

# The Experiences of Compulsive Buying Behaviors in Jordan during the pandemic of COVID 19: a Descriptive Correlational Study

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**Introduction:** As cases of COVID 19 are on the rise globally. People were forced to quarantine or curfew, leading them to start worrying about their future and to buy products like food, hygiene, and medication compulsively for future uses.

**Methods:** The study adopted a descriptive correlational design. The total sample was 998 based on defined inclusion criteria. The researchers distributed the questionnaires in May 2020 via a google form link through social media platforms. We used a self-report instrument as a measurement tool to investigate the extents of the research phenomena, and it consists of three sections: (1) demographical data (2) participant shopping profile during COVID 19, and (3) compulsive buying behaviors scale.

**Results:** The majority of the participants were in their thirty's and fourth's 52.5% (524), female 60.7% (606), married 61.8% (617), had a bachelor's degree 57.8% (577), and employed 61.6% (616). During the pandemic of COVID 19, more than 65% of them requested their items through the online application, the majority of these process occurred once weekly 49.5% (494), the cost in its overall less than 210 U.S. Dollar 52.2% (522) and focused on food products (91.88%) followed personal self-protective measures (51.9%) and medication (8.71%)

**Discussion:** Various infectious diseases have significant associations with numerous compulsive behaviors and mental health problems. During the outbreak of infectious diseases, individuals engage in compulsive buying, have an overwhelming compulsion to purchase, and are influenced by their emotional status, media coverage, social networking, and others.

**Conclusion:** Health awareness campaigns and psycho-education, debunking confusion on the pandemic and its psychological impacts can be more effectively implemented across official channels and social media networks

**Keywords:** Compulsive Buying, Coronavirus, Quarantine, Lockdown

## **Background**

Coronaviruses are a genus of viruses that may cause diseases such as common cold, extreme Acute Respiratory Syndrome (SARS), and Middle East Respiratory Syndrome (MERS). Scientists reported a new coronavirus as the source of an outbreak of disease that occurred in China in 2019 and has maintained global recognition (Li et al., 2020).

The epidemic of coronavirus disease (COVID-19) has been proclaimed as a public health emergency and has drawn tremendous interest worldwide (World Health Organization) (Organization, 2020). During COVID-19, many governments have taken stringent quarantine steps and launched an immediate plan of lockdown and curfew to deter further spread and containment of infectious diseases around the globe (Brooks et al., 2020). Global governments stopped the travels between their nations, study at university, and school suspended and transformed later to online; people are required to stay in their homes and to maintain their social distancing when they go for necessary shopping (Cetron & Landwirth, 2005).

People who develop symptoms or have similar symptoms were quarantined for 14 days (Wilder-Smith & Freedman, 2020). Other people are forced for curfew and staying home with minimum physical mobility in their hometowns; During that, they receive instructions about what to do and how they can help their family members (Control et al., 2003). People should maintain their self-awareness, personal hygiene, healthy food, and physical activity as they stay at home. They have also to handle their work and take care of their children and families. As a result, they may postpone or cancel a crucial public meeting and private gathering (Bedford et al., 2020). Therefore, quarantine, shutdown, or curfew are not favorable decisions for most people, and it has psychosocial, physical, and adverse emotional effects (Brooks et al., 2020).

The effect of corona emergency plans across the globe on human physical wellbeing involves limits on physical mobility that may contribute to severe physical health problems such as weight gain, disrupting sleep habits, substance misuse, and cardiovascular disease (Ho, Chee, & Ho, 2020). The rhythm of healthy living can also be disrupted by unnecessary panics behaviors connected with the situation (Fineberg et al., 2020).

