

Protecting public's wellbeing against COVID-19 infodemic in China: The role of trust in information sources and rapid dissemination and transparency of information

Junxiu Wang (✉ wang_jx@cass.org.cn)

Inner Mongolia Normal University

Airong Zhang

CSIRO Health and Biosecurity

Yingnan Zhou

University of Chinese Academy of Social Sciences

Xiaoliu Liu

Chinese Academy of Social Sciences

Xuyun Tan

Chinese Academy of Social Sciences

Ruikai Miao

University of Chinese Academy of Social Sciences

Research Article

Keywords: psychological stress, media sources, information dissemination, perceived safety

Posted Date: December 9th, 2020

DOI: <https://doi.org/10.21203/rs.3.rs-114721/v1>

License:   This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

Abstract

Background

While the COVID-19 is rapidly spreading around the world, the information and misinformation about the novel virus has also flooded the social media globally. This led to the declaration by World Health Organisation that the world is not only fighting against epidemic but also fighting an infodemic. How media source and the dissemination of information about COVID-19 affect the public's wellbeing is, however, yet to be empirically examined. The present study aimed to empirically examine how trust in the information about COVID-19 from social media and official media and how the information was disseminated (i.e., rapidity and transparency) affect public's wellbeing (i.e., positive response and depressive response).

Methods

At the height of the COVID-19 outbreak in China between 24-Jan to 10-Feb 2020, an online survey of 22,718 participants ($M_{\text{age}} = 28.41$ years old, $SD = 9.90$; 47.9% being male) was conducted across China. Key measured variables are trust in official media and social media, dissemination and transparency of COVID-19 related information, perceived safety, and emotional response toward COVID-19. Data analysis includes descriptive statistical analysis, Pearson correlations, and structural equation modelling.

Results

The results that trust in the information about COVID-19 from social media was lower than from official media. Trust in these two media sources played different roles in affecting public's wellbeing. While trust in social media was predominantly associated with heightened depressive response toward COVID-19 pandemic, trust in official media was linked to reduced depressive response and increased positive response. Rapid dissemination and transparency of information was strongly associated with increased trust in official media as well as contributed to increased positive response and reduced depressive response directly and indirectly through perceived safety.

Conclusion

The findings highlight the important roles of fostering public trust in official media, rapid dissemination and transparency of information in mitigating the negative impact of COVID-19 infodemic on public's wellbeing.

1. Introduction

The COVID-19 outbreak started in Wuhan, China and rapidly spread across the country and beyond. China officially announced COVID-19 outbreak on January 20, 2020 after many rumours circulating in social media for over two weeks. On January 23, Chinese government deployed lockdown measures with the goal of containing the virus from further spreading. The whole country was halted suddenly, where residents across the country were requested to self-isolate and cancel gatherings; factories and public facilities were closed. Reports of many locals taking drastic measures such as digging up roads and blocked highway exits due to their fear of being infected constantly splashed over media outlets, so did sensational news pictures of medical staff and patients covered in full gears seemingly like a war zone. Daily reports of confirmed diagnoses and death constantly surged ahead, which instilled a strong sense of out-controlled crisis among the public.

While the drama caused by the COVID-19 outbreak rapidly played out across the country, the public were also grappled with a lack of information due to the unknown nature of the novel virus. Information regarding COVID-19 was constantly evolving from no evidence on transmission from person to person at the beginning, to wide community transmission, and to still with limited scientific understanding of the virus. All these were coupled with rampant misinformation and rumours spread across social media platforms including commercial news websites, Weibo (a microblogging website), and WeChat (a multi-purpose messaging and social media), which further fuelled fears and led to psychological distress among the public [1, 2, 3, 4, 5].

The frantic situation soon played out and caused psychological distress across the world [5, 6, 7, 8, 9, 10, 11, 12]. This situation highlights the remarkable characteristics of the concurrence of virology and virality of COVID-19, where fast virus spreading is coupled with rapidly spreading of information and misinformation [13]. On February 2, the World Health Organisation (WHO) termed the new coronavirus as “a massive ‘infodemic’—an overabundance of information—some accurate and some not—that makes it hard for people to find trustworthy sources and reliable guidance when they need it” [14]. Fears around COVID-19 have been especially amplified by social media [15, 16]. Precisely as WHO Director-General Dr. Tedros Adhanom Ghebreyesus pointed out, “We’re not just fighting an epidemic; we’re fighting an infodemic” [17]. To minimise public fear and confusion caused by social media, transparency and rapid dissemination of information by government agencies is regarded crucial [18, 19, 20].

How media sources and the dissemination of information about COVID-19 affect public’s wellbeing is, however, yet to be empirically examined. Emerging research provide support that media exposure was associated with anxiety, but with mixed effects depending on the contents of the media [21]. However, the effect of media sources was not investigated. Ren et al. [22] found that people who sought information from official media displayed lower levels of depression; and confusion caused by social media was linked to anxiety and depression. Therefore, an in-depth understanding of how these aspects interact and affect public’s wellbeing will help policy makers and health authorities develop targeted strategies to mitigate and minimise the negative impacts of COVID-19 on public mental health. The present study aimed to investigate how trust in the information about COVID-19 from official media and social media and how the information about COVID-19 was disseminated (i.e., rapidity and transparency) affect

perceived safety and emotional response (i.e., positive response and depressive response) at the height of COVID-19 outbreak in China.

