Panic Buying in Bangladesh: An Exploration of Media Reports

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Background: As an erratic human behavior, panic buying is an understudied research area. Although panic buying has been reported in the past, it has not been studied systematically in Bangladesh.

Aim: This study aimed to explore the characteristics of panic buying episodes in Bangladesh in comparison to current concepts.

Methods: A retrospective and explorative search were done using the search engine Google on November 6, 2020, with the search term “panic buying in Bangladesh.” All the available news reports published in the English language were extracted. A thorough content analysis was done focusing on the study objectives.

Results: From the initial search, a total of 30 reports were extracted. However, six reports were not included based upon the exclusion criteria, resulting in an analysis of 24 reports. Five panic buying episodes were identified, discussing the precipitating events, responsible factors, goods acquired through panic buying, and prevention measures. Flood, curfew, COVID-19, and export ban were found to be precipitating events. Media reports frequently mentioned prevention strategies, expert opinion, supply chain status, rationing, and government action. The reported goods that were panic bought were items necessary for daily living such as rice, oil, spices, and safety products such as hand sanitizer and masks.

Conclusion: The study revealed preliminary findings on panic buying in Bangladesh; however, they are aligned with the current concept of it. Further empirical studies are warranted to see the geographical variation, precise factors, and to test the culturally appropriate controlling measures.

Keywords: panic buying, Bangladesh, news reports, content analysis, COVID-19
INTRODUCTION

Panic buying (PB) is an erratic human behavior that has been noticed in at least 93 countries all over the world during the COVID-19 pandemic (1). Outbreaks of infectious diseases can trigger feelings of uncertainty and violate an individual’s sense of control (2, 3). Fueled by concerns about running out of certain items and goods, people tend to indulge in panic buying which gives them a semblance of control over a situation (1). Panic buying has been defined as “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” (4). Several important aspects have been considered for PB, such as a sharp increase in the purchase of important necessary goods in excess of needs, usually precipitated by adverse events. It may be impulsive or well-planned (5).

A previous study also postulated a causative model of PB mentioning that any adverse precipitating event usually stimulates this behavior (1). As per the model, the adverse stimuli act as precipitating events and initiate the behavior (1). Subsequently, secondary factors (psychosocial construct and information system), and tertiary factors (increased demand, the necessity of the product, supply chain, and anticipation of price hike) interact and shape it (1) (Figure 1). Several psychological factors have been postulated such as perceived scarcity, gaining control, fear of uncertainty, media influence, social behavior explaining the PB (1, 2). One study identified that a perceived scarcity, increased demand, necessary goods, the anticipation of price hike, any adverse situations, rumors, psychological reactions, social influences, a lack of trust in authority (government action), and experience were the attributed factors of PB (1).

PB has many negative effects such as disruption of supply chains, artificial commodity shortages, and stoke price rise. Furthermore, large crowds and queues appearing in retail spaces and stores could result in further clusters. Some prevention strategies have been proposed such as responsible media reporting, kinship promotion, rationing, assurance from the authority, some psychological measures to prevent the episodes (6, 7).

![FIGURE 1 | Responsible factors for panic buying [adapted from (1)].](image-url)
Given this scenario, there is a need for further research into the precipitating factors of PB, evaluating the responsible factors, and possible mitigating strategies. Country-specific research on PB is limited though, and it is crucial to consider prevention strategies. Against this background, we conducted the present analysis to assess the characteristics of panic buying episodes in Bangladesh, a populous country in South-East Asia. In particular, we aimed to evaluate precipitating events, responsible factors, goods of panic buying, and control strategies. Driven by previous research methods in PB, we used media reports to identify articles related to PB for analysis. The goal was to provide country-specific data that may inform management and prevention strategies to control PB.

**MATERIALS AND METHODS**

**Data Collection**

A retrospective and explorative search were done in Google on November 6, 2020, with the search term “panic buying in Bangladesh.” All the available news reports published in the English language were extracted. A thorough content analysis was done focusing on the study objectives. A method of three previous similar studies was followed to extract the reports, analyze the contents, identify the panic buying goods, assess the media reports, trace the responsible factors, and mention the controlling strategies (1, 4, 6). The detailed data extraction is outlined in Figure 2.

**Inclusion Criteria**

The inclusion criteria for this analysis include reports from any report discussing panic buying from the media covering news, blogs, personal views, opinions that were published in English. Vernacular (Bangla) reports were not considered due to a lack of specification of the exact Bangla word for “panic buying.”

