

# Study On The Mechanism Of Panic Buying Under Omicron Virus Impact

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## Abstract

China has shown strong social cohesion and epidemic prevention and control actions in the face of the sudden new crown epidemic. This study uses questionnaire survey (N=208) data to investigate the important role of group factors and individual anxiety as mediating variables in the panic buying of the new crown epidemic through an empirical study. It was found that group factors significantly and positively influenced panic buying and individual anxiety significantly and positively influenced panic buying; government control significantly influenced panic buying through the mediating effect of group factors and individual anxiety. By exploring the mechanism of government control on panic buying and the role of group factors and individual anxiety as mediating variables, the study proposes thoughts on the way government control is guided in public crisis events. Government control is a policy risk, which affects individual anxiety through group factors and thus panic buying, and panic buying can lead to scarcity of goods and thus market risk.

**[Keywords]** Omicron virus, government control, mediating effect

## 1. Introduction

On 30 January 2020, the World Health Organization(WHO)declared Coronavirus Disease 2019 (COVID-19), caused by Severe Acute Respiratory Syndrome coronavirus2 , a public health emergency of international concern. on 11 March 2020, COVID-19 was identified as a global pandemic, the most serious epidemic facing humanity in the era of globalization. According to the article Long-term cardiovascular effects of new coronavirus infections in the journal Nature Medicine in 2022, by comparing a population of 150,000 people with new coronaviruses (85.6% in the no-admission group, 10.9% in the hospitalisation group of 16,800

people and 3.5% in the ICU group of 5,388 people) and 5.6 million controls, a comparative outcome map of 20 total cardiovascular diseases in 6 major categories was derived, with infection The risk of major cardiovascular disease was more than 1.5 times greater with coronavirus infection and about 1.7 times greater with any cardiovascular disease. The risk of cardiovascular disease increases after one year, whether it is a mild disease that does not require hospital admission, a moderate to severe disease that is treated in hospital, or a critical disease that has walked around the ICU (Xie Y & Xu E & Bowe B et.al, 2022). According to the article Risk of psychiatric disorders in people with neocoronavirus infection: a cohort study, also in a large sample of US veterans' offices, a 1.46-fold increase in the risk of arbitrary psychiatric disorders and a 1.86-fold increase in the risk of needing an arbitrary prescription was derived. Also controlling for the influenza and any-cause hospitalisation groups, the results were 1.43 times more new coronas diagnosed with any psychosis than the influenza group and 1.62 times more new coronas than the any-cause hospitalisation group. It has been confirmed that after NIC is more likely to be followed by anxiety disorders, depression and PTSD (Xie Y & Xu E & Al-Aly Z, 2022), and according to an article in the Journal of Clinical Epidemiology on the renal effects of NIC virus, a study of 90,000 confirmed cases of NIC with 1.7 million negative controls, all from US veterans' offices, did find a decrease in renal function, as evidenced by reduced glomerular filtration. Notably the neo-crown group also had a 35% increased risk of developing chronic kidney injury and even a 30% decrease in kidney function in 5% of neo-crown cases (Benjamin Bowe et.al, 2021). According to the article Acute sequelae of neocon breakthrough infection, 16,000 cases in the breakthrough group versus more than 3.5 million in the negative group, it is clear that vaccination is effective in reducing the risk of disease, but the risk of death is still elevated and there is a risk of various sequelae. Even after vaccination, the risk of all-cause mortality and risk of sequelae after infection with the new coronavirus still outweighs that of influenza (Al-Aly Z, Bowe B, Xie Y, 2021). The fact that the epidemic is now under significant control in China, thanks to the concerted efforts of the whole society, demonstrates not only the effective preventive and control actions of China after the outbreak of the new coronavirus, but also the rapid and timely official response of the people. It also demonstrates the social cohesion of the people in the face of a major public health crisis. Previous experience in infectious disease prevention and control has shown that panic buying is an important influencing factor in outbreak prevention and control, and that the public's accurate perception of personal and social risk factors is, to some extent, what determines the success of measures to slow the rapid spread of infectious diseases. The risks perceived by the public through personal or social experience are part of the panic buying process for outbreaks of infectious diseases, but more importantly stem from group factors. The group factor mediates the relationship between government control and panic buying, and therefore the group factor influences panic buying to a large extent. Therefore this study, based on the transmission process of the Omicron New Crown epidemic and from the perspective of panic buying, attempts to investigate the important role of group factors and individual anxiety in the mediating effect of panic buying by means of an empirical study, and uses this as a mediating variable to construct a multivariate mediation model to explore the pathway by which individual anxiety affects the

