Comparing Levels of Situational Empathy Based on Medium of Exposure to COVID-19 Mortality Information and Proximity to Others

Beth Durkin
bdurkin@bgsu.edu

Follow this and additional works at: https://scholarworks.bgsu.edu/honorsprojects

Part of the Community Health and Preventive Medicine Commons, Community Psychology Commons, Health Policy Commons, Health Psychology Commons, International Public Health Commons, Politics and Social Change Commons, Psychological Phenomena and Processes Commons, Public Health Education and Promotion Commons, Rural Sociology Commons, and the Social Psychology Commons

How does access to this work benefit you? Let us know!

Repository Citation
https://scholarworks.bgsu.edu/honorsprojects/919

This work is brought to you for free and open access by the Student Scholarship at ScholarWorks@BGSU. It has been accepted for inclusion in Honors Projects by an authorized administrator of ScholarWorks@BGSU.
Comparing Levels of Situational Empathy Based on Medium of Exposure to COVID-19 Mortality Information and Proximity to Others

Bethany D. Durkin

Bowling Green State University

March 24, 2023
Abstract

In response to the COVID-19 pandemic, many people expressed a lax attitude to the policies put in place to keep the public safe despite the high risk of infection and its devastating effects on health across the United States. It is possible that this response may be partially due to a “numbness to numbers,” a phenomenon that describes diminished empathy for a large group of people experiencing a negative event (eg. COVID-19). The present study explored the relationship between levels of situational empathy and the medium of exposure to COVID-19 mortality information (eg. personal story or fact sheet) in an undergraduate student sample. Additionally, it may be possible that a person’s proximity to others may influence health-informed behaviors given the easily contagious nature of the COVID-19 virus. Proximity in others is later explored in further detail.

We hypothesized that there would be a higher empathetic response towards personal accounts of experiences with COVID-19 mortality. We also hypothesized that a lower empathy response would correspond with exposure to COVID-19 mortality statistics via a fact sheet. Participants completed an online survey that exposed them to either a video interview condition of a personal loss due to COVID-19 or a statistics condition with a fact sheet about COVID-19 mortality. Participants then answered questions about their reaction to the condition that gauged their feelings of empathy (eg., trait, situational).
Comparing Levels of Situational Empathy Based on Medium of Exposure to COVID-19 Information

Despite the high risk of long-term health effects and mortality from the COVID-19 virus (CDC, 2022), many people failed to follow policies put in place to keep themselves safe from infection. Even though a large number of groups were considered particularly vulnerable to the effects of the virus (eg. people with diabetes, older adults), many people in the United States downplayed the seriousness of the pandemic and chose behaviors that put others at risk of exposure to COVID-19. With numerous sources of stress stemming from the start of the COVID-19 pandemic such as health concerns, economic changes, decreased social support, and drastic work environment changes (Van Kessel et al., 2021), it may be the case that following COVID-19 precautions was prioritized less than other responsibilities, especially as the pandemic progresses (i.e., “pandemic fatigue”). Other interpersonal qualities such as a person’s level of empathy may also help shed insight on these disparate trends in following government policies by the general public, a speculation supported by research suggesting that empathy and compassion are positively associated with greater concern for others’ health and following government health policies (Karnaze et al., 2022). To this end, the present study explored the relationship between levels of situational empathy and the medium of exposure to COVID-19 mortality information (eg. personal story or statistic fact sheet) in an undergraduate student sample to better understand the potential role of individual empathy on COVID-19 health behaviors and the public response.

The COVID-19 Pandemic
The COVID-19 virus continues to be a strong force impacting the health and daily lives of Americans. Recently, research has focused on the burnout effects from the cumulative stress of the pandemic and how it has contributed to a decrease in productivity and satisfaction in many Americans (Saey, 2022). Early healthcare response and following of control measures to prevent the spread of COVID-19 are valuable in decreasing infections and deaths during the pandemic, and apathy towards health guidelines is noted as a major influence to increased infection and death rates due to COVID-19 (Abdulla et al., 2021). Unfortunately, this apathy towards health guidelines may be part of “pandemic fatigue,” defined as a decrease in motivation for health-protective behaviors such as wearing a mask and quarantining at home (WHO, 2020). Pandemic fatigue has been associated with ongoing emotional stressors such as social isolation and economic changes from COVID-19 (Lilleholt et al., 2020), which makes recovering from the pandemic even more difficult (Taylor, 2022).

