological states of Gen Z social media users (i.e., social media fatigue and fear of COVID-19) and their social media discontinuance intention. This could be attributable to a trade-off between psychological gains and losses. Users who are high in FoMO tend to derive more benefits from social media use, particularly during the time of lockdown (Gilsenan, 2020; Przybylski et al., 2013). FoMO as an independent psychological state can be seen to have shaped the effects of psychological processes derived from COVID-19 information overload on social media and Gen Z's social media discontinuance intention.

6.2. Theoretical implications

This study presents several important theoretical implications. First, our research enriches cyberpsychology research by focusing on the dark side of social media use among Gen Z and contributes to the developing research stream on technostress. Our contextualization of Gen Z's social media discontinuance during COVID-19 lockdown is timely and important and offers fresh insights into the younger generation's social media use behavior under the extraordinary circumstance of a global pandemic. More precisely, Gen Z is the main group of social media users and most social media research has focused on that generation's active engagement with social media, rather than their termination of its use (e.g., Priporas et al., 2017; Throuvala et al., 2019). Our findings push the boundaries of the stereotype of Gen Z as digital natives taking full control of social media and highlights that generation's vulnerability in relation to social media use, particularly during the pandemic (Drenik, 2020; Turner, 2015). From a media research perspective, although social media became the main information source during the COVID-19 emergency lockdown for some groups, the effectiveness of social media use as a means of communication during such events remains less

evident (Mertens et al., 2020). Our study identifies detrimental effects of an overload of pandemic information on social media from the users' perspective and highlights the potential drawback of social media use in emergency events.

Second, although some reports reveal that the pandemic lockdown led to Gen Z's psychological ill-being, the psychological mechanisms (i.e., the antecedents and outcomes of such negative psychological states) have not been explored (Chandler-Wilde, 2020; Maier et al., 2015a). Our study provides novel insights into Gen Z's psychological well-being associated with social media use during the lockdown and highlights that COVID-19 information overload on social media harmed psychological states and subsequently shaped Gen Z's social media use behavior. More specifically, unlike prior research focusing on generic psychological states resulting from information overload, we reflect on the research context and specify two separate psychological pathways by emphasizing platform-associated (i.e., social media fatigue) and information-associated (i.e., fear of COVID-19) psychological states. This approach advances understanding of information overload on social media as an increasingly evident phenomenon in the information age and illustrates the psychological mechanisms of how information overload shapes social media users' behavior (Dai et al., 2020).

Finally, our study adds to the current literature by investigating the buffering effect of fear of missing out on the relationship between Gen Z's internal psychological processes resulting from COVID-19 information overload and their behavioral response in relation to social media use. We specify that, as an independent psychological state, FoMO allowed members of Gen Z to gain psychological comfort from social media use during lockdown and buffered the effects of negative emotions drawn from social media information overload on Gen Z changing its social media usage. This research addresses a notable research gap regarding the psychological trade-off involved in terminating social media use and sheds new light on factors that can mitigate the transformation of inner psychological processes into social media discontinuance intentions (Koohikamali et al., 2019; Wang et al., 2020).

6.3. Practical implications

Our study presents several practical implications for social media users, social media providers and policy makers to consider. It is beneficial for social media users, Gen Z in this case, to understand the impact of social media (mis)use on their psychological well-being. We advise Gen Z social media users to self-monitor their information consumption on social media, self-evaluate psychological states associated with social media and self-regulate their social media use, thereby sustaining healthy social media use habits and maintaining psychological well-

being, especially during emergency events (e.g., a pandemic lockdown). More precisely, given that Gen Z has limited information processing capacity due to lack of life experience, its members are advised to be more selective in the information they consume from social media. We also encourage members of Gen Z to filter out information that may cause psychological harms and/or take breaks from social media in order to improve their psychological well-being. Continuing attention needs to be paid to Gen Z's psychological well-being during this difficult time due to the unpredictability and likely continuation of the COVID-19 pandemic. Social media plays an important role in the lives of Gen Z as a generation of digital natives. Therefore, the decision to change social media use needs to consider both the psychological gains and losses that the decision could potentially produce, in order to maximize the psychological gains and maintain psychological well-being.

For social media platform providers, our findings shed new light on the reasons and psychological mechanisms behind users' disengagement from social media. In addition to the convenience and timeliness of social media in the COVID-19 communication during the pandemic, we highlight the detrimental effects of pandemic information overload on social media on Gen Z's psychological well-being. To maintain the sustainable development of social media, media providers are advised to pay close attention to users' psychological well-being in relation to social media use. More importantly, media providers should also allow customized use of social media by developing content filtering functions. Specifically, social media platform providers could use machine learning techniques to identify emotionally distressed users and allow those users to temporarily or permanently block content related to particular topics (Chau et al., 2020; Coelho et al., 2018). This type of personalized service would facilitate user empowerment and contribute to the sustainable development of social media platforms. As digital natives and the main group of social media users, Gen Z represents high customer lifetime value to social media providers. Therefore, media providers need to pay close attention to Gen Z's patterns of social media use and develop services accordingly to accommodate their needs and preferences in social media use.