mediating effect of group factors. Therefore, this study can provide a reference for the path of panic buying in sudden public crises, and it also hopes to provide some reference and reference significance for the construction of panic buying models for new crown issues.

## 2. Literature Review and Research Hypothesis

### 2.1 Government control and group factors

Government control affects the group factor. With the rapid spread of the Internet, its influence on China's political, economic and social life is becoming more and more obvious; the local image presented by online communication is increasingly becoming an important channel for people to understand local governments. Internet communication and local government social control have undergone profound changes, reflected in the open virtual network and the local government's accurate grasp of information; the disorderly impulse of the Internet and the local government's need to reduce pressure on the population; the alienation of the Internet and the institutional construction co-financed by the local government. Therefore, local governments should pay special attention to the effectiveness and normality of social control. At the moment, the value of "putting people first" is only reflected in the act of social control. The construction of the image of the local government has been completed. (Zheng Yannan, 2009) Online political communication is a new form of political communication. It has emerged with the development of the Internet and has had a profound impact on the political process in contemporary China. By influencing the relationship between the government and the people and changing the mode of operation of government power, online political communication has played an active role in expanding the democratic rights of the people, improving government efficiency, shaping modern political culture, and promoting democratic and rule-of-law political reform, and has strongly promoted the political development of contemporary China. (Liu Yuanliang, 2013)

The grassroots government absorbs workers, peasants and property owners in the micro-process of struggle. In their daily work of maintaining stability, grassroots governments develop three strategies to reach agreements: normalising and routinising bargaining in struggle (material concessions); designing and implementing bureaucratic games (project approval); and building an information and service-oriented government under the slogan of stability and peace (moral leadership). Through an in-depth analysis of the rich and vivid experiences of government and people in this process, the author finds that maintaining stability is achieved through an unstable balance between consent and coercion, i.e. a compromise between government authority and civil rights. (Yonghong Zhang, Jingjun Li, 2012)

The influence of public policy target groups on the effective implementation of public policy reflects the contradictory and conflicting interests between public policy target groups and public policy makers and implementers. From the perspective of public policy, the self-interest tendency of public policy target groups has a double influence on the effective implementation of public policy public policy target groups, to ensure the effective implementation of public policy, reasonable measures and methods must be taken in the regulation of interests, political participation and behavioural control of public policy target groups. (Gao,

2007)

Therefore, based on the above arguments, we can put forward the following hypothesis:

H1: Government control has a significant positive effect on group factors.

## 2.2 Group factors and individual anxiety

Over the past two decades, researchers have documented different psychological reactions of people during infectious disease outbreaks, such as fear, anxiety, depression, loss, guilt, irritability, feelings of isolation and stigma (Leung et.al, 2004; Maunder et.al, 2003; Sim et.al, 2020). Researchers can now observe the psychological reactions associated with panic buying that occurred in several countries during the COVID-19 epidemic (Sim et.al, 2020). Panic is a subjective, emotional state in humans that significantly affects their behaviour (Ngunjiri, 2020). Panic buying is a socially undesirable behaviour (Steven et.al, 2014), irrational behaviour (duyong, 2006), and an unconscious behaviour (Honggang, 2011) that occurs during periods of uncertainty and panic when large numbers of customers stock up on necessities in order to avoid anticipated future threats (Liren et.al, 2012; Yuen et.al, 2020).

