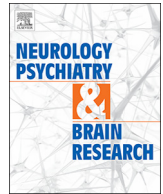




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Panic buying: An insight from the content analysis of media reports during COVID-19 pandemic

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ABSTRACT

Background: Panic buying is an emerging phenomenon observed during, but not restricted to, pandemic.

Aim: We aimed to evaluate the nature, extent, and impact of panic buying as reported in the media.

Methods: This study was conducted by collecting the information from the English media reports published till 22nd May 2020. A structured format was developed to collect data. Searching was done by using the keyword “panic buying”. We have excluded the social media posts discussing the panic buying.

Results: The majority of media reporting was from the USA (40.7 %), and about 46 % of reports highlighted the scarce item. Approximately 82 % of the reports presented the causes of panic buying whereas almost 80 % report covered the impact of it. About 25.7 % of reports highlighted the rumor about panic buying and only 9.3 % of reports blamed the government. Only 27.1 % reports described the remedial measures, 30.8 % reports conferred the news on the psychology behind panic buying and 67.3 % news displayed the images of empty shelves.

Conclusion: A high proportion of reports on panic buying have been found from the developed countries discussing the causes & impact of panic buying on the basis of expert opinion.

1. Introduction

Deleterious effects of infectious pandemics on mental health and well-being have been noted consistently over the last two decades (Jennings, Monto, Chan, Szucs, & Nicholson, 2008; Kar, Yasir Arafat, Kabir, Sharma, & Saxena, 2020; Sim, Chua, Vieta, & Fernandez, 2020). As the COVID-19 pandemic continues to spread and ravage nations globally, its impact on mental and psychosocial health is also receiving considerable attention. Majority of the available literature has focused on common mental health sequelae such as depression, anxiety, stress, substance use, loneliness and its impact in general population as well as vulnerable groups such as frontline health care workers, homeless, elderly and pregnant women (Kar et al., 2020).

An interesting social phenomenon observed during, but not restricted to, pandemic times is panic buying (PB). It may refer to the

phenomenon of a sudden increase in buying of one or more essential goods in excess of regular need provoked by adversity, usually a disaster or an outbreak resulting in an imbalance between supply and demand. The phenomenon is poorly understood due to many reasons. For starters, its exact psychological underpinnings are unclear; a sense of perceived scarcity, need to be in control, social learning, and lack of confidence in the authorities have all been proposed as potential drivers of PB (Arafat, Kar, Marthoenis et al., 2020).

Further, its behavioral phenotypes may vary; while for many, it is an impulsive behavior, for some, it may occur after planning. Likewise, it may be seen during times of adversity or ceremonial occasions (festivals) and the amounts purchased may be large or small depending upon perceived need. Finally, the PB is a transdisciplinary construct spanning the realms of psychology, marketing and supply chain management, economics, sociology, public health, political administration and

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disaster management (Arafat, Kar, & Kabir, 2020). Perhaps, it is also due to this reason that no field has really taken the lead to research the phenomenon adequately. Moreover, studying the panic buying behavior is challenging in multiple domains as it mostly appears during emergency situations especially disasters or epidemics.

PB is a socially relevant phenomenon. Stockpiling of commodities can trigger shortages and stoke price rise. Although this may be temporary, it disproportionately affects vulnerable people such as those in rural areas and those with low incomes more than others. This may create a sense of fear, anxiety, insecurity, and panic among those affected. Given the surge in global reports of PB in the wake of the coronavirus pandemic, the time seems ripe to study the phenomenon in more detail and address the many knowledge gaps in this area. Media plays an important role in spreading the news; disseminate the photos of empty shelves of the supermarkets which in turn increase the fear and anxiety among the people (Arafat, Kar, Marthoenis et al., 2020). On the other hand media can play a vital role in controlling PB by disseminating healthy messages and reducing fear. Media can also change the social cognition regarding scarcity, or supply chain status of the goods (Arafat, Kar, Kabir et al., 2020). With this background, we carried out the present study with the objective of evaluating the nature, extent, and impact of panic buying as reported in the media during the COVID-19 pandemic.

2. Methods

2.1. Data collection

This was cross-sectional study where we scrutinized the media reports of PB from the English media reports published till 22nd May 2020. A structured format was developed by the investigators to collect data. All online news article (with or without print version), news channel reports, news blogs, personal opinions and research panel discussions (not a journal article) were included. Searching was done by three investigators using the keyword “panic buying”. We have excluded the social media posts discussing the panic buying. Data checking and cleaning was done by two investigators. Missing and incomplete data were discarded. Data was analyzed using descriptive statistics. Information is plotted in terms of percentages, proportions and ratios.