2. Methods

2.1. Procedure and participants

The study was reviewed and approved by the Academic Committee of Institute of Sociology, Chinese Academy of Social Sciences. The study was conducted in compliance with the ethical standards specified in the Ethical Principles of Psychologists and Code of Conduct by the American Psychological Association [23] and in 1964 Helsinki declaration and its later amendments [24]. A national survey in China was conducted between 24-Jan to 10-Feb 2020 at the height of Coronavirus outbreak in China (see Fig. 1). A research survey company was engaged to recruit participants and conduct data collection across China. After presenting a brief description of the study, participants were informed that no personal identifiable information would be collected, that their survey results would remain confidential, and that their participation was voluntary, and they could withdraw from the survey at any time without penalty. Participants were asked to click 'I agree' button if they consent to participate the survey. Participants were paid a small fee for their time.

A total of 22,718 participants cross China completed the online survey. The mean age was 28.41 years ($SD = 9.90$, ranging from 18 to 70 years old), with 47.9% of the sample was male. The education levels were junior high school and below (Year 9 or below, 3.5%), senior high school (Year 12, 14.5%), college certificate (15.5%), bachelor's degree (48.3%), and postgraduate (18.3%).

2.2. Measures

Trust in official media was measured by asking participants to indicate how trustworthy the information on the Coronavirus outbreak from government agencies, central government owned media, and local government news media ($\alpha = 0.79$). *Trust in social media* was measured by asking participants to indicate how trustworthy the information on the Coronavirus outbreak from commercial news websites, Weibo influencers, and WeChat influencers ($\alpha = 0.82$). The measurement was on a 4-point scale (1 = not trustworthy at all, 4 = very trustworthy).

Rapid dissemination was measured with: "So far, do you think the dissemination of information about Coronavirus is rapid?" (1 = very delayed, 4 = very rapid). *Transparency* was measured with: "So far, how transparent do you think the information on the Coronavirus outbreak is?" (1 = very low, 4 = very high). *Perceived safety* was measured with: "Thinking about Coronavirus, how safe do you feel from being infected?" (1 = not safe at all, 5 = very safe).

The measurement of emotional response towards COVID-19 outbreak was adapted from the Florida Shock Anxiety Scale [25, 26]. Participants were asked to rate their feelings towards COVID-19 outbreak using a 5-point scale (1 = not at all, 5 = very much) on the adjectives describing *positive response*

(optimistic and calm; $\alpha = 0.74$) and *depressive response* (worried, helpless, scared, sad, angry, and panicked; $\alpha = 0.87$).

2.3. Data analysis

Descriptive statistical analysis of the measured variables and the correlations between and measured variables and demographic variables was conducted first. To investigate the interactive relationship between the measured independent variables in predicting emotional response, structural equation modelling was conducted [27]. The goodness of fit of the model was assessed using the comparative fit index (CFI), the Non-Normed Fit Index (NNFI), and root mean square error of approximation (RMSEA). A satisfactory fit is suggested by $CFI > 0.90$, $NNFI > 0.90$, and $Standardized\ RMSEA \leq 0.08$ [28].

3. Results

3.1. Demographics

The means and standard deviations of measured variables and their correlations with demographic variables are presented in Table 1. On average participants displayed sound trust in official media ($M = 3.18$, $SD = 0.60$), which is significantly higher than trust in social media ($M = 2.72$, $SD = 0.64$), $t(22717) = 110.17$, $p < .001$. Female participants trusted significantly less in both media. While age was not related to trust in official media, younger participants reported less trust in social media. Education was negatively related to trust in both media sources, such that the more educated the participants were, the less they trusted in the information from either official media or social media.

The dissemination of information about the Coronavirus was regarded on average less rapid ($M = 2.75$, $SD = 0.87$) and transparent ($M = 2.75$, $SD = 0.78$). Especially, older participants had more positive evaluation on rapid dissemination and transparency than younger participants; female participants displayed less positive view than male participants; and more educated participants reported less positive evaluation. Perceived safety from being infected with the Coronavirus was significantly associated with demographics. Female participants felt less safe than male participants; older participants felt safer than younger participants; and more educated participants perceived less safe.

Emotional response to COVID-19 was significantly related to demographics. Female participants displayed less positive response and more depressive response. Older participants showed more positive response and less depressive response. More educated participants displayed less positive response and more depressive response.

Table 1

Means and standard deviations (SD) of measured variables and correlations with demographic variables

	M (SD)	Gender	Age	Education
Trust in official media	3.18(0.60)	-0.06***	0.01	-0.19***
Trust in social media	2.72(0.64)	-0.04***	0.08***	-0.21***
Rapid dissemination	2.75(0.87)	-0.11***	0.11***	-0.26***
Transparency	2.75(0.78)	-0.12***	0.11***	-0.25***
Perceived safety	2.80(0.68)	-0.16***	0.08***	-0.17***
Positive response	2.92(1.11)	-0.15***	0.08***	-0.18***
Depressive response	3.07(0.99)	0.16***	-0.05***	0.08***

Note: *** $p < .001$. *Gender* (1 = male, 2 = female). *Trust in official media* and *trust in social media* were measured on a 4-point scale (1 = not trustworthy at all, 4 = very trustworthy). *Rapid dissemination* was measured on a 4-point scale (1 = very delayed, 4 = very rapid). *Transparency* was measured on a 4-point scale (1 = very low, 4 = very high). *Perceived safety* was measured on a 5-point scale (1 = not safe at all, 5 = very safe). *Positive response* and *depressive response* were measured on a 5-point scale (1 = not at all, 5 = very much).

