

RESEARCH ARTICLE

Do Generations Matter? The Moderating Role of Media in Adherence to COVID-19 Quarantine Protocol

Luz Suplico Jeong, Reynaldo Bautista, Jr., Nelson B. Guillen Jr. and Solomon Oluyinka
De La Salle University, Manila, Philippines
luz.suplico@dlsu.edu.ph

This study examined the perceptions of Filipinos from Generations X, Y, and Z towards adherence to COVID-19 quarantine protocol. Of the 400 Filipino respondents, 55 were Generation Xers, 86 were from Generation Y, whereas 259 were from Generation Z. Using the theory of planned behavior, the results suggest that there were no significant differences in how Generations X, Y, and Z responded to the quarantine protocol even if media moderated the relationship between self-efficacy and adherence to quarantine protocol. Thus, marketers can use a standardized campaign to encourage Generations X, Y, and Z to adhere to the quarantine protocol.

Keywords: Generations X, Y, and Z, COVID-19, Theory of Planned Behavior

JEL Classification: D12

Studies show that older Filipinos who are 50 years old and above tend to be at risk of COVID-19 because most of them have comorbidities that make them vulnerable to COVID-19 infection (Garcia et al., 2020; Salva et al., 2020; University of the Philippines Population Institute (UPPI) and Demographic Research and Development Foundation, Inc. (DRDF), 2020). In a study of what age was at risk, UPPI and DRDF (2020) reported that not only were there more COVID-19 cases among the older age groups (50 and older) but there were more deaths due to COVID-19 in this age group at the

start of the Enhanced Community Quarantine last March 2020. However, data from the UPPI and DRDF (2020) around July 2020 showed that the number of COVID-19-infected individuals from the age group 50 and older declined while there was a spike in COVID-19 cases among individuals below 25 and those 35–49 years old. This implies a shift in the age group infected by COVID-19 from the older age group of 50 and older to younger age groups of 35–49 and below 25. UPPI and DRDF (2020) explained that this can be attributed to people aged 35–49 and those below 25 being part of the

mobile groups that returned to work when the general community quarantine was relaxed.

The changing demographics imply that although Generation X was at risk at the start of the enhanced community quarantine, the younger generations of Y and Z, who were more mobile than Generation X, showed increased COVID-19 infections when the quarantine protocol was relaxed. Other studies show that COVID-19 grows exponentially with age because the gene expression of ACE2 (the SARS-CoV-2 receptor) grows in the lungs with age (Santesmasses et al., 2020). According to Santesmasses et al. (2020), COVID-19 and other deadly respiratory diseases should be considered novel and emergent aging diseases. Further, they recommended that health approaches should boost the immune system of the elderly.

Although most COVID-19 cases in the world affected the elderly, the largest cases of COVID-19 patients in Hong Kong were 15–24 years old, although the population showed a rapidly aging structure (Cruz et al., 2020). According to Cruz et al. (2020), this was due to the imported cases from the large overseas student population in COVID-19 hotspots like the United Kingdom. This suggests that even if COVID-19 is an emergent disease of aging, this is not a given. Thus, there is a need to know and analyze if age would matter in COVID-19 transmission and prevention. This study examined the perceptions of Generations X, Y, and Z towards adherence to COVID-19 protocol. Further, it examined if media could affect the adherence to quarantine protocol of Generations X, Y, and Z. This study aims to contribute to the scant literature on this field.

Review of Related Literature

Generations X, Y, and Z

Generation X

Born between 1965 and 1979, Generation X grew up in a time of instability, unemployment, and economic turmoil (Alsop, 2008). With ages between 42–56, Generation X is predicted to be the most prepared for isolation and quarantine as they used to arrive in an empty home from school because their single parents were at work (Zemke et al., 2000). According to Zemke et al. (2000), Generation X spent a lot of time alone as children. Sandwiched between two generations,

Generation X is caring for their parent and their kids. This implies that Generation X is concerned about their parents' health, their health, and their kids' health. Of all the generations, it is Generation X that will likely have an intergenerational co-residential arrangement. This generation is likely to exhibit altruistic behavior, such as adherence to quarantine protocol, for the common good (Bautista, 2019).

Generation Y

Born between 1980 and 1993, Generation Y is also known to be civic-minded (Alsop, 2008; Zemke et al., 2000). Although many age ranges are attributed to Generation Y, they are between the ages of 28 and 41. Known as the millennials, they gravitate towards volunteer work for the betterment of the community (Zemke et al., 2000). They are confident, hopeful, goal-oriented, and possess a can-do attitude. This implies that they may be attracted to comply with the quarantine protocol for the common good.