The research model is based on three psychological theories; behavioural inhibition system theory (Gray, 1975), resistance theory (Brehm and Brehm, 1981), and expectancy theory (Reiss and McNally, 1985). The behavioural inhibition system (BIS) theory suggests that the human brain has three distinct and interrelated emotional systems that elicit and control emotional behaviour through primary reinforcement and stimulation (secondary reinforcement) (Gray, 1975). The theory suggests that an individual's anxiety is the result of natural ways (Hagopian and Ollendick, 1994). It is further argued that when BIS emotions are met with negative stimuli, it induces anxiety and directs people to organise their lives in a certain way so as to avoid anxiety (MacAndrew and Steele, 1991).

Anticipation theory states that individuals' anticipation of danger and sensitivity to dangerous objects motivate them to take the necessary actions to avoid the fearful stimulus. The theory even suggests that individuals' fears may vary according to their anticipation of negative outcomes and sensitivity to aversive outcomes associated with anxiety or panic (Reiss, 1991). It is therefore important to consider the role of response expectations in the prevention of anxiety disorders in individuals (Kirsch, 1997). Resistance theory is another psychological theory that aims to explain how individuals react after experiencing a threat of freedom (Brehm and Brehm, 1981). According to this theory, "a perceived threat to an individual's freedom produces a motivational state aimed at regaining the affected freedom and preventing the loss of others" (Gogarty, 1997).

Therefore, based on the above arguments, we propose the following hypothesis:

H2: There is a significant positive effect of group factors on individual anxiety.

## 2.3 Group factors and panic buying

The underlying assumption behind panic buying is that the public behaves irrationally, uncoordinated and uncooperative in emergency situations, which leads them to panic (Glass and Schoch-Spana, 2002). Uncertainty, panic, unusual purchases and a high degree of concentration on the place of purchase are some

of the distinguishing features of panic buying (Liren et.al, 2012). Indeed, one needs to determine whether purchases are motivated by panic or by preparing for disaster during a pandemic based on the plausibility of hoarding behaviour (Glass and Schoch-Spana, 2002). During the New Coronavirus pandemic, consumers were found to buy certain products in bulk, such as toilet paper, hand sanitizer, thermometers and face masks. As a result, these essential products were swept off shop shelves in many countries (Ngunjiri, 2020). In light of this, some researchers have highlighted the need to understand the key factors that influence consumer panic buying during an epidemic.

Based on the existing literature on inventory and hoarding, researchers have identified threat perception, scarcity perception, fear of the unknown or uncertainty, coping behaviour, social influence and social trust as the most important antecedents of panic buying (Yuen et.al, 2020).Ngunjiri (2020) argues that anxiety, fear and perceived scarcity are some of the most important prerequisites. However, all these studies have shown that further empirical research is necessary to understand the interrelationships between the antecedents of panic buying and the different factors that mediate or moderate the relationships between predictor variables and behaviours of consumer panic buying (Liren et.al, 2012; Wijaya, 2020; Yuen et.al, 2020). From an objective perspective, there are differences between these three psychological theories. For example, expectancy theory suggests that the sensitivity of the expected object of fear influences individuals' anxiety, whereas resistance theory explains how individuals' perceived threats to freedom affect their motivation to regain freedom. In addition, behavioural inhibition systems theory explains why people react differently in particular situations. Although all these psychological theories are commonly applied to health settings, we used them to explain consumer panic buying behaviour as psychological factors are believed to play a crucial role to influence consumer anxiety and panic buying behaviour after COVID-19 prevalence (Sim et.al, 2020; Yuen et.al, 2020).

Therefore, based on the above arguments, we propose the following hypothesis :

H3: There is a significant positive effect of group factors on panic buying.