Most reviewed articles reported emotional and psychological impact of quarantine/ shutdown including the feeling of anger, fear, stress, anxiety, restlessness, agitation, helpless, loss of interest in usual activities depression, insomnia, and obsessive-compulsive symptoms (Caleo et al., 2018; Jeong et al., 2016; Wang et al., 2011; Xiao, 2020). Also, quarantine individuals recorded becoming bored and frustrated due to their knowledge with lifestyle adjustments from active to sedentary (Jeong et al., 2016). Study reports showed that services from public health agencies were insufficient. That is, participants reported getting their masks and thermometers

late or not at all. Food, water, and other products were only intermittently distributed and had taken a long time to arrive (Pellecchia, Crestani, Decroo, Van den Bergh, & Al-Kourdi, 2015) leading them to panic or compulsive shopping and left markets' shelves empty for others to suffer a shortage of stocks (Teh et al., 2012; Zhou et al., 2020).

Compulsive purchases are described as regular purchasing or purchasing issues that are perceived as addictive, disruptive, and/or unnecessary or repeated purchases of products that are not necessary or purchases for more extended periods than expected (Sharma, Narang, Rajender, & Bhatia, 2009). Studies on this field estimated that the prevalence of compulsive buying ranges between 2% to 8%. The majority of affected people are females among their 30s (Black, 2007; Kessler et al., 2006). Anxiety and depressive mood disorders, personality disorders, and substance use disorders have also been associated with compulsive buying (Vasiliu & Vasile, 2017). Other studies also linked compulsive buying with internet overuse, low self-esteem, negative emotional state, and cognitive overload (Rose & Dhandayudham, 2014). Nevertheless, purchasing problems, impulses, or behavior cause intense fear, are time-intensive, substantially conflict with social, emotional, or corporate interaction, and result in financial difficulties in advance (Addo, Jiaming, Kulbo, & Liangqiang, 2020).

As soon as reports of a novel coronavirus in China appeared in early 2020, the National Epidemics Committee and the Ministry of Health in Jordan on January approved several protocols to cope with the arrival of Coronavirus to the world, just a few weeks before the first case was discovered on March 2 (Kayed, 2020). Even though on March 14, in response to the rapid spread of the virus in countries around Jordan and around the world, Jordan had only one reported case of Coronavirus, the government suspended schools, banned public gatherings. It closed borders and airports (Kayed, 2020).

After learning that Coronavirus infected patients had taken part in a wedding in the city of Irbid, north of the capital, Amman, on March 17, the government announced a lockdown, which was later described as one of the strictest measures in the world (Picheta & Qiblawi, 2020). The curfew that lasted four days later was relaxed as government efforts to distribute food to communities had failed, and residents were able to walk from 10 am to 6 pm for shopping from local stores only and gradually allowed by online applications and delivery services. By reaching the case of 400, the lockdown included a ban on the individual owns a car, with the exception of health care service military system employees and governmental decision-maker (Picheta & Qiblawi, 2020)

On April 30, the Jordanian government moved to ease the lockdown and re-open the economy after only 451 cases had also been confirmed considering the financial impact of the lockdown in short and lengthy consequences. As a result, most sectors were allowed to resume work gradually, highlighting that some activities involving teaching, sports, public gatherings, public prayers in the mosque and the church remained prohibited, and a curfew remained in place after 6 pm and on Fridays.

As cases of COVID 19 are on the rise, the perpetrators of COVID are advised to self-quarantine in their homes with stringent isolation protocols followed by all family members. It is resulting

in a disturbance of daily life activities across the globe. People start to worry about their future, and some start buying food, hygiene, and storing it. Therefore, this study would increase the awareness about the patterns and impacts of the COVID-19 pandemic on panic purchasing. This becomes much more important to find this phenomenon due to the lockdown and restrictions on human communication and social connections. This study would enhance researchers to illustrate specific main issues that will shed light on the trend of dealing with the pandemic, quarantine, and its implications. The results of this research will serve as the foundation for the preparation and enhancement of family and neighborhood service structures for potential health issues arising in the future. This study aims to investigate the extent of compulsive buying behaviors during the pandemic of COVID 19 and its relation to the consumer's demographical background and shopping profile.