Generation Z

Born between 1994 and 2010, Generation Z is the newest generation to enter the workplace (Jayathilake et al., 2021). Between the ages of 11 and 27, Generation Z is known as the internet generation. They appear to be trendsetters and image-conscious for the sake of being “in” with the crowd. Further, their second home is online. This suggests that they will most likely learn about COVID-19 protection measures online. According to Jayathilake et al. (2021), this generation has experienced climate change, extremism, financial crisis, rainbow, and me-too (feminist) moments since childhood. Of all generations, this generation wants to set up their businesses (Jayathilake et al., 2021).

Quarantine Protocol of the Philippine Department of Health

The Philippine Department of Health (2021) released the following health advisory regarding the quarantine protocol: (a) maintain one-meter distance as much as possible, especially for those who are not well, (b) wear face masks and shields, (c) wash your hands as often as you can, (d) avoid contact with animals, (e) cover your cough and sneezes with your elbows, (f) coordinate with appropriate health authorities if you have a fever, cough, colds, or breathing problems, and (g) isolate if you have COVID-19. These advisories are communicated in

Filipino on the Department of Health website for more accessible communication.

Because the co-residential arrangement is common among Filipinos, it is usual for grandparents to live with their married children and their grandchildren. The study of older Filipinos who were 60 years old and above revealed that 87% lived with their adult child (Cruz et al., 2019). This implies that intergenerational contact between Generations X, Y, and Z tends to be common in a family home. Due to the rise of infections traced to home quarantine, the Philippine government disallowed home quarantine in September 2020 and advised mild and asymptomatic patients to isolate (Andrade et al., 2020). As part of this new policy, hotels were converted into isolation centers as hospitals reached their full capacity (Andrade et al., 2020).

Theory of Planned Behavior

The theory of planned behavior has been used as a framework to understand health behaviors such as wearing or not wearing masks as a health protection behavior against COVID-19 (Kim & Tandoc, 2021) and factors affecting the perceived effectiveness of COVID-19 measures among Filipinos (Prasetyo et al., 2020). According to the theory of planned behavior, attitude towards the behavior, subjective norms towards the behavior, and perceived behavioral control will influence the intention to perform a behavior (Ajzen, 1985). Ajzen stressed that the intention to perform a behavior will predict actual behavior (1985).

Attitude refers to the person's favorable or unfavorable behavior assessment, whereas subjective norms refer to the pressures from family, friends, and peers to perform the behavior (Ajzen, 1985). On the other hand, perceived behavioral control refers to the ease or difficulty of accomplishing the behavior. Perceived behavioral control can be broken into controllability and self-efficacy (Petl et al., 2010). Controllability refers to how much control a person has over a behavior, whereas self-efficacy refers to how confident a person can perform a behavior (Petl et al., 2010).

In this study, attitudes towards a behavior will be attitudes towards adherence to the quarantine protocol, whereas subjective norm will be the influence of family, friends, and colleagues to perform a behavior. Perceived behavioral control will refer to concepts of controllability and self-efficacy. Controllability will be how much control a person has to adhere to the COVID-19 quarantine protocol, whereas self-efficacy will be how certain or uncertain a person can adhere to the COVID-19 quarantine protocol.

Attitude and Adherence to COVID-19 Protocol

Curseu et al. (2021) found that attitude toward protective behavior against COVID-19 would affect the intention to engage in protective behavior. These findings were supported by studies that showed that attitude predicted the intention to engage in health behavior and actual behavior (Chan et al., 2020; Prasetyo et al., 2020). Curseu et al. (2021) also

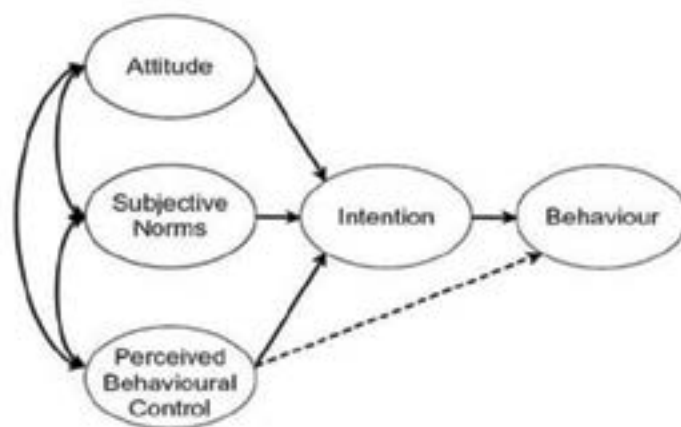


Figure 1:

The Theory of Planned Behavior (Ajzen, 1985)

pointed out that age was positively associated with negative attitudes towards COVID-19, but there was no significant association with protective behavioral intentions. According to Curseu et al. (2021), more attention needs to be devoted to older generations because of their negative attitudes towards COVID-19 compared to younger generations. Further, it was pointed out that the older generations may have a different attitude towards COVID-19 health protection behavior as they did not have the digital skills to seek and analyze accurate information online regarding COVID-19.

The quarantine protocols to prevent the spread of COVID-19, such as isolation and no physical contact (hugging, handshake, and holding hands), may adversely affect the attitude of older people as these are associated with morbidity, mortality, and loneliness (Roy et al., 2020). Some studies show that physical contact, such as holding hands, hugging, and massaging, positively reduces blood pressure and physical pain and increases immunity, especially among the older population that may be suffering from comorbidities (Sumioka et al., 2013). This leads to the following hypotheses:

- H1. There is a positive relationship between attitude and adherence to quarantine protocol.
- H2. There is a significant difference between attitude and adherence to quarantine protocol when compared by generations.

Subjective Norm and Adherence to Quarantine Protocol

A study on South Koreans who wore masks during their leisure activity showed that they wore masks because they wanted to protect their families from COVID-19 (Kim et al., 2020). The pressure to protect family, friends, peers, and community leaders has influenced people to engage in protective behavior against COVID-19 (Chan et al., 2020; Kim et al., 2020; Pertl et al., 2020; Prasetyo et al., 2020; Webster et al., 2020). Although isolation would be more challenging for the elderly as this was associated with negative thoughts of loneliness, morbidity, and mortality (Roy et al., 2020), a study of American adults (60 and above) showed that the social influence of friends and family (subjective norms) influenced their intention to remain socially

distant to prevent the spread of COVID-19 (Callow et al., 2020).

Unlike the elderly, reports of millennials and Generation Z's non-adherence to protective behavior against COVID-19 were rampant despite local and state ordinances in the United States (Gharzai et al., 2020). According to Gharzai et al. (2020), young people, such as millennials and Generation Z, were seen on beaches and bars despite the government's ordinance for social isolation to prevent the spread of COVID-19. This implies that these young people were not sensitive to the social pressures from family, friends, peers, and lawmakers to observe social distancing. This leads to the following hypotheses:

- H3: There is a positive relationship between subjective norms and adherence to quarantine protocol.
- H4. There is a significant difference between subjective norms and adherence to quarantine protocol when compared by generations.

Perceived Behavioral Control and Adherence to Quarantine Protocol

The studies done by Godbersen et al. (2020) and Prasetyo et al. (2020) showed that perceived behavioral control affected adherence to quarantine protocol. Pertl et al. (2020) classified perceived behavioral control into self-efficacy and controllability. Questions about how easy or difficult it is to adopt a behavior measured self-efficacy, whereas questions about whether the behavior is under control measured controllability. Pertl et al. (2020) concluded that self-efficacy predicted the intention to use sunscreen to prevent cancer, whereas controllability predicted the intention to use sunbeds. The study by Kim and Tandoc (2020) showed that self-efficacy was significant in adopting a health-promoting behavior, such as wearing face masks.

The research on millennials and Generation Z's failure to observe social isolation as they were seen on beaches and bars shows that the inability to follow the state ordinance and control the desired behavior predicted non-compliance (Gharzai et al., 2020). However, the elderly found it easier to adopt social distancing (Callow et al., 2020). This leads to the following hypotheses:

H5. There is a positive relationship between self-efficacy and adherence to quarantine protocol.

H6. There is a significant difference between self-efficacy and adherence to quarantine protocol when compared by generations.

H7. There is a positive relationship between controllability and adherence to quarantine protocol.

H8. There is a significant difference between controllability and adherence to quarantine protocol when compared by generations.

Media and Adherence to Quarantine Protocol

The study by Kim and Tandoc (2020) concluded that health advisories shown in mass media such as TV, radio, newspapers, websites, and magazines encouraged the respondents to adhere to health-promoting behavior. The fact that media has influenced adherence to quarantine protocol has been validated in various studies (Godbersen et al., 2020; Plaisime et al., 2020; Webster et al., 2020; Zhao et al., 2020).