#### 2.4 Personal anxiety and panic buying

Uncertainty is one of the most important features behind panic buying (Liren et.al, 2012). Such purchases occur when there is doubt about future predictions (Taylor, 1974) (Anderson, Carleton, Diefenbach and Han, 2019) defining uncertainty as a state of mind that arises from an individual's conscious ignorance of something. Awareness of ignorance affects people's thoughts, feelings and actions (Anderson et.al, 2019). Some researchers argue that uncertainty affects people's expectations of the various dire consequences that make them anxious when they exacerbate perceived threats (Dugas et.al, 2005) (Kemp et.al, 2014). Inhibited uncertainty and doubt can increase social anxiety, panic, agoraphobia and depression (Carleton, 2012). Furthermore, with too little knowledge of the event, its duration, any possible solutions and how it will end, unexpected situations such as disasters or pandemics can create uncertainty, which in turn can influence people to perceive their level of fear and make panic purchases (Liren et.al, 2012). As people do not like uncertainty (Carleton, 2016), they tend to avoid it at all costs (Anderson et.al, 2019; Lovallo and Kahneman, 2000).

During the COVID-19 pandemic, the auto-regulation of achieving chaos and lockdown in some countries in Asia, Europe and North America created great levels of uncertainty, which adversely affected anxiety and stress levels in people who were unable to go outdoors or meet friends (Arumugam, 2020). History has shown that extreme measures such as isolation can make people feel more vulnerable than the illness itself (Glass and Schoch-Spana, 2002). According to the behavioural inhibition system theory (Gray, 1977), unexpected events affect behavioural inhibition and the nervous system, which are closely linked to anxiety and change, which affect the individual's subsequent behaviour in unexpected situations. There is no doubt that the sudden outbreak of the Omicron Neocon pandemic, and the decision of many countries to blockade adversely affected the mental state of people and created some confusion and uncertainty, which also led to panic buying in the consumer market (Yuen et.al, 2020).

The relationship between personal anxiety and panic behaviour has been documented in the context of health (Carleton et al., 2014; Talkovsky and Norton, 2016). A recent study also found empirical evidence that greater uncertainty would lead to more people panicking during the COVID-19 pandemic crisis (Xu and Sattar, 2020). In addition, some researchers have hypothesized a direct positive relationship between uncertainty and individual panic buying behaviour (Arafat et.al, 2020; Dickins and Schalz, 2020), and that individuals' perceived inability to tolerate uncertainty and distress may influence behaviours such as hoarding, stockpiling or panic buying during a pandemic (Ketchell, 2020). Furthermore, existing research suggests that uncertainty triggers anxiety during a pandemic or disaster (Arumugam, 2020; Bakioğlu et.al, 2020; Kouchaki and Desai, 2015).

Therefore, based on the above arguments, we propose the following hypothesis :

H4: There is a significant positive effect of personal anxiety on panic buying.

#### 2.5 The relationship between group factors on government control and panic buying

In one of the hypotheses of the panic buying study, government purchases would indirectly influence panic buying. Government purchases have a significant effect on group factors, which in turn play an important role in panic buying, so that group factors can contribute to panic buying behaviour, and government control behaviour is important to group factors. Combined with the previous hypotheses H1 and H3, this study suggests that the group factor can also play a significant mediating effect between the two, and based on this, this study hypothesizes that there is a significant mediating effect of the group factor in the relationship between government control and panic buying.

H5: The group factor mediates the relationship between government control and panic buying.