Because of the numerous and lasting economic, mental, and physical health consequences of COVID-19, more research is needed to help explain the public’s different responses towards health-protective behaviors and pandemic fatigue. One avenue toward understanding this varying behavior is the concept of “numbness to numbers.”

**Numbness to Numbers**

Previous research suggests that in some individuals, a large disconnect is found between the high amount of people negatively impacted by the virus and the perceived impact of one’s own actions (Taylor, Rachor, & Asmundson, 2022). This gap may be explained by a “numbness to numbers” (Fetherstonhaugh et al., 1997), or a person’s decreased empathy towards increasing numbers of people experiencing a negative event. Although it would make sense for a person to feel heightened empathy for larger groups of people negatively impacted by an event (e.g.,
COVID-19), instead it has been found that feelings of empathy decline in individuals when faced with an increased amount of people experiencing a negative event (Slovic & Slovic, 2015). Additionally, analyses of MRI scans show us that a person’s brain shows a smaller response in the prefrontal cortex to both negative and neutral emotions expressed by a large group of people compared to when expressed by individuals (Ye et al., 2020). This data may account for a greater empathetic response to personal stories of negative events (eg. personal loss due to COVID-19) compared to statistical data that accounts for a larger group of people. Even for horrific global events such as natural disasters or genocide, this psychological numbing may prevent people from fully connecting to the severity of negative events and the difficulties the people affected by them face (Slovic, 2007).

This trend has been continually studied within clinical settings as healthcare workers experience burnout and fatigue throughout their career, and has also been applied to experiences of COVID-19 and pandemic fatigue. It has been found that the experience of pandemic fatigue may decrease the quality of care provided by healthcare workers despite the severity of the virus (Labrague, 2021). While it is especially important for healthcare workers to practice health-protective behaviors while they are serving patients who may be exposed to and affected by COVID-19, the general public also shares a responsibility to protect their communities by preventing the spread of the virus by practicing health-protective behaviors. This phenomenon is critical in understanding the public’s perception of widespread negative events such as the COVID-19 pandemic and the way a public response affects the people who are most impacted by the virus, such as immunocompromised groups. One key variable that may further our understanding of the relationship between the COVID-19 pandemic and health-protective
behaviors is individual empathy, specifically situational empathy in response to COVID-19 mortality information.

**Empathy**

Empathy is an especially important tool for navigating the world around us as humans are highly social creatures and need to frequently interact with other humans to thrive and survive. Empathy can be defined as the ability to relate to other people, including taking the perspective of someone else or imagining how one would feel in a certain scenario (Surma-aho & Katja Hölttä-Otto, 2022). Trait empathy is one aspect of the broader definition of empathy, describing the stable ability of a person to connect with different perspectives across multiple scenarios (Zhou et al., 2021). Although this is important when studying how a person navigates interactions with others in their day-to-day life, it is difficult to use trait empathy to measure how a person reacts to a specific event such as the COVID-19 pandemic. There is a noticeable gap in how trait empathy applies to the pandemic and the public’s behavioral response to health guidelines. While we know that empathy does motivate individuals to help others in need, especially those apart of marginalized and vulnerable groups (Baston, 2011), this is not congruent in the way individuals have responded to health guidelines set in place to help groups that are more at risk for infection and death from the COVID-19 virus. It has been found that trait empathy may have been decreased in individuals as a result of the stress from the COVID-19 pandemic (Baiano et al., 2022), but this effect has only occurred with the social skills aspect of empathy.
Situational empathy can be used to measure a person’s empathetic response in the moment and may be different than trait empathy due to a person’s current affect, biases, and personal history (Zhou et al., 2021). Previous research with situational empathy has used this concept to better understand the relationship between medical school curriculum and decreasing levels of empathy in students (Bonuso, 2013) and how emotions and empathy can influence one another (Eisenberg, 1994). For example, Bonuso (2013) found that situational empathy decreased in a sample of medical students at Weill Cornell Medical College over time, in that by their fourth year of medical school, their levels of situational empathy had decreased while dispositional empathy (i.e. trait empathy) remained level.