### **Research Design**

The researcher keen to obtain approval for conducting the study from the College of Nursing's Research Ethics Committee at Jarash university. The researchers used a descriptive correlational study design to achieve the analysis objectives among the study participants. The sample size was calculated based on Cohen's (1987) formula. Given a small effect size of 0.10, the power of 80 % ad  $\alpha$  of 0.05, the sample size will be 1571 participants. The study consisted of all participants who can (1) read the English language, (2) older than 18 years, (3) live in a country in Jordan (4) able to give consent form. Participants who declined to participate in the study were unfortunately excluded.

After obtaining the college research committee's approval, the researchers prepared and presented the survey through the application of google form and then distributed it through social media platforms via a link. The researchers approached the participant with written informed consent in which the nature, intent, methodology, and potential benefits of the study were clarified, ensuring that their participation in the survey is entirely voluntary and anonymous. The participants then provided with an in-depth- self-report questionnaire determining their demographical background, history of shopping patterns during COVID 19, and compulsive buying behaviors. The researchers distributed the survey in May 2020, and it took approximately 10- 15 min to be filled.

### **Study Instruments**

The researchers keen to use a self-report instrument as a tool measurement to investigate the extents of the research phenomena, and it consists of three sections: (1) demographical data (2) participant shopping profile during COVID 19, and (3) compulsive buying behaviors scale.

The first section reported demographic features, such as gender, age, living arrangements, marital status, educational level, employment history, and others. The second section was related to the participant shopping pattern, such as the method of shopping during COVID 19, the frequency of shopping behaviors during COVID 19, the average spent on shopping behaviors,

and others. In contrast, the third section requested the participant to rate the responses on the compulsive buying behavior scale.

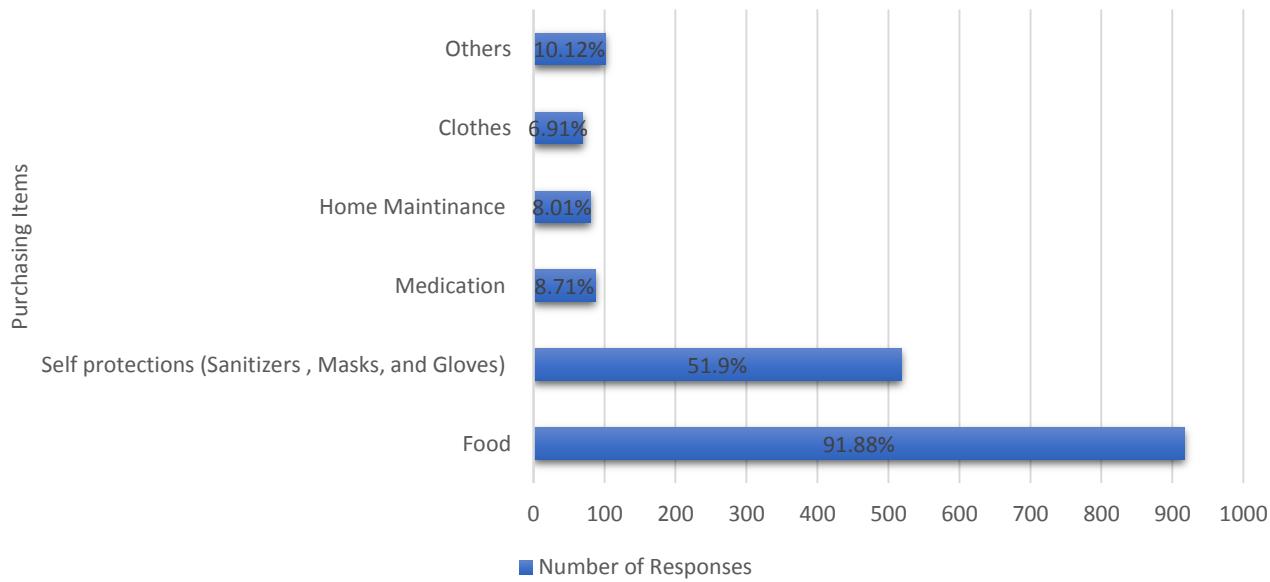
The Compulsive Buying Behaviors Scale has been developed by Valence and research team to investigate the probable causes of compulsive buying and to proposes a conceptual framework to explain this phenomenon using an appropriate measuring scale. The scale consists of 11 items using a 5-point Likert scale. The score ranged from 11 to 55, whereas the lowest score indicates lower emotional intelligence; the tool demonstrates content validity, factorial validity, and test-retest reliability. The study researchers keened to take permission to use the distributed tools before distributing the questionnaire.