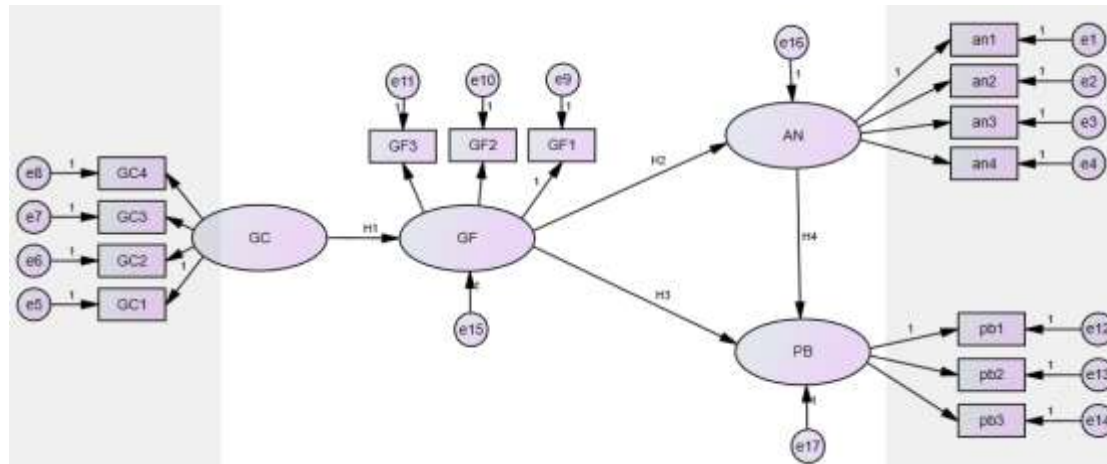
#### 2.6 The relationship between anxiety on group factors and panic buying

In one of the hypotheses of the panic buying study, group factors not only affect panic buying directly, but also indirectly. Group factors have a significant effect on individual anxiety, which in turn plays an important role in panic buying, so that anxiety can contribute to panic buying behaviour, and group factors can in turn influence individual anxiety. Combined with the previous hypotheses H2 and H4, this study suggests that personal anxiety can also play a significant mediating effect between the two, and therefore this study

hypotheses that personal anxiety has a significant mediating effect in the relationship between group factors and panic buying.

H6: Personal anxiety mediates the relationship between group factors and panic buying.

Figure 1 Diagram of the structure of this study



### 3. Study design

#### 3.1 Data collection

The data collection for this study was conducted through an online questionnaire, which started on April 1, 2022 and ended on April 15, 2022, with 208 questionnaires obtained. Among them, 135 (64.9%) were female and 73 (35.1%) were male; 80 (38.50%) were under 24 years old, 68 (32.7%) were 25-34 years old, 42 (20.29%) were 35-44 years old, 27 (14.81%) were 36-40 years old, 15 (8.18%) were 41-45 years old, 11 (6.01%) were 50 years old and above, and only 6.01%; 93 unmarried, accounting for 51.11%, 89 married, accounting for 48.89%; education level, 23 people (12.61%) were in high school or below, 20 people (10.09%) were in college, 65 people (35.72%) were in bachelor's degree, and 38 people (18.3%) were in graduate school or above; monthly income, 85 people (40.9%) were below RMB 3,000, 3,001 to The highest number of unmarried people was 102, accounting for 49%, followed by 97 married people with children, accounting for 46.6%, 5 others, accounting for 2.4%, and 4 married people without children, accounting for 1.9%.

		Frequency	Percentage	Cumulative percentage
gender	Male	73	35.1	35.1
	Female	135	64.9	100
age	24 years old and below	80	38.5	38.5
	25~34 years old	68	32.7	71.2

		Frequency	Percentage	Cumulative percentage
	35~44 years old	42	20.2	91.3
	45~55 years old	12	5.8	97.1
	56 years old and above	6	2.9	100
	Total	208	100	
edu	High School / Secondary School and below	16	7.7	81.7
	University College	21	10.1	74
	Undergraduate	133	63.9	63.9
	Master's degree and above	38	18.3	100
income	Under RMB3,000	85	40.9	40.9
	3001-5000RMB	35	16.8	57.7
	5001-7000RMB	37	17.8	75.5
	Above RMB7000	51	24.5	100
married	Other	5	2.4	2.4
	Unmarried	102	49	51.4
	Married, no children	4	1.9	53.4
	Married, with children	97	46.6	100
	Total	208	100	

Table 1 Frequency table

### 3.2 Variable measurement

There are four variables in this study: government control GC, group factor GF, individual anxiety AN and panic buying PB, all using well-established scales from leading national and international journal literature. The government control GC is the independent variable, the group factor GF and individual anxiety AN are the mediating variables, and the panic buying PB is the dependent variable. All questions, except for the demographic structure, were measured on a seven-point Likert scale, ranging from 1 to 7 for "strongly disagree" to "strongly agree".