**Exclusion Criteria**

Social media posts, scholarly articles, duplications, and news of the panic buying behaviors of Bangladeshis living outside Bangladesh were excluded from the study. Social media posts were excluded because they are supposed to be more emotionally charged and are very often biased. We excluded scholarly articles because we aimed to assess primary observations reported in the media. Various types of scholarly articles with various objectives would dislocate the research focus. Moreover, conformity bias, group-thinking, and herd behavior may be considered as potential sources of biases in social media posts (1).
Statistical Analysis
We used the Microsoft Excel spreadsheet 2019 version for data coding. As a preliminary explorative study detail, statistical analysis was not performed.

Ethical Statement
The study was conducted in compliance with the declaration of Helsinki (1964). As we analyzed publicly available media reports, no formal ethical approval was obtained.

RESULTS
From the initial extraction, a total of 30 reports were retrieved. However, six reports were dropped after considering the exclusion criteria, resulting in the analysis of 24 reports (Figure 1). From the 24 reports, five panic buying episodes were identified and the precipitating events, responsible factors, goods of panic buying, and prevention measures were discussed.

Precipitating Events
From the reports, flood, curfew, COVID-19, and export bans were found to be precipitating events that initiated the PB. All the reported episodes had a precipitating event like a flood, curfew, COVID-19, and export ban of onion (Table 1).

Responsible Factors
Several attributing factors were identified from the reports such as rumor of danger (flood), curfew, policy ban, uncertainty, the anticipation of an impending lockdown, increased demand, anticipation of price hike, and anticipation of short supply (Table 1).

Goods of Panic Buying
The reported goods are necessary for daily living such as rice, sugar, salt, onion, pulse, potatoes, spices, masks, sanitizers, toilet paper, flour, lentil, pulse, oil, milk powder, chicken, fish, beef, egg, garlic, ginger, biscuits, baby diaper, mosquito coils, soaps, hygiene products, noodles, drugs (antibiotics, cough syrup, and anticoagulants), fever medicine, hydroxychloroquine, dexamethasone, ivermectin, montelukast, doxofylline, salbutamol, some vitamin tablets, and pulse oximeter (Table 1).

Prevention Strategies
Media reports frequently mentioned prevention strategies, expert opinion, supply chain status, rationing, and government action. Raising awareness, selling goods at a lower price by the government, formulation of the special monitoring team, punishment to malevolent sellers, dissemination of stock status to the general people, assurance of stocks, import from alternative sources, reduced use of goods (onion), rationing while selling from the super shops, publishing circulars in newspapers to raise awareness, and a reduction of import duty were the controlling measures identified by the analysis.

DISCUSSION
Panic buying is an under-researched area even though it is common behavior during emergencies. This study aimed to identify the characteristics of panic buying episodes in Bangladesh in comparison to current concepts. We checked 24 published news reports (Table 1) to identify the precipitating events, products, events, responsible factors, goods of panic buying, and prevention measures. Five panic buying episodes were identified.

Current Concepts of PB
From the available evidence, we established that PB usually starts with an adverse stimulus, and people usually buy necessary goods in response to several psychological reactions (1–4). Media has a bidirectional role on PB which can either control or exacerbate (6, 7). Controlling media reporting, kinship promotion, the rationing of the products, assurance regarding safe supply, policy change, raising awareness, selling goods at a subsidized price have been noted as prevention strategies (6, 7).

Main Findings of the Study
The first episode happened in 1998 where a flood acted as a precipitating event. During this event rice, wheat, sugar, salt, onion, pulse, potatoes, and spices were brought, and assurance of adequate stocks was disseminated (8). The second episode happened in 2007 where curfew due to student riot acted as a precipitating event and necessary goods were brought (9). The third episode happened in 2019 where the export ban of the onion of a neighboring country acted as a precipitating event (10). The fourth episode was precipitated by the COVID-19 pandemic (11–29). The fifth episode was precipitated by the lack of the onion of India (30, 31). Media reports frequently mentioned prevention strategies, expert opinion, supply chain status, rationing, and Government action (Table 1). The reported goods are necessary for daily living, for example, medications and safety products (Table 1). Several controlling measures were practiced in Bangladesh during the episodes and the government used initiatives. The episodes describing the characteristics of PB fit with the existing concept of panic buying in regards to precipitating events, responsible factors, goods, and measures. Although the episodes covered two different times (COVID-19 and others) the characteristics are similar.