### **Data Analysis**

This study's research analyzed the data at a significant point of 0.05 using the Social Sciences Statistical System (SPSS) software. Mean and standard deviations reflected the participants' age, and the compulsive buying behaviors score. However, this study utilized the percentages and frequencies to describe gender, marital status, living arrangements, level of education, medical and mental history, employment history, and shopping patterns during the pandemic of COVID 19. the study utilized the ANOVA test to determine the participant's differences in compulsive buying behaviors during the pandemic of COVID 19 regarding the participants' demographics and shopping patterns.

The researchers received 1076 responses though the online survey; after that, they attempted to do data cleaning for all missing information, un-completed questionnaire, incorrect, and not-eligible participation means that our study investigated 998 participants. The majority of the participants were Jordanian 96.2% (960), in their thirty's and fourth's 52.5% (524), female 60.7% (606), married 61.8% (617), had a bachelor degree 57.8% (577), and employed 61.6% (616). The study also indicated that most of the participants were involved in quarantine 55.5% (554). However, they don't suffer from any medical, 76.5% (763), or mental 81.7% (815) health issues.

Regarding the participants' shopping profile during the pandemic of COVID 19, more than 65% of them requested their items through the online application compared to onsite 15.3% (153) and delivery 17% (170) purchasing, the majority of these process occurred once weekly 49.5% (494) and cost in its overall less than 300 JOD (210 U.S. Dollar) 52.2% (522). The results of this study also highlighted that the participant's most common purchasing concerns were food products (91.88%) followed personal self protections (sanitizers, hygiene, masks, and glove) (51.9%) and medication (8.71%) (Figure 1).

**Figure 1: Frequencies of Purchasing Items among Study Participants during COVID 19 in Jordan**

The Compulsive Buying Behaviors Scale was tested for reliability among the study participants and obtained Cronbach's alpha of .800. The score of the participants ranged between 11 and 50; the mean score was 37.18. Overall, the results of this study showed a significant correlation between participant level of education ( $P=.007$ ), present of medical health condition ( $P=.024$ ), present of mental health condition ( $P=.001$ ), and the experiences of compulsive buying behaviors (Table 1).

Table 1: Distribution of compulsive buying experiences among participants demographical during the pandemic of COCID 19

Variable	Frequency and percentage	Significant at $p < 0.050$
<b>Age</b>		
Less than 30	33% (329)	Not significant
31-50	52.5% (524)	$F= .255$ $P=.775$
Above 50	14.5% (145)	
<b>Gender</b>		
Male	39.3% (392)	Not significant
Female	60.7% (606)	$F= 1.510$ $P=.210$
<b>Marital Status</b>		
Single	38.2% (381)	Not significant