3.2. Dynamic interactions between measured variables in predicting emotional response to COVID-19

Our hypothesized model specified trust in official media, trust in social media, rapid dissemination and transparency of information as exogenous predictors of perceived safety. Perceived safety, in turn, was identified as a predictor of positive response and depressive response. Moreover, trust in official media, trust in social media, rapid dissemination and transparency also served as exogenous predictors of positive response and depressive response. In this model, trust in official media, trust in social media, positive response and depressive response were latent variables presented using ellipses, while rapid dissemination, transparency, and perceived safety were observed variables presented using rectangles.

The model fit indices suggest that the model provided good fit for the data, with CFI = 0.94, NNFI = 0.92, and RMSEA = 0.07. An overall coefficient of determination (R^2) was calculated for each endogenous variable. For perceived safety, R^2 is 0.19, such that 19% of variation in perceived safety can be explained by trust in official media, trust in social media, rapid dissemination and transparency. For positive response and depressive response, R^2 is 0.29 and 0.17 respectively, such that 29% of variation in positive response and 17% of variations in depressive response can be explained by trust in official media, trust in social media, rapid dissemination, transparency, and perceived safety.

Figure 2 presents the standardised parameter estimates for the model. The model outlines the dynamic interactions between the measured variables in predicting emotional response towards COVID-19. First, trust in official media was strongly associated with rapid dissemination ($r = .59$, $p < .001$) and

transparency ($r = .62, p < .001$). Trust in social media was moderately related to rapid dissemination ($r = .35, p < .001$) and transparency ($r = .37, p < .001$). Transparency and rapid dissemination were strongly correlated ($r = .69, p < .001$).

Second, trust in official media ($\beta = .19, p < .001$), trust in social media ($\beta = .07, p < .001$), rapid dissemination ($\beta = .11, p < .001$), and transparency ($\beta = .15, p < .001$) were all positively associated with perceived safety, such that the more people trusted the information about Coronavirus given by both official media and social media, and the more they perceived information dissemination as rapid and transparent, the more they felt safe from being infected. Noticeably, trust in official media was a much stronger predictor of perceived safety than trust in social media. In turn, perceived safety was positively related to positive response ($\beta = .23, p < .001$) and negatively linked to depressive response ($\beta = -.26, p < .001$), such that the more people felt safe, the more they displayed positive response and the less they were depressed.

Third, the four exogenous predictors were also directly associated with positive response. Trust in official media ($\beta = .15, p < .001$), trust in social media ($\beta = .02, p < .001$), timely dissemination ($\beta = .15, p < .001$), and transparency ($\beta = .15, p < .001$) were positively related to positive response, such that the more people trusted the information about Coronavirus given by both official media and social media, and the more they perceived information dissemination as rapid and transparent, the more they felt positive towards the Coronavirus. It is noteworthy that the association between trust in social media and positive response was very weak although statistically significant due to the very large sample size.

Finally, the four exogenous predictors were directly associated with depressive response. Trust in official media ($\beta = -.25, p < .001$), timely dissemination ($\beta = -.07, p < .001$), and transparency ($\beta = -.02, p < .001$) were negatively associated with depressive response, such that the more people trusted the official information about Coronavirus and the more they perceived information dissemination as rapid and transparent, the less they felt depressed towards the Coronavirus. On the contrary, Trust in social media was positively associated with depressive response ($\beta = .25, p < .001$), such that the more people trusted the information about Coronavirus given by social media, the more they felt depressed towards the Coronavirus. These findings suggest that trust in official media and trust in social media had opposite direct effect on depressive response, such that trust in official media was a protective factor against depressive emotions while trust in social media was a facilitating factor.

4. Discussion

The overwhelmingly life-changing impacts caused by COVID-19 is unprecedented and no one can escape. The constantly evolving information about the virus and the overloading information and sensationalist reporting all over the social media further fuelled the fear among the public and impact wellbeing. Despite the call for combatting the COVID-19 infodemic through rapid dissemination and transparency [14, 15, 16], there is little understanding of how much the public trust the information from the social media and official media, how the trust in those media affects wellbeing, and how rapid dissemination and

transparency of information can mitigate the negative impact on wellbeing. The present research is to seek empirical answers through a large-sample national survey at the height of COVID-19 outbreak in China. The understanding developed through this study will help policy makers and health intervention initiatives develop targeted strategies to address the mental health challenges presented by the COVID-19 pandemic and protect public's wellbeing.