Social media is increasingly being used in public communication, both during the COVID-19 pandemic and other emergency events. As the cost of content generation on social media is low, the abundance of pandemic (mis)information on social media exceeds users' information-digesting capacity and has led to negative emotional stresses on social media users. In this case, important information from professional institutions, organizations and authorities may have been drowned out in the information overload on social media. To avoid pandemic information competing for attention with other sources on social media, professional bodies should establish social media content publishing routines and clearly inform social media users of where, how and when to receive genuine information. They could also collaborate with social media platform providers and operate 'online clinics' to 'diagnose' untrue information on social media and prevent social media users from suffering the kind of psychological discomfort led by pandemic misinformation and disinformation.

6.4. Limitations and future research

The present study has some limitations. First, since the data were collected in one specific country (i.e., the UK) and from one age group (i.e., Gen Z) during the first national lockdown, it is suspected that the current findings may vary if other age groups, cultural backgrounds and pandemic phases are considered. To address this limitation, we encourage other scholars to validate a similar research model with other age groups across different cultures to consider the various phases of the global pandemic. Second, the present study has a cross-sectional design and collected data from an online panel, an approach that is subject to methodological biases (e.g., selection and response bias) and is unable to reflect possible changes in given relationships over a period of time. In responding to this limitation, and in light of the continuing pandemic,

future research is suggested that employs a longitudinal approach and/or qualitative methods (e.g., interview and focus group) to further understand the impacts of pandemic information exposure on Gen Z's psychological well-being and social media usage during the pandemic and in the post-pandemic period. Third, this research focuses on fatigue and fear as detrimental psychological statuses and social media discontinuance as a behavioral outcome drawn from pandemic information overload on social media. However, prior research on the dark side of social media use suggests that other aspects of psychological ill-being (e.g., anxiety, depression and burnout; Dhir et al., 2018; Evers et al., 2020) could result from problematic social media use, and that the behavioral consequences go beyond social media use behaviors (e.g., problematic sleep and academic performance decrement; Dhir et al., 2019; Malik et al., 2020; Tandon et al., 2020) among the younger generation. Therefore, we encourage scholars to incorporate other relevant and unusual measures to extend the findings of the present study. Future research could consider the influence of social media use on individuals' consumption behaviors, self-protection behaviors against COVID-19, and socialization (Laato et al., 2020a). Similarly, scholars could also explore how to use social media to improve individuals' psychological well-being and mental health in the challenging time of COVID-19. Fourth, while we focus on the negative consequences of fear of COVID-19 in the context of this research, we acknowledge that fear of COVID-19 may also result in other outcomes, such as preventive measures and compliance with guidelines (Pakpour and Griffiths, 2020). Considering the ongoing pandemic, the effects of COVID-19 fear may also evolve. Future research could further investigate the other possible outcomes of fear of COVID-19 that are associated with media consumption and technology use at different stages of the pandemic.

7. Conclusion

This research explored the dark side of social media use among Gen Z during the first pandemic lockdown in the UK and adds to empirical evidence of the devastating effect of the COVID-19 pandemic on young people's mental health. Using the S-O-R framework, this study reveals the detrimental effect of COVID-19 information overload on social media that resulted in Gen Z social media users' psychological ill-being – social media fatigue and fear of COVID-19. Both social media fatigue and fear of COVID-19 motivated Gen Z to disengage from social media and translated perceived information overload into social media users' discontinuance intention. However, as social media is considered the main means by which members of Gen Z maintained contact with each other during the lockdown, FoMO was seen to buffer the impact of social media fatigue and fear of COVID-19 on Gen Z's social media discontinuance intention. Our research provides unique and original evidence demonstrating the psychological mechanism associated with Gen Z's social media use during the outbreak of the COVID-19 pandemic in the UK and advances understanding of the 'side effects' of COVID-19 from social and psychological perspectives. We also highlight a series of practical implications for social media users, social media platform providers, and health officials, institutions, and organizations to consider in using social media in a more effective and sustainable manner during a global pandemic and in the post-pandemic time. The present study has several limitations, such as utilizing cross-sectional data and focusing on one age group and one country during the initial pandemic phase. However, in light of the continuing pandemic, such limitations also have important implications for avenues of future work.

CRediT authorship contribution statement

Hongfei Liu: Conceptualization, Methodology, Writing - original draft. **Wentong Liu:** Methodology, Formal analysis, Writing - original draft. **Vignesh Yoganathan:** Writing - original draft, Writing - review & editing. **Victoria-Sophie Osburg:** Writing - original draft, Writing - review & editing.

Declaration of Competing Interest

None

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