Married	61.8% (617)	F= 1.071 <i>P</i> =.301
<b>Nationality</b>		
Jordanian	96.2% (960)	Not significant
Non- Jordanian	3.8% (38)	<i>F</i> = .043 <i>P</i> =.835
<b>Level of education</b>		
School based diploma	10.8% (108)	significant
Undergraduate	12% (120)	<i>F</i> = 4.082 <i>P</i> =.007
Postgraduate	57.8% (577)	
<b>Employment</b>		
Employed	61.6% (616)	Not significant
Not employed	38.4 (383)	<i>F</i> = 1.140 <i>P</i> =.286
<b>A present of a medical condition</b>		
Yes	23.5% (235)	significant
No	76.5% (763)	<i>F</i> = 5,080 <i>P</i> =.024
<b>The presence of a mental health condition</b>		
Yes	18.3% (183)	significant
No	81.7% (815)	<i>F</i> = 10.693 <i>P</i> =.001
<b>Quarantine</b>		
Yes	55.5% (554)	Not significant
No	44.5% (444)	<i>F</i> = .448 <i>P</i> =.504

Regarding participant's history of buying patterns during the pandemic of COVID 19, the results postulated no significant correlation between compulsive buying behaviors and participants shopping type (*P*=.087), shopping frequencies (*P*=.657), and costs (*P*=.209) (Tabl2 2).

Table 2: Distribution of compulsive buying experiences among participants shopping history during the pandemic of COCID 19

Variable	Frequency and percentage	Significant at <i>p</i> < 0.050
<b>Shopping type</b>		
Online	67.5% (674)	Not significant

Onsite	15.3% (153)	F= 2.447 <i>P</i> =.087
Delivery	17% (170)	
<b>Shopping frequency</b>		
Once-daily	21.6% (216)	Not significant
Once weekly	49.5% (494)	<i>F</i> = .537 <i>P</i> =.657
Once every two weeks	17.4% (174)	
Once monthly	11.4% (114)	
<b>Shopping cost</b>		
Less than 300 JOD	52.2% (522)	Not significant
300- 500 JOD	27% (269)	<i>F</i> = 1.568 <i>P</i> =.209
Above 500 JOD	20.8% (209)	

## Discussion

To our knowledge and despite the considerable health concerns related to the pandemic of COVID 19 on medical and psychological wellbeing that is highlighted by many current studies, none examined the extent of compulsive buying behaviors during the pandemic of COVID 19 and its relation to the consumer's demographical background and shopping profile.

This research is a first move towards understanding the predictors of this phenomenon during COVID 19. Our study showed that the mean score of compulsive buying behaviors among the study participants ranged between 11 and 50. The mean score was 37.18, which indicates a moderate experience level compared to the previous study conducted in the UAE (Thomas, Al-Menhal, & Humeidan, 2016). The study also illustrated a significant correlation between the experiences of compulsive buying behaviors and participant's level of education (*P*=.007), participant's history of medical health condition (*P*=.024), and mental health condition (*P*=.001). However, it failed to establish a correlation between the study phenomena and the participants' shopping type (*P*=.087), shopping frequencies (*P*=.657), and shopping costs (*P*=.209).

The world has been in the hands of a new and changing danger for the last three months. The new year saw the launch of Corona Virus Disease 2019 (COVID-19), triggered by the novel coronavirus SARS-CoV-2, which took a little longer than a month to become a pandemic. Borders have been locked down worldwide, currencies crippled, and billions of citizens quarantined or imprisoned in their own homes.

Quarantine distinguishes individuals directly from an infectious agent (and thus at risk of disease) from the population at large. For specific individuals, quarantine may cause severe social, mental, and financial problems. Quarantine calls for persons at risk to be separated and to obey suitable protection measures and effective coping strategies within their borders. (Hawryluck et al., 2004). While public health authorities are trying to identify a strategy for control, the critical approaches proposed by the World Health Organization (WHO) and the Center for Disease Control and Prevention (CDC) are physical barriers, hand and respiratory

hygiene, health food, and indoors physical activities (Banerjee, 2020). Combine this fear with the interruption of our regular social lives and everyday activities, a lengthy time of self-isolation. The unknown future leads the people for more shopping even though it involves braving lengthy queues and finding bare racks; it's not surprising that people try to go to the grocery store once or twice a month and line up early morning several times a week in preparing themselves for the coming days or weeks.