The results of the present study indicate that the public had more trust in the information about COVID-19 from the official media outlets than from the social media. The present study has further revealed a heterogeneous demographic characteristics with significant variations in trusts across gender, age, and education: both female participants and more educated participants displayed less trust in the information from both media sources; and older participants appeared to have more trust in the information from the social media. In relation to the rapidity of information dissemination and transparency, both female participants and more educated participants were more critical in their evaluation, which was associated with them feeling less safe and being more depressed. Meanwhile, older participants held more positive view regarding the rapidity of information dissemination and transparency, felt safer, and were less depressed. These findings outline that the impact of COVID-19 pandemic on mental health is heterogeneous among the population, highlighting the need and importance of appropriately targeting different population segments with different strategies.

While the social media were flooded with information and sensational news about COVID-19, public's trust in them was low. However, it played a dominant role in contributing to increased depressive symptoms. In contrast, trust in the information from official media was higher, and it played an influential role in contributing to enhanced positive response and decreased depressive symptoms directly and through enhanced perceived safety. The findings suggest that enhancing public trust in information from official media will be an effective approach to fight against the so called COVID-19 infodemic and protect public's wellbeing during the pandemic. This has significant implications for public health measures to combat the pandemic of social media panic. To effectively minimise the negative impact of social media on public mental health, health authorities need to rapidly detect and respond to misinformation and rumours in social media. Monitoring and analysis of the information on social media can develop data-driven insights and communication strategies [4].

The present research demonstrated that trust in official media was highly correlated with rapid dissemination and transparency of the information about COVID-19. Hence, fostering and maintaining public's trust requires rapid dissemination and transparency of information. The trust-building function of transparency revealed in the present study is in line with literature on the general relationship between transparency and public trust. Research on infectious disease found that public trust in government and public health authorities as information source influences public perceived risk and their responses to the threat [29, 30, 31, 32]. Transparency has also been suggested as an effective strategy in maintaining public trust during and post-COVID-19 pandemic [33]. The present study further show that rapid dissemination of information and transparency works hand in hand and contribute directly to positive response. These findings suggest that government and health authorities need to rapidly disseminate

information and update the outbreak through various platforms including their social media accounts to accommodate all segments of the population. The information needs to be transparent, even though communicating uncertainty and a lack of knowledge in the case of the novel COVID-19 can be unsettling. Otherwise, the absence of official information creates a rich breeding ground for misinformation and rumours in social media.

5. Conclusion

The present study has empirically demonstrated that the COVID-19 infodemic can have serious consequence for public's wellbeing. Especially, higher level of trust in the information about COVID-19 in social media was associated with stronger depressive response towards the pandemic. However, trust in the information from official media can mitigate this negative impact. More importantly, the rapid dissemination and transparency of information regarding the virus can enhance public trust in the information from official media outlets. The findings highlight that, to protect public's wellbeing against COVID-19 infodemic, government and health authorities need to rapidly disseminate information and be transparent even though communicating uncertainty and unknowns can be unsettling. Otherwise, the absence of official information creates a rich breeding ground for misinformation and rumours in social media, which has huge consequence for public's wellbeing.

Abbreviations

COVID-19: Coronavirus disease 2019; WHO: World Health Organization

Declarations

Acknowledgement

The authors would like to thank Dr. Rieks Van Klinken, Dr. Paul De Barro, Asaesja Yong, and Bianca Frew for their insightful comments during the development of this paper.

Authors' contributions

JW and AZ conceived and designed the study. JW, XL, and XT collected the data. AZ, YZ, XL, and XT analysed the data. AZ, YZ, RM, XT, and XL wrote the first draft of the manuscript. All authors critically revised the manuscript and approved the final version.

Funding

This study is funded by the Key Program of National Social Science Fund of China (Project Approval No. 16ZDA231).

Availability of data and materials

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Ethics approval and consent to participate

The study was conducted in compliance with the APA ethical standards and 1964 Helsinki declaration and its later amendments in the treatment of human subjects. Ethical approval for the study protocol was obtained from the Academic Committee of Institute of Sociology, Chinese Academy of Social Sciences. Consistent with human research ethics procedures, participants were informed that no personal identifiable information would be collected, that their survey results would remain confidential, and that their participation was voluntary. Participants were asked to click 'I agree' button if they consent to participate the survey.

Consent for publication

Not applicable.

Competing interests

The authors declare they have no competing interests

References

1. Chen F, Zheng D, Liu J, Gong Y, Guan Z, Lou D. Depression and anxiety among adolescents during COVID-19: A cross-sectional study. *Brain Behav Immun.* 2020;88 May:36–8.
2. Huang Y, Zhao N. Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-based cross-sectional survey. *Psychiatry Res.* 2020;288 April:112954. doi:10.1016/j.psychres.2020.112954.
3. Kang L, Ma S, Chen M, Yang J, Wang Y, Li R, et al. Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 novel coronavirus disease outbreak: A cross-sectional study. *Brain Behav Immun.* 2020;87 March:11–7.
4. Li L, Zhang Q, Wang X, Zhang J, Wang T, Gao TL, et al. Characterizing the Propagation of Situational Information in Social Media during COVID-19 Epidemic: A Case Study on Weibo. *IEEE Trans Comput Soc Syst.* 2020;7:556–62.
5. Wang C, Pan R, Wan X, Tan Y, Xu L, McIntyre RS, et al. A longitudinal study on the mental health of general population during the COVID-19 epidemic in China. *Brain Behav Immun.* 2020;87 April:40–8. doi:10.1016/j.bbi.2020.04.028.