2.2. The instrument

The structured questionnaire for collection of information from the media reports included: country of publication of news report, country to which the news report refers to, type of newspaper/post, name of the newspaper, region (city) of publication, dates of publication, scarce object for panic buying, content of the media report, reference of similar event of panic buying in the past, causal attributions to panic buying, context of panic buying and overall comments on panic buying.

2.3. Ethical aspects

As the study reviewed already published papers, no formal ethical clearance was sought for conducting it.

3. Results

Our search revealed a total of 214 reports from different search engines. The majority of media reporting on panic buying was from the USA (40.7 %), UK (22 %), and India (13.6 %). Only 7 % of news covered panic buying from Australia and 3.3 % from Singapore. Approximately 0.9 % of news came from China on panic buying and 1.4 % from North Korea (Table 1). Majority of the reports (36.9 %) were collected from the media with dual version (online and print media) and second important source was online only (30.4 %), 20.1 %

Table 1

News report belongs to the country (n = 214).

Name of the country	Frequency	Percentage
Australia	15	7.0
Canada	2	0.9
China	2	0.9
Dubai	1	0.5
Europe	1	0.5
Germany	1	0.5
Ghana	1	0.5
Global	3	1.4
Hong Kong	1	0.5
India	29	13.6
Ireland	1	0.5
Malaysia	1	0.5
New Zealand	1	0.5
North Korea	3	1.4
Qatar	2	0.9
Singapore	7	3.3
South Africa	5	2.3
Taiwan	1	0.5
Thailand	1	0.5
Turkey	1	0.5
UK	47	22.0
USA	87	40.7
USA and Canada	1	0.5
Total	214	100.0

UK = United Kingdom; USA = United States of America.

Table 2

Source of reports on panic buying (n = 214).

Source	Frequency	Percentage
News blog/ personal opinion/others	26	12.1
News channels	43	20.1
Online & Print	79	36.9
Online only	65	30.4
Research report	1	.5
Total	214	100.0

information collected from news channels and a very little amount (0.5 %) retrieved from a research report (Table 2). A total of 46 % of reports highlighted the scarce item related to panic buying and 54 % news report did not mention the item related to the event. Approximately 82 % of media reports presented the causes of panic buying whereas almost 80 % report covered the impact of it, 25.7 % reports highlighted the rumor about panic buying, and only 9.3 % reports blamed the government (Table 3). Only 27.1 % of the reports mentioned the remedial measures, and 30.8 % reports conferred the psychology behind it. About 67.3 % news displayed the images of empty shelves and 36.4 % cases where the news compared the issue with a past event (Table 3).

4. Discussions

Panic buying is a contemporary issue with a dearth of research exploring its various aspects. Here we aimed to evaluate the nature, extent, and impact of panic buying as reported in the media during the COVID-19 pandemic. The main findings of the study were that bulk of the media reports on panic buying come from developed nations (Table 1). Nearly half the report explicitly mentioned the scarce item while others were non-committal. The majority of the news reports discussed the causes and impact of panic buying. Potentially helpful characteristics such as discussing the psychological underpinnings of the behavior, corrective governmental action, and suggesting remedial measures were included less frequently while others such as mentioning expert opinion and discussing public relations were more commonly reported.

Notably, harmful reporting practices such as referring to panic

Table 3
Details of reports on panic buying (n = 214).

Categories of information	Frequency	Percentage
Discusses cause of panic buying		
No	38	17.8
Yes	176	82.2
Discusses the impact of panic buying		
No	43	20.1
Yes	171	79.9
Discusses about rumor		
No	159	74.3
Yes	55	25.7
Discusses about the government action		
No	121	56.5
Yes	93	43.5
Media blames government		
No	194	90.7
Yes	20	9.3
Media blames public		
No	145	67.8
Yes	69	32.2
Media blames business		
No	186	86.9
Yes	28	13.1
Media suggests remedial measures		
No	156	72.9
Yes	58	27.1
Discusses psychology of panic buying		
No	148	69.2
Yes	66	30.8
Discusses expert opinion		
No	94	43.9
Yes	120	56.1
Discusses public relation		
No	74	34.6
Yes	140	65.4
Presents future forecasting		
No	163	76.8
Yes	51	23.2
Dramatizes the panic buying		
No	186	86.9
Yes	28	13.1
Shows images of empty shelves		
No	70	32.7
Yes	144	67.3
Refers to panic buying directly/indirectly		
No	3	1.4
Yes	211	98.6
Refers to any similar incident to past		
No	136	63.6
Yes	78	36.4