The Jordanian government has called on citizens to avoid overcrowding in shops and commercial markets and to pay attention not to accumulating food whose consumption is soon to expire, in addition to the high demand for a particular commodity which will contribute to the high price that will have a negative impact on consumers (Fayek, 2020).

However, despite the Jordanian government's reassurance of the abundance of its strategic food and goods, and soon after the declaration of its new steps to combat the Coronavirus in march 2020, people flocked to commercial centers and bakeries to hedge what could be endured in the days ahead of a global outbreak (Fayek, 2020).

In an article published in March 2020 by Al-Ghad newspaper, one of the widely circulated newspapers in Jordan, titled "After prudential decisions, Corona afflicts citizens with a shopping fever," the newspaper reported that, despite the official calls directed to citizens that they should not rush to buy goods, the markets were infected with such obsession represented by purchasing a various amount of food and other essential items (Al-Dajah, 2020).

Jordanian press reports also emphasized that the purchase process in some stores reached four times, which caused confusion in the supply due to the lack of storage space in these stores, the majority of these demands were vegetables, fruits, cleaning, and disinfection materials led the Jordanian authorities to impose on shops to sell under specific price ceilings for essential commodities under penalty of liability, after the prices of these items doubled (Al-Arasan, 2020).

The Center for Strategic Studies reported that the vast majority (74%) of the Jordanian citizens believe that the Coronavirus crisis will negatively and significantly affect the Jordanian economy. The reports showed that 34 percent had reported their willingness to stay at home for three days without buying, and 26 percent had no shopping for 7-10 days. Forty-one percent of the Jordanians who participated in this survey believed that the incoherence that occurred on the market as a result of the lockdown and curfew was the fear of food insufficiencies among people, while (26 %) believed that the reason for this was to protect the citizens (Studies, 2020)

Indeed, previous studies indicated that wherever infection strategies involve 'repetitive behaviors,' there is a risk of increasing obsessional disorders. This may not be evident in the active phase of the outbreak due to under-detection, disruption of medical services, and alternative public health priorities (Mak, Chu, Pan, Yiu, & Chan, 2009). Tucci et al. (2017) investigated the impacts of emerging infectious diseases and found that various infectious diseases have significant associations with numerous compulsive disorders and mental health problems (Tucci et al., 2017). Similarly, seen among those who hoard, and their anxiety can increase in response to the infectious disease following quarantine and lockdown. It also refers to those who used medications to treat flu-like symptoms such as analgesics, anti-inflammatory,

and anti-viral drugs (Banerjee, 2020). In previous outbreaks such as Severe Acute Respiratory Syndrome (SARS), Middle East Respiratory Syndrome (MERS), and Influenza, the exacerbation of obsessive behaviors were well documented, particularly within 6–12 months of the cessation of the outbreak (Mak et al., 2009).

Previous research explored the cause of impulsive customer purchasing behavior and categorized these factors according to human attributes, age, emotional intelligence, economic, media, and other characteristics (Mihić & Kursan, 2010). Both media coverage and emotional intelligence can play a role in compulsive buying during a stressful situation; Emotional Intelligence reflects the ability of the individual to sharply and regularly perceive, understand, direct, and react to emotions that can override thoughts, promote relationships, and influence behavior (Kumar, Chowdhury, Panwar, & Kosala; Patel, 2017).

Studies found that the higher the emotional intelligence people have, the lower the impulsive buying behavior they do unless other variables within this primary effect relationship contribute (Zia, Shafique, & Rajput, 2018). Emotional intelligence in the field of self-motivation by shopping or impulsive purchasing leads people to consider their emotions as weak and seek compensative strategies than ever before (Hejase, Skaff, El Skaff, & Hejase, 2018).