For the government control GC, the scale developed by Qingwen, Wang Yibao and Jia Xiaojie (2021) was used in the Chinese context and consisted of four questions. The group factor GF was measured using the scale developed by Qingwen, Wang Yibao and Jia Xiaojie (2021) according to the Chinese context, with three questions, and the personal anxiety AN scale, developed by Chlan et.al (2003), Marteau and Bekker (1992), and Zsido et.al (2020), with four questions, was used in this study. The panic buying PB scale, using the scale developed by Frost et.al (2004) and Van et.al (2010), has 3 questions.

### 3.3 Research Methodology

The study first used spss26.0 for descriptive statistics and factor and correlation analyses; then AMOS24.0 for convergent validity, discriminant validity and model fit tests; AMOS24.0's bootstrap method was used to test for mediating effects of group factors; and finally AMOS24.0 was used to find the relevant outgoing path coefficients and significance.

## 4. Research results

### 4.1 Exploratory factor analysis

The quality of the 208 sample data was checked for suitability for exploratory factor analysis with the help of SPSS26.0 software according to Harman's suggested method. The correlation results showed that the samples had a KMO value of 0.890 and the Bartlett's spherical test reached a significant level of  $p < 0.001$ , making them suitable for factor analysis. Exploratory factor analysis was then conducted based on the principal component analysis method and the maximum variance rotation method, following the factor extraction principle of the number of factors to be extracted<sup>4</sup>. Those items with their own factor loadings less than 0.5 or cross-factor loadings greater than 0.4 and a difference less than 0.2 were eliminated one by one, resulting in 4 factors and 14 items (see Table 1 for details). These 14 question items all had factor loadings above 0.6, with a cumulative variance explained of 86.30%, and the factor aggregation structure was consistent with the expected judgement of text coding.

Ingredients	1	2	3	4
an2	0.912			
an3	0.911			
an4	0.902			
an1	0.89			
GC3		0.934		
GC2		0.897		
GC1		0.895		
GC4		0.889		
GF2			0.887	
GF1			0.879	
GF3			0.749	
pb2				0.862
pb1				0.686
pb3				0.652

Table 2 Rotated component matrix

#### 4.2 Descriptive statistics with convergent and differential validity tests

The study found that the mean of individual anxiety was 4.043, panic buying 4.686, government control 5.998, and group factor 4.795. correlation analysis and effect size measures between the variables showed that there was a significant correlation between individual anxiety, group factor, and panic buying two by two. Government control was positively correlated with group factor ( $r=0.177$ ,  $p<0.05$ ); individual anxiety was positively correlated with group factor ( $r=0.621$ ,  $p<0.01$ ) and group factor was positively correlated with panic buying ( $r=0.635$ ,  $p<0.01$ ). Individual anxiety was positively associated with panic buying ( $r=0.702$ ,  $p<0.01$ ). Government control was only positively and significantly associated with the group factor ( $r=0.177$ ).

The reliability and convergent validity of the model are shown in Table 3. The combined reliability values for all three factors were greater than 0.7. The test results indicated that the model had a high level of reliability and the mean extracted variance was also above the threshold value of 0.7, indicating that the model had relatively good convergent validity.

In the discriminant validity analysis, Fornell and Larcker suggested that the convergent validity should be greater than the square of the correlation between the facets. When the four extracted factors were tested for discriminant validity, the AVE was greater than the maximum value of the squared correlation between the constructs, and the model could be considered to have good discriminant validity (see Table 3).