6. Cao W, Fang Z, Hou G, Han M, Xu X, Dong J, et al. The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Res.* 2020;287 March:112934. doi:10.1016/j.psychres.2020.112934.
7. González-Sanguino C, Ausín B, Castellanos MÁ, Saiz J, López-Gómez A, Ugidos C, et al. Mental health consequences during the initial stage of the 2020 Coronavirus pandemic (COVID-19) in Spain. *Brain Behav Immun.* 2020;87 May:172–6. doi:10.1016/j.bbi.2020.05.040.
8. Kaparounaki CK, Patsali ME, Mousa DP V., Papadopoulou EVK, Papadopoulou KKK, Fountoulakis KN. University students' mental health amidst the COVID-19 quarantine in Greece. *Psychiatry Res.* 2020;290 May:113111. doi:10.1016/j.psychres.2020.113111.
9. Mazza C, Ricci E, Biondi S, Colasanti M, Ferracuti S, Napoli C, et al. A nationwide survey of psychological distress among Italian people during the COVID-19 pandemic: Immediate psychological responses and associated factors. *Int J Environ Res Public Health.* 2020;17:1–15.
10. Pfefferbaum B, North CS. Mental Health and the Covid-19 Pandemic. *N Engl J Med.* 2020;:1–3. doi:10.1056/NEJMp2008017.
11. Rajkumar RP. COVID-19 and mental health: A review of the existing literature. *Asian J Psychiatr.* 2020;52 March:102066. doi:10.1016/j.ajp.2020.102066.
12. Satici B, Gocet-Tekin E, Deniz ME, Satici SA. Adaptation of the Fear of COVID-19 Scale: Its Association with Psychological Distress and Life Satisfaction in Turkey. *Int J Ment Health Addict.* 2020.
13. Depoux A, Martin S, Karafillakis E, Preet R, Wilder-Smith A, Larson H. The pandemic of social media panic travels faster than the COVID-19 outbreak. *J Travel Med.* 2020;27:1–2.
14. World Health Organization (WHO). Novel coronavirus(2019-nCoV) situation report-13. *World Heal. Organ.* 2020. https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200202-sitrep-13-ncov-v3.pdf?sfvrsn=195f4010_6
15. The Lancet. COVID-19: fighting panic with information. *Lancet.* 2020;395:537. doi:10.1016/S0140-6736(20)30379-2.
16. The Lancet Infectious Diseases. Challenges of coronavirus disease 2019. *Lancet Infect Dis.* 2020;20:261. [https://doi.org/10.1016/S1473-3099\(20\)30072-4](https://doi.org/10.1016/S1473-3099(20)30072-4)
17. Ghebreyesus, TA. WHO Director-General speech at Munich Security Conference. Feb 15, 2020. <https://www.who.int/dg/speeches/detail/munich-security-conference>
18. Moon MJ. Fighting COVID-19 with Agility, Transparency, and Participation: Wicked Policy Problems and New Governance Challenges. *Public Adm Rev.* 2020;80:651–6.
19. Rahimi F, Talebi Bezmin Abadi A. Transparency and information sharing could help abate the COVID-19 pandemic. *Infect Control Hosp Epidemiol.* 2020;:1–2.
20. Spalluto LB, Planz VB, Stokes LAS, Pierce R, Aronoff DM, McPheeters ML, et al. Transparency and Trust During the Coronavirus Disease 2019 (COVID-19) Pandemic. *J Am Coll Radiol.* 2020;17:909–12. doi:10.1016/j.jacr.2020.04.026.

21. Liu M, Zhang H, Huang H. Media exposure to COVID-19 information, risk perception, social and geographical proximity, and self-rated anxiety in China. *BMC Public Health*. 2020;20:1649. doi:10.1186/s12889-020-09761-8.
22. Ren Z, Zhou Y, Liu Y. The psychological burden experienced by Chinese citizens during the COVID-19 outbreak: Prevalence and determinants. *BMC Public Health*. 2020;20:1–10.
23. American Psychological Association. Ethical Principles of Psychologists and Code of Conduct. <https://www.apa.org/ethics/code/index>, retrieved on 3 December 2020.
24. WMA Declaration of Helsinki - Ethical Principles for Medical Research Involving Human Subjects. <https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/>, retrieved on 3 December 2020.
25. Kuhl EA, Dixit NK, Walker RL, Conti JB, Sears SF. Measurement of patient fears about implantable cardioverter defibrillator shock: An initial evaluation of the Florida shock anxiety scale. *PACE - Pacing Clin Electrophysiol*. 2006;29:614–8.
26. Tripp C, Huber NL, Kuhl EA, Sears SF. Measuring ICD shock anxiety: Status update on the Florida Shock Anxiety Scale after over a decade of use. *PACE - Pacing Clin Electrophysiol*. 2019;42:1294–301.
27. Byrne BM. *Structural equation modeling with AMOS: basic concepts, applications, and programming*. Mahwah: Lawrence Erlbaum Associates; 2001.
28. Wen Z, Hau K, Marsh HW. Structural equation model testing: Cutoff criteria for goodness of fit indices and Chi-square test. *Acta Psychologica Sinica*. 2004;36:186–194. (in Chinese)
29. d’Alessandro E, Hubert D, Launay O, Bassinet L, Lortholary O, Jaffre Y, et al. Determinants of refusal of A/H1N1 pandemic vaccination in a high risk population: A qualitative approach. *PLoS One*. 2012;7:e34054.
30. Mayor E, Eicher V, Bangerter A, Gilles I, Clémence A, Green EGT. Dynamic social representations of the 2009 H1N1 pandemic: Shifting patterns of sense-making and blame. *Public Underst Sci*. 2013;22:1011–24.
31. O’Brien BC. Do You See What I See? Reflections on the Relationship between Transparency and Trust. *Acad Med*. 2019;94:757–9.
32. Porumbescu G. Linking Transparency to Trust in Government and Voice. *Am Rev Public Adm*. 2017;47:520–37. doi:10.1177/0275074015607301.
33. Henderson J, Ward P, Tonkin E, Meyer S, Pillen H, McCullum D, et al. Developing and Maintaining Public Trust During and Post-COVID-19: Can We Apply a Model Developed for Responding to Food Scares? *Front Public Heal*. 2020;8 July:1–7.