buying and including photographs of empty supermarket shelves were rampant. Other commonly noted media transgressions were blaming the public, government, and business houses for the shortage of commodities, dramatizing panic buying, and future forecasting. Sometimes, rumors spread in the media (particularly, social media) compel people to indulge in panic buying (Hou, Du, Jiang, Zhou, & Lin, 2020). In a study conducted in China during this COVID-19 outbreak, it was found that sudden spread of rumors and misinformation led to development of negative emotions among people and subsequent panic buying (Hou et al., 2020). It has been recommended by the researchers that early clarification of the misinformation and concerns of people effectively may prevent the irrational panic buying behavior. A study from Iraq, also reported that social media posts provoked anxiety and panic buying (Ahmad & Murad, 2020). A study from India's worst hit city, Mumbai reported panic buying during this COVID-19 pandemic, which resulted in black marketing of essential products including sanitizers (Singh & Rakshit, 2020).

Panic buying is newsworthy and should be reported for the benefit of the larger population. Our findings suggest that the media need to exercise greater caution and responsibility in reporting panic buying so

that the public is assuaged (Arafat, Kar, Kabir et al., 2020). As important as reporting panic buying is the need to present the information and data that the public needs to make informed decisions. It is quite plausible that reading about panic buying or visuals of empty shopping shelves may lead to more people indulging in the same behavior: social learning theory suggests as much (Arafat, Kar, Marthoenis et al., 2020; Sim et al., 2020). Hence, it is essential that the media shuns rumor-mongering and future forecasting while reporting panic buying. In the developing countries, people seem to have a lot of mistrust on the public representatives and government. When the rumor spreads, this mistrust may result in panic buying behavior (Hossain, Ferdous, & Siddique, 2020).

Reporting helpful aspects such as psychological underpinnings of panic buying and expert opinion might help more people to think rationally for themselves and make calculated decisions (Arafat, Kar, Marthoenis et al., 2020). Reframing the issue as a community issue rather than an individual issue that disproportionately hurts vulnerable groups may invoke rethinking of action among those relatively well-heeled. The simple message could be disseminated that the supplies have not run out, yet, but may do if everyone indulges in hoarding and panic buying (Arafat, Kar, Kabir et al., 2020).

4.1. Strengths of the study

There is an extreme dearth of empirical studies on panic buying behavior. This study would act as one of the baseline researches in the contemporary field.

4.2. Limitations of the study

The current study has several limitations. Firstly, the study analyzed the media reports which should not be considered as quality data. Secondly, the search strategy was not systematic. Thirdly, the number of reports is relatively small. Fourthly, the assessment was not done on the basis of any established instrument. Fifthly, we included only the English language. Sixthly, it was analyzed based on the responses during the COVID-19 pandemic when people may have anxious and fearful condition.

4.3. Recommendations

Further empirical studies are warranted as an urgent basis to explore the phenomenon as well as to take necessary actions to prevent it during public health emergency situations. Qualitative studies would be worthy to understand the psychological explanations. A harmonized initiative from all the stakeholders (such as public health, mental health, public administration, media, marketing, supply chain, law-enforcing agencies, and social scientist) is necessary to handle the issue. Also towards a reporting of panic buying media guidelines might be necessary in order to reduce panic and fear among the readers as the reports of panic buying might lead to a cycle of buying and stockpiling more.

5. Conclusion

Media may play a pivotal role in the prevention of panic buying and limit the spread of rumor through sensible reporting. A high proportion of reports were published from the developed countries discussing the causes & impact of panic buying on the basis of the opinion of experts. There is a need for further studies to explore the issue as well as to prevent the episodes.

Authors' contributions

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Drafting of the manuscript: SMY Arafat, SK Kar, V Menon, P Sharma, m marthoenis, R Kabir

Critical revision of the manuscript: All authors

Final Approval of the manuscript: All authors

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Ethical statement

This study was conducted by complying with the declaration of Helsinki 1964. As the study reviewed already published papers during the emergency situation of COVID-19 pandemic, no formal ethical clearance was sought for conducting it.

Declaration of Competing Interest

None.

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None.

Appendix A. Supplementary data

Supplementary material related to this article can be found, in the

online version, at doi:<https://doi.org/10.1016/j.npbr.2020.07.002>.

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