Dimensio nality	Convergent validity		Descriptive statistics		Differential validity			
	Cronbach's $\alpha$	AVE	MEAN	Std.	GC	GF	AN	PB
GC	.925	.817	5.998	1.207	.904			
GF	.920	.728	4.795	1.803	.177*	.853		
AN	.980	.817	4.043	2.108	.065	.621**	.904	
PB	.851	.607	4.686	1.726	.065	.635**	.702**	.779

Note: The diagonal bold text is the AVE open root value, the lower triangle is the Pearson correlation of the dimension

Table 3 Convergent and discriminant validity

#### 4.3 Model fit

There is no absolute evaluation criterion for the fit of structural equation models, which are generally assessed by looking at a combination of indicators (see Table 4). The structural equation model is assumed to fit the actual data perfectly with a chi-squared value of 145.257 and a significant p-value. However, this indicator is susceptible to large sample sizes and the chi-squared degrees of freedom ratio (CMIN/DF) of the model is within a reasonable range, so the model setting can be considered good. Also, the overall model fit for each of the assessed indicators lies within a reasonable range and the MSEA is also less than the recommended value, indicating a good model fit.

Fit Indices	Criteria	Model fit research model
$\chi^2$	The smaller the better	145.257
df	The bigger the better	73.00
$\chi^2 / df$	2~5	2.02
NFI	>0.9	0.955
CFI	>0.9	0.977
RFI	>0.9	0.944
TLI	>0.8	0.971
RMSEA	<0.08	0.069
GFI	>0.9	0.911
AGFI	>0.8	0.871

Table 4 Goodness-of-fit indicators

#### 4.4 Multiple regression analysis of panic buying

The results of the model parameter estimates are presented in Table 5. Government control has a positive effect on group factors, with an unstandardised estimate of 0.308,  $p < 0.01$ . This shows that government control has a significant positive effect on group factors, and the hypothesis H1 holds. The hypotheses H2 and H3 are valid. The effects of group factors on individual anxiety and panic buying are both positive and significant. Regarding the relationship between personal anxiety and panic buying, the correlation estimate is 0.528, personal anxiety also has a strong influence on panic buying to some extent, hypothesis H4 holds.

DV	IV	unstad.	S.E.	Z	P	hypothesis	Std.
GF	GC	0.308	0.119	2.592	0.01	H1	0.188
AN	GF	0.666	0.069	9.677	***	H2	0.593
PB	GF	0.294	0.062	4.704	***	H3	0.299
PB	AN	0.528	0.057	9.209	***	H4	0.603

Table 5 Summary of results for confirmation of research hypotheses

#### 4.5 Analysis of the mediating effects of group factors and individual anxiety

Traditional tests for mediating effects can only obtain "partially mediated" or "fully mediated" results, but this study used Bootstarp's self-sampling method with 5000 repetitions to test for mediating effects. This method addresses the limitations of the Sobel mediation test and allows the analysis to accurately calculate the proportion of mediation effects. In addition, it is possible to present the relationship between the effect of the independent variable on the mediating variable, the dependent variable and the mediating variable on the

dependent variable.

The mediating effects of group factors on government control and panic buying do not contain zero at the upper and lower bound of the Bootstrap 95% confidence interval (see Table 6), indicating that government control can influence panic buying through group factors. In summary, the 5th hypothesis (H5) of this study was tested.

The mediating effect of individual anxiety on group factors and panic buying did not contain 0 at the upper and lower limits of the Bootstrap 95% confidence interval (see Table 6), and group factors could not only directly influence panic buying, but also indirectly through individual anxiety. This direct effect (0.09) and mediating effect (0.108) accounted for 45.22% and 54.78% of the total effect (0.199) respectively. In summary, the sixth hypothesis (H6) of this study was also tested.