Figures

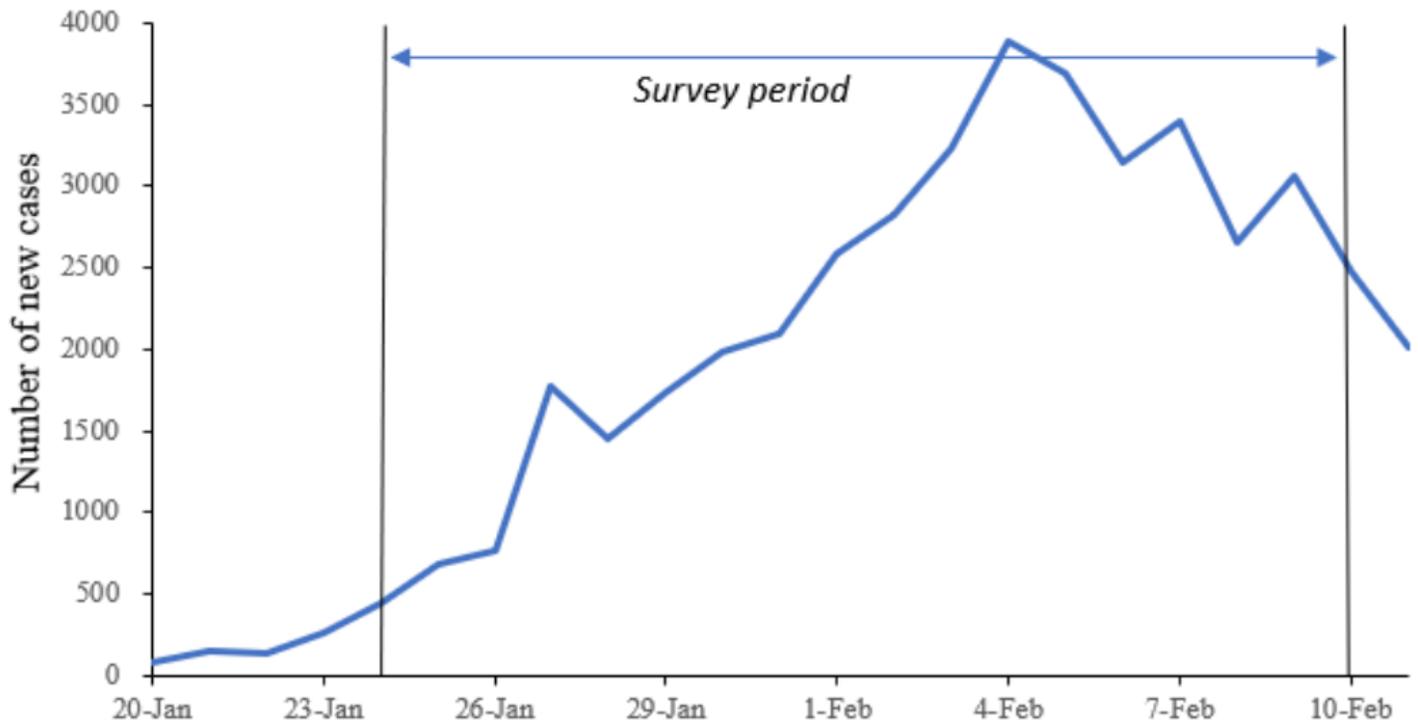


Figure 1

Number of daily new confirmed coronavirus cases in China

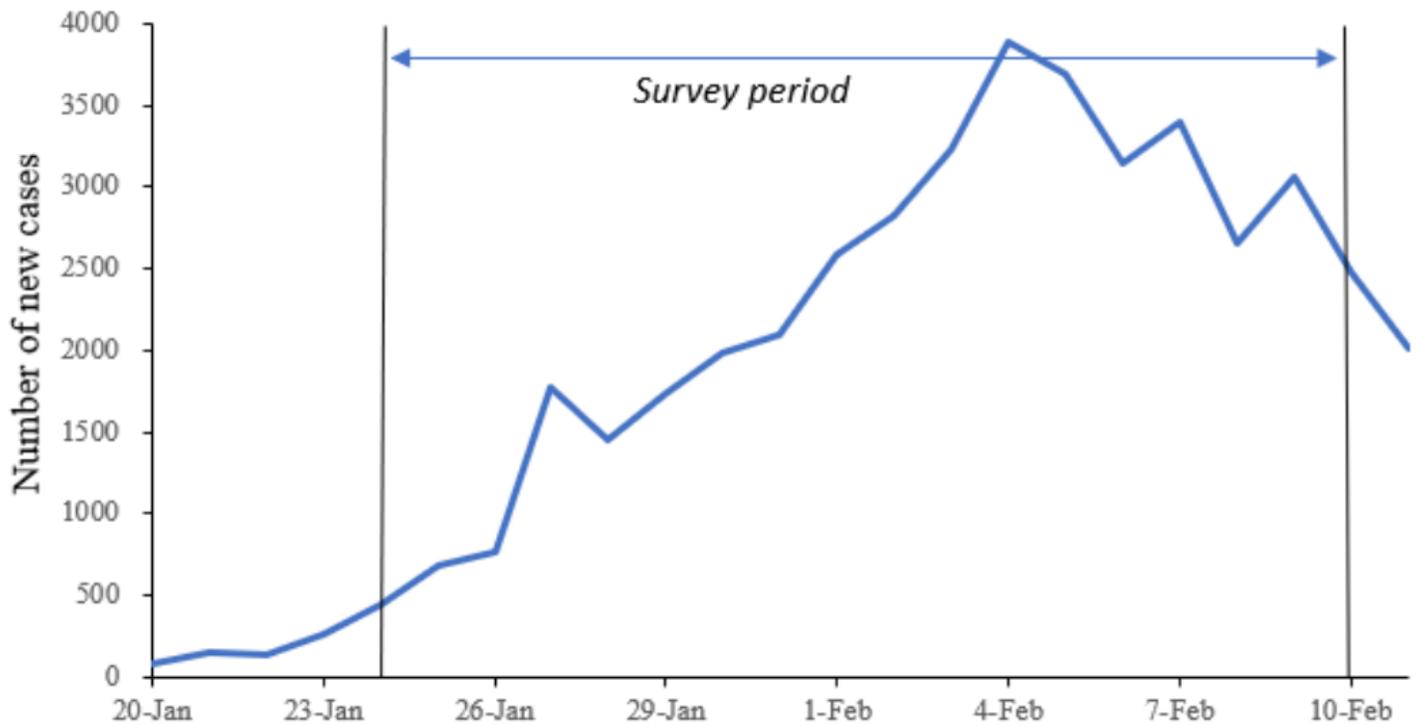


Figure 1