The study revealed primitive characteristics of panic buying episodes, where it starts with adverse stimuli, has an extra buying of necessary goods, resulting in disruption of supply chains supporting the existing causative model of PB proposed by Arafat et al. (1). The practiced prevention strategies have also been supported by previous recommendations (31). Other studies also reported on items sought panic buying which are usually daily necessities (4, 32). The media reports have positive reporting characteristics, as revealed by recent studies (6).
**TABLE 1** | Detail contents of reports (n = 24).

| Date of publication | News outlet | Main theme | Responsible factors of PB | Circulation | Goods | Events | Prevention strategy | Precipitating event |
|---------------------|-------------|------------|---------------------------|-------------|-------|--------|---------------------|---------------------|
| Sep 11 1998         | ReliefWeb   | It reported a PB event and prevention activity | Rumor of flood | International | Rice, wheat, sugar, salt, onion, pulse, potatoes, spices | Increase demand and price, people buying extra amount | Assurance of stocks | Flood |
| Aug 22 2007         | The Guardian | It mentioned PB in response to the curfew | Curfew due to student riot | International | Onion | | | Curfew |
| Nov 22 2019         | Global Voices | The report discussed the PB episode and government's action to prevent it | India banned the export of onions | International | | | | Export ban |
| Mar 9 2020          | The Independent | It described an episode of PB | Detection of the first COVID-19 case | Local | Masks, sanitizers | Increase demand and price, stock out | | COVID-19 |
| Mar 9 2020          | The Daily Observer | Discussed an panic buying episode | Detection of COVID-19 in Bangladesh | Local | Masks, toilet paper, hand sanitizer | Increase demand and price | | COVID-19 |
| Mar 10 2020         | The Daily Star | It describes the effect of PB on industry buying increasing the price of Yarn | COVID-19 pandemic | Local | Yarn | Increase demand and price, stock out | | COVID-19 |
| Mar 11 2020         | Arab News   | It reported the PB event and prevention activity | Uncertainty due to COVID-19 pandemic | International | Masks, sanitizers | Increase demand, stock out | Rationing | COVID-19 |
| Mar 17 2020         | Newage      | It reported the PB event and prevention activity | COVID-19 pandemic | Local | Rice, rice, flour, lentil, pulse, oil, salt, sugar, hand-wash, sanitizers | Increase demand, increased price, people buying extra amount | Assurance of stocks from the Government | COVID-19 |
| Mar 18 2020         | The Business Standard | The report discussed the Government's initiatives to stop PB | COVID-19 pandemic | Local | Rice, lentil, sugar, milk powder | Increase demand, increased price, people buying extra amount | Raising awareness, selling goods in lower price by the Govt., formulation of monitoring, punishment to maleficient sellers, dissemination of stock status to the general people | COVID-19 |
| Mar 18 2020         | The Business Standard | It reported the PB event and prevention activity | First death due to COVID-19 | Local | Soybean oil, chicken, fish, milk powder, rice | Increase demand, increased price, people buying extra amount | Raising awareness, formulation of special team to monitor, punishment to maleficient sellers, dissemination of stock status to the general people | COVID-19 |