Taken in accordance with the idea that empathy may negatively affect the quality of care given by healthcare workers during a pandemic (Labrague, 2021), further studying situational empathy and its role in health-protective behavior may help us learn how to protect our community and prevent the spread of COVID-19. Previous research has typically measured situational empathy by recording emotional responses and interpretations of events from participants immediately after exposure to a specific event (Zhou, et al., 2003). For example, Haegerich & Bottoms (2007) used a self-report situational empathy measure to assess participants’ emotional reactions and feelings of empathy in response to trial transcripts given in a court-juror setting and found a high internal consistency in their measure ($\alpha = .85$). Other research studying situational empathy has modified well-validated measures of trait empathy to correspond with their specific experimental event, such as the Interpersonal Reactivity Index (Davis, 1983) and found a high internal consistency ($\alpha = .88$) for state empathy this way (Murphy et al., 2018).
In this study, we measured both trait and situational empathy to understand how much of an effect the medium of exposure has on an individual’s temporary empathetic response by measuring trait empathy as a baseline before experimentation and measuring situational empathy specifically for the exposures we are using. This also improves the validity of collected data by accounting for any possible differences between participants’ trait and situational empathy scores.

**Proximity to Others**

Proximity to others may further describe an individual’s empathy and health-protective behaviors in relation to the COVID-19 pandemic. The amount of people a person lived around during the height of the pandemic (i.e., March 2020 – December 2020) may influence the amount of concern that a person has for infection and infecting others due to the frequency and extent of their interactions with other people. Specifically, people living in a less-populated area may feel less concern for practicing health-protective behaviors compared to people living in an urban environment. Based on a study of perceived barriers in receiving healthcare for adolescents living in a rural area (i.e. low-populated area), thinking a health problem will fix itself or go away was highly reported as an explanation for not seeking healthcare, tied to feelings of apathy of health-protective behaviors (Hardin et al., 2021). From this, a person living in a less populated area may feel less concern about events of the COVID-19 pandemic compared to someone living in a highly populated area and experience lower levels of situational empathy in response to COVID-19 mortality information. In addition to proximity to others, a person’s empathetic response to the COVID-19 pandemic may vary due to their own personal experiences of loss caused by the pandemic.
For us to measure a person’s proximity to others, participants will complete a self-report measure of how populated the area they lived in was during the COVID-19 pandemic. We hypothesize that a person living in a highly populated area will express greater situational empathy towards the COVID-19 pandemic. Additionally, we hypothesize that a person living in an area that is less populated will have a lower empathetic response to COVID-19 mortality.

Personal Experience with COVID-19

Personal experiences relating to loss due to COVID-19 may also further describe an individual’s empathetic response to events relating to the COVID-19 pandemic. Specifically, someone who has experienced the death of a loved one from COVID-19 may be more aware of the personal effects from the pandemic and respond with greater situational empathy to the experimental conditions. Someone who has experienced their own loss may be able to more easily connect to the information presented to them and apply that to their own lived experiences, which may heighten their emotional responses (Gerace et al., 2015). We hypothesize that someone who has experienced a personal loss due to COVID-19 will report more empathy towards the COVID-19 information presented to participants than those who do not report experiencing personal loss. We hypothesize that this difference will occur in both the video and fact sheet conditions.

The Present Study

In this study, we seek to better understand the disconnect between the danger of the COVID-19 virus and the low rate of health-protective behaviors practiced by the general public. Understanding potential explanations for this gap between expectation and reality in the public’s response to the pandemic may provide insights into how we can better motivate people to keep themselves and the people around them safe from the COVID-19 virus.
This difference may be explained by the “numbness to numbers” phenomenon in that individuals may hold less responsibility for their health-protective behavior as the number of people affected increases, which may be inversely associated with empathy. However, these speculations have yet to be reflected in the empirical literature. As such, we hypothesized that participants who are a part of the video interview condition, who had watched a personal anecdote of someone’s loss due to COVID-19 would have a higher situational empathy score, while participants in the statistics fact sheet condition, who had viewed a list of total COVID-19 mortality information in America as of 2022, would report lower levels of situational empathy as this condition would reflect information from a much larger number of people.

Furthermore, irrespective of experimental condition, we hypothesized that participants who lived in highly populated areas during the height of the pandemic would experience greater levels of situational empathy, while participants who lived in a low populated area would experience lower levels of situational empathy. Finally, we hypothesized that participants who have experienced the death of a loved one due to COVID-19 will report higher situational empathy responses than participants who do not report experiencing personal loss from COVID-19, irrespective of experimental condition.
References


https://doi.org/10.1080/00223890802484381


https://doi.org.ezproxy.bgsu.edu/10.1371/journal.pone.0276791


https://doi.org/10.1145/3449087