Number of daily new confirmed coronavirus cases in China

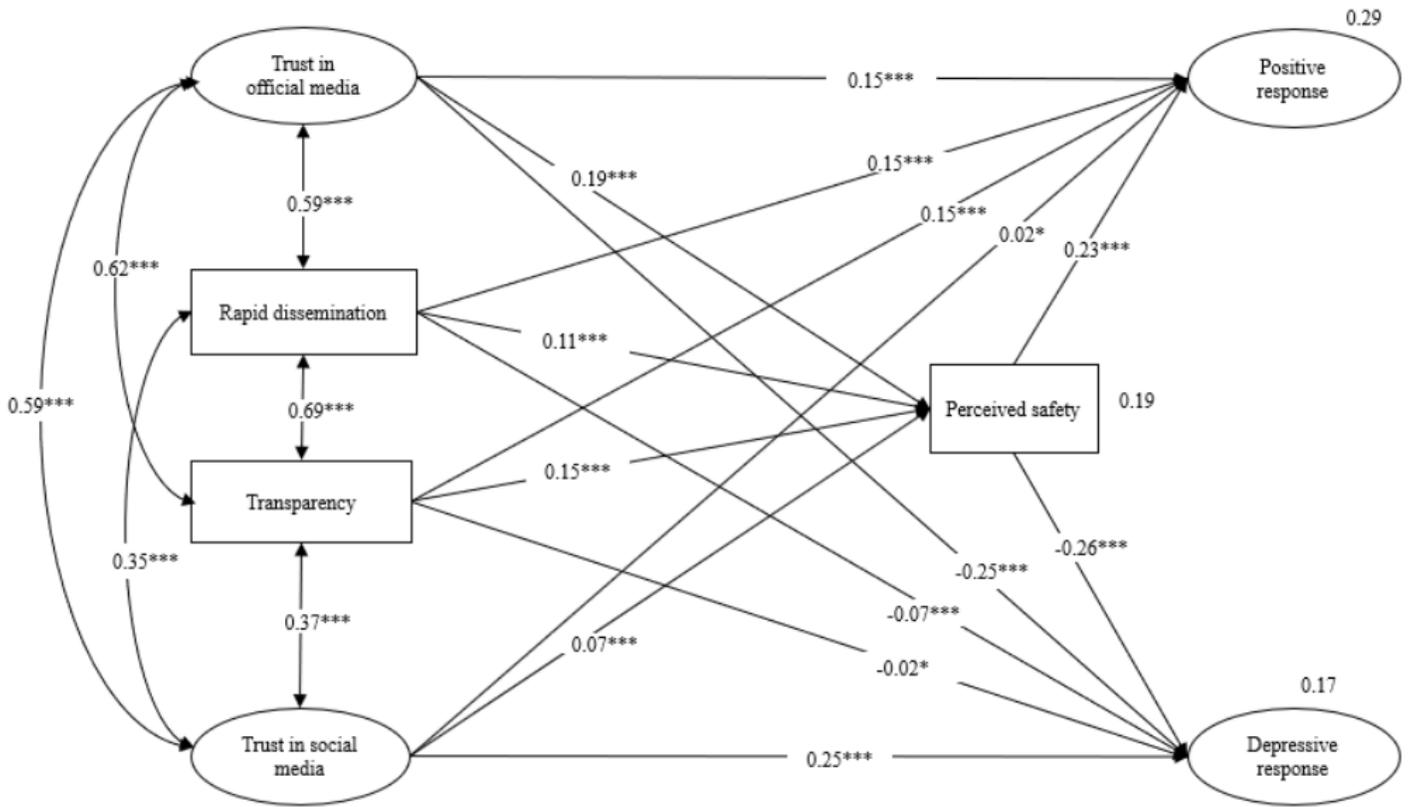


Figure 2

Dynamic interactions between the measured variables in predicting emotional response towards COVID-19