(Continued)
TABLE 1 | Continued

| Date of publication | News outlet | Main theme | Responsible factors of PB | Circulation | Goods | Events | Prevention strategy | Precipitating event |
|---------------------|-------------|------------|--------------------------|-------------|-------|--------|---------------------|---------------------|
| Mar 19 2020         | Financial Express | The report discussed the PB episode and government’s action to prevent it | COVID-19 pandemic | Local | Rice, pulses, flour, potato, beef, egg, spices, onion, garlic, ginger, biscuits, baby diaper, toilet paper and mosquito coils | Increase demand, increased price, people buying extra amount | Raising awareness, selling goods in lower price by the Govt., formulation of monitoring team, punishment to maleficent sellers, dissemination of stock status to the general people | COVID-19 |
| Mar 19 2020         | BDNews24.com | The report discussed the PB episode and government’s action to prevent the PB | COVID-19 pandemic | Local | Rice, lentil | Increase demand, stock out | Raising awareness, dissemination of stock status to the general people | COVID-19 |
| Mar 20 2020         | Newage | It reported a PB event and the Government’s action to control | First death due to COVID-19 | Local | Rice, onion, garlic, lentil, potato, masks, hand sanitizers, hand rubs, soaps, hygiene products, noodles, oil, sugar, salt | Increase demand, increased price, people buying extra amount | Formulation of monitoring team, punishment to maleficent sellers, assurance of stocks | COVID-19 |
| Mar 20 2020         | The Finance Today | It describes the increased orders in ecommerce business | anticipation of an impending lockdown due to COVID-19 | Local | rice, lentil, sugar, hand sanitizers | Increase demand | | COVID-19 |
| Mar 20 2020         | JagoneWS | It discussed an panic buying episode | COVID-19 pandemic | Local | Onion, ginger, garlic, potato | | | COVID-19 |
| Mar 21 2020         | UNB NEWS | It described an episode of PB | COVID-19 lockdown | Local | Onion, garlic, rice, potato, egg, soybean oil, lentil | Increase demand, increased price, people buying extra amount | Mentioned the Government’s action to control it | COVID-19 |
| Mar 21 2020         | Somoy News | The report discussed the prevention steps of the Government for PB | COVID-19 pandemic | Local | Rice, pulse, egg and onion | | Raising awareness, assurance about the stock | COVID-19 |
| Mar 21 2020         | Daily Industry | The report discussed the effects of PB on online markets | COVID-19 pandemic | Local | rice, lentil, sugar | Increase demand | | COVID-19 |
| Date of publication | News outlet          | Main theme                                                                 | Responsible factors of PB                                           | Circulation | Goods                                                   | Events                                                                 | Prevention strategy                                                                 | Precipitating event |
|---------------------|----------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------|-------------|---------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------|
| Mar 23 2020         | ProthomAlo            | It reported the PB event of rice and recommended Governmental action to control | anticipation of an impending lockdown due to COVID-19                | Local       | Rice, Onion, garlic, potato, Soybean, lentil, eggs     | Increase demand, increased price, people buying extra amount             | COVID-19                                                             |                     |
| Mar 25 2020         | Bangladesh Post       | It reported the PB event of medications and expert opinion                 | COVID-19 pandemic                                                   | Local       | Antibiotics, cough syrup and anti-cold pills, fever medicine, Alatro, Histasin, Paracetamol and C vitamins | Increase demand                                                        | Raising awareness                                                      | COVID-19                                                             |
| Jun 16 2020         | DhakaTribune          | It described a PB episode                                                  | COVID-19 pandemic                                                   | Local       | Pulse oximeter                                         | Increase demand, increased price                                        | COVID-19                                                             |                     |
| Jun 21 2020         | DhakaTribune          | It described a PB episode                                                  | COVID-19 pandemic                                                   | Local       | Hydroxychloroquine tablets, dexamethasone, azithromycin, ivermectin, paracetamol, montelukast, doxofylline, salbutamol, fexofenadine, and some vitamin tablets | Increase demand, The Government published circulars in newspapers to raise awareness | COVID-19                                                             |                     |
| Sep 17 2020         | NewsToday             | The report discussed the prevention steps of the Government of a PB episode | export ban of Onion of India                                         | Local       | Onion                                                   | Import from alternative sources, reduced use of onion                    | Export ban                                                           |                     |
| September 17 2020   | Business outlook      | It discussed the prevention steps of the Government of a PB episode of onion | export ban of Onion of India                                         | Local       | Onion                                                   | Increase demand, increased price                                        | Raising awareness, selling goods in lower price by the Government, dissemination of stock, supply and price situation to the general people, reduction of import duty | Export ban               |                     |
Strengths of the Study
This is the first systematic assessment of panic buying in Bangladesh and reveals preliminary explorative findings that could help to formulate prevention strategies in future.

Limitations
Data were extracted from media reports which are not of scientific quality. The sample size was small. Data extraction and the search were done by a single person (first author). No structured instrument was used to extract the data. Only English language reports were studied.

CONCLUSION
The study revealed preliminary findings of panic buying in Bangladesh. However, they are aligned with the current concept of panic buying. Further empirical studies are warranted to explore geographical variation, demographics (e.g., education, income), consumption behavior, precise factors, and to test culturally appropriate control measures.

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DATA AVAILABILITY STATEMENT
The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

ETHICS STATEMENT
The study was conducted complying with the declaration of Helsinki (1964). As we analyzed the publicly available media reports, no formal ethical approval was obtained.

AUTHOR CONTRIBUTIONS
SA contributed to the concept, design, data analysis, and writing. All authors contributed to manuscript writing, revision, read, and approved the submitted version.

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Conflict of Interest: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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