Effect	Estimate	SE	Z.	Bias-corrected percentile			
				Lower	Upper	Lower	Upper
GC->GF->AN->PB	0.108	0.057	1.895	0.020	0.245	0.019	0.242
GC->GF->PB	0.090	0.051	1.765	0.018	0.223	0.012	0.209
total effect	0.199	0.094	2.117	0.035	0.409	0.037	0.410
GF->AN->PB	0.352	0.071	4.958	0.228	0.510	0.223	0.503

Table 6 Mediating and total effects

## 5. Conclusion

### 5.1 Conclusion of the study

This study aimed to explore how government control influences panic buying through mediation, and the findings validated the mediating effect of group factors and individual anxiety, as well as further empirical research on the mediating role of group factors in public health emergencies situations. The data collection period for this study was from early to mid-April 2022, unlike the early part of the epidemic when the nation was united in fighting the epidemic at home and the mid-epidemic when the entire population returned to work production and school, this period coincided with the Omicron virus backlash. Therefore, the study found that the overall public panic buying water mean was higher during this period ( $M=4.686$ ,  $SD=1.726$ ); secondly, group factors significantly influenced panic buying, the higher the influence of group factors, the higher the level of panic buying; group factors and individual anxiety significantly influenced panic buying in the new crown epidemic, the lower the individual anxiety, the lower the panic buying, the higher the group factors, the The lower the individual anxiety, the lower the panic buying, and the higher the group factor, the higher the level of panic buying. Finally, group factors play a significant mediating role between government control and panic buying. Individual anxiety mediates the relationship between group factors and panic buying. Government control is a policy risk, which affects individual anxiety through group factors and thus

affects panic buying, which leads to scarcity of goods and thus market risk.

## 5.2 Reflections and Discussion

In light of the above findings that government control affects panic buying directly or indirectly by influencing group factors, which is related to the risk specificity of the New Crown epidemic and the advantages of China's socialist system, this study develops further discussion.

The national context in China highlights the significant role of group factors in panic buying in the New Crown epidemic, finding that the lower the individual anxiety, the lower the panic buying, which may be due to the specificity of COVID-19, i.e. a long incubation period, high contagiousness and general susceptibility of all members of society compared to past experiences with infectious diseases. Previous studies of infectious diseases have only considered the important role of individual anxiety in panic buying, but the New Coronavirus epidemic is a global pandemic, and people everywhere are a 'community of fate' in the face of the epidemic. The public's perception of the group element of official state action is crucial. A relatively stable and balanced group factor can increase citizens' sense of belonging and trust in the country, which can have a positive effect on the control of the epidemic. This result demonstrates China's effective prevention and control capacity, as well as its timely and prompt official response to the new coronavirus disease outbreak, and the social and national cohesion of the Chinese people in the face of a major public health crisis. This further suggests that government control research must consider and focus on the specificity of different diseases and the socio-cultural contexts on which they depend. The relationship between group factors and panic buying differs from previous studies in the context of the particular contagiousness of the new crown and China's unique socialist institutional advantage, which highlights the important role of group factors in panic buying. The mediating role of group factors in the relationship between government control and panic buying is significant and forms a mediator, which is consistent with our speculation. In the public's psychological state of panic buying for the new crown epidemic, individual anxiety and the perception of group factors work together in the formation of the psychological state of risk perception, while the strength of the public's group factors is inevitably influenced by individual anxiety. The presence of the intermediary effect also suggests that attention is paid to the role of government control in the control and science of the new crown epidemic.

## 5.3 Research shortcomings and outlook

There are some shortcomings in this study: firstly, the sample representation is small and cross-sectional data from 1 April to 15 April 2022 is used. The development of the epidemic is a dynamic process and therefore the findings of this study are not applicable to every stage of epidemic development and the findings cannot be said to be generalisable. Secondly, whether the level of attention to information related to the new crown epidemic has an impact on risk perception can be further investigated. Although China is currently making gradual progress in controlling the neo-coronavirus epidemic, the spread of neo-coronavirus disease remains rapid globally, with significant levels in the northern and southern United States as well as in India and South Africa. The issue of neo-coronavirus has developed into a global social issue, and a large number of empirical

studies are needed to provide theoretical and data support for prevention, control and intervention efforts. Future research could conduct a more representative nationwide sample and further longitudinal studies in the context of the developing trends of the epidemic to better reflect the impact of government control on public risk perceptions. At the same time, the measurement methods used in this study need to be more scientifically rigorous, and these are areas where research on government control and new crown-related issues should be pursued.

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