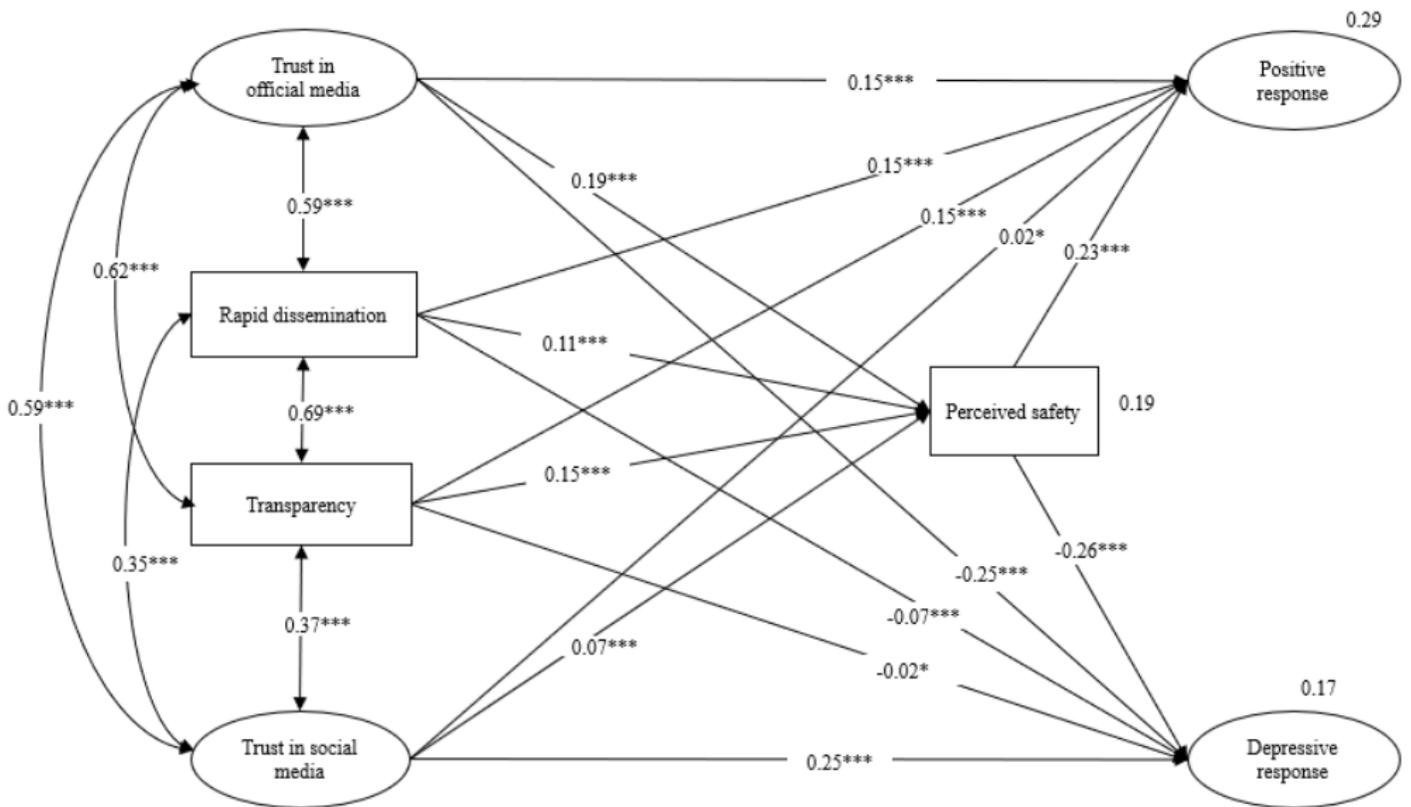


Figure 2

Dynamic interactions between the measured variables in predicting emotional response towards COVID-19