Studies found that impulse shopping is associated with hedonic behavior, with an individual engaging in impulse shopping due to feelings and emotional motivations, rather than considering the functional benefits (Farid & Ali, 2018). Consumers engage in compulsive buying, have an overwhelming compulsion to purchase, because they are more concerned with their emotional state than with their cognitive one, they have no time to make immediate decisions, so there is a restricted life or complete lack of cognitive ability in decision-making, which is influenced by emotional appeals (Hejase et al., 2018). Therefore, while the impulsive behavior presence increases, the individual expectations involve believing that a person can alter his or her negative mood by engaging more in these activities (Al-Masri, 2020).

The demand for sanitizers, soaps, and gloves has skyrocketed as hand washing is considered one of the safest anti-infection precautions. Each media source emphasizes the importance of hygienic measures, hand-washing, and prevention of contamination. (Banerjee, 2020). Rubin et al. (2010) conducted a study to examine the impacts of communication and media on the general population of the United Kingdom at the time of the outbreak of influenza A (H1N1; swine flu) and found that access to media and disease-related advertisements raised the purchase of disinfectant gels and enhanced worries regarding both preventions both adaptation strategies (Rubin, Potts, & Michie, 2010). Nitzan and Libai (2011) found out that social networking influences may occur when people exchange information among each other (Nitzan & Libai, 2011), and can deviate from one's own experiences (Chomvilailuk & Butcher, 2014). For example, one may receive from a family member or a friend experience of the inaccessibility of a particular item. Suppose his / her connected persons have a poor experience in finding these products, staying in long waiting lines, or experiencing unforeseen costs, there may be an impact on the customer who decides shopping for the products in need.

The result of this study makes a unique contribution to the literature on COVID 19 and compulsive buying behaviors. We find that wherever infection approaches include 'repetitive behaviors,' there is a chance that obsessional disorders will increase. Jordanian were in a hurry to secure themselves with necessary supplies for the lockdown and curfew. However, Our analysis shows some limitations of which the sample size and survey methodology are the key points. It would be very beneficial to study these phenomena in a large sample with a diverse geo-sociodemographic interest. Self-reported questionnaires have an intrinsic disadvantage of the participants' accurate answers that might be influenced by participants' previous experiences, psychological wellbeing, cultural differences, and social support. Future studies should also discuss more predictors for experiencing compulsive buying during the outbreak of infectious diseases that can lead to quarantine, lockdown, or curfew.

### **Conclusion**

As the COVID 19 pandemic is rapidly spreading throughout the world, it causes a great deal of fear and anxiety due to its nature and the strict measures of quarantine, lockdown, and curfew. The consequences of such actions led the people to start worrying about their future and to buy products like food, hygiene, and medication compulsively for future uses. The literature on the impacts of COVID 19 on mental health is increasing rapidly. However, none of them examined the extend of compulsive buying behaviors during the pandemic of COVID 19 in Jordan. Thus, our study aimed to investigate the extent of compulsive buying behaviors during the pandemic of COVID 19 and its relation to the consumer's demographical background and shopping profile. Our results indicated a moderate compulsive buy behavior among the study participants. However, it also illustrated a significant correlation between the experiences of compulsive buying behaviors and participant's level of education, participant history of medical health condition, and mental health condition. On the other hand, it failed to establish a correlation between the study phenomena and the participants' shopping type, shopping frequencies, and shopping costs.

The results of the present study illustrate the evolving trend of COVID 19 experience in the field compulsive buying behaviors. Therefore, the researchers suggest a regular evaluation of this phenomenon in terms of health, education, and safety for any possible infectious outbreaks shortly. Health awareness programs or Psychoeducation of the individuals and families, debunking misinformation about the pandemic, and its psychological impacts can be introduced more effectively throughout the official channels and social media platforms. Improvements in coping skills and anxiety relief strategies can merit further study as useful approaches for initiatives aimed at compulsive buying behaviors during the infectious outbreaks and global lockdown.

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