H9. There is a positive relationship between media and adherence to quarantine protocol.

Attitude has been a significant predictor of adherence to quarantine protocol (Anwar et al., 2020; Chan et al., 2020; Curseu et al., 2021; Prasetyo et al., 2020). According to Zhao et al. (2020), the media plays a crucial role during a pandemic as it can influence viewers to have a favorable attitude toward health-protection behavior against COVID-19.

H10. Media moderates the relationship between attitude and adherence to quarantine protocol.

Although mass media can inform the public of health-prevention measures against COVID-19, it can also be used to connect families and friends through video chats, texts, and phone calls (Anwar et al., 2020). This implies that families and friends can inspire people to be more concerned about their health and to adopt the quarantine protocol. Mass media can encourage altruistic behavior so that persons can adhere to quarantine protocol for the sake of their families, friends, and peers (Webster et al., 2020).

H11. Media moderates the relationship between subjective norms and adherence to quarantine protocol.

The study by Kim and Tandoc (2020) recommended that health advisories in mass media should detail specific instructions on when, where, why, and how to enable people to be confident that they could adopt the health-prevention behavior against COVID-19. This implies that media can moderate the relationship between self-efficacy and adherence to quarantine protocol. This leads to the following hypothesis:

H12. Media moderates the relationship between self-efficacy and adherence to quarantine protocol.

A study on media's effect on adherence to COVID-19 preventive behavior showed that CNN and Fox News influenced adherence to COVID-19 preventive behavior. Viewers who trusted Fox more than CNN adhered to less preventive behaviors than those who trusted CNN more than FOX (Zhao et al., 2020). This suggests that media can influence viewers to be able to perform health-prevention measures against COVID-19. This leads to the following hypothesis:

H13. Media moderates the relationship between controllability and adherence to quarantine protocol.

Through infodemics (information about the epidemic), mass media plays an essential role in enabling people to have the confidence to adhere to quarantine protocols (Anwar et al., 2020). When social media reported that millennials and students (college and high school) in the United States went to beach parties in anticipation of their annual Spring break, this disregarded the importance of social distancing (Anwar et al., 2020). According to Anwar et al. (2020), the claim that COVID-19 will affect the elderly in social media caused the removal of the elderly from their family homes and increased the abuse against them. Mass media can influence the public to have the confidence to adopt COVID-19 prevention measures by providing timely and clear information (Webster et al., 2020).

H14. There is a significant difference in the moderating effect of media between self-efficacy and adherence to quarantine protocol when compared by generation.

Adherence to Quarantine Protocol

Adherence to a quarantine protocol to minimize the spread of COVID-19 can vary by generation (Webster et al., 2020). Social media reported that young people from Generations Y and Z joined beach parties which disregarded social distancing (Anwar et al., 2020; Gharzai et al., 2020), whereas the older generation found it easier to adopt social distancing for altruistic reasons (Callow et al., 2020; Webster et al., 2020). As COVID-19 is a pandemic that will infect the old and young, there should be intergenerational collaboration to adopt healthy behaviors to minimize the spread of COVID-19. Burke (2020) believes intergenerational collaboration can lead to a stronger fight against COVID-19. Work-conducive intergenerational working arrangements in virtual offices are also recommended (Urlick, 2020).

Conceptual Framework

Figure 2 shows the study's conceptual framework, which demonstrates that attitude, subjective norms, self-efficacy, and controllability would predict adherence to quarantine protocol based on Ajzen's (1985) theory

of planned behavior. Media that comprises traditional and new media is added as an additional construct to determine if it will moderate the relationships between attitude, subjective norms, self-efficacy, controllability, and adherence to quarantine protocol.

Methodology

Due to COVID-19, there was no face-to-face collection of data. After pre-testing the survey questionnaires, the researchers emailed self-administered surveys to Metro Manila, Philippines respondents. The questionnaires were emailed to respondents between March 15 and April 15, 2020. It should be noted that these dates were the start of the Enhanced Community Quarantine. Four hundred respondents answered the survey. Of this number, 200 were males and 200 were females. Because Metro Manila had the highest incidence of COVID-19, it was chosen as the survey's locale (Department of Health, 2021).

The six sections covered in the survey were attitude, subjective norms, self-efficacy, controllability, media, and adherence to quarantine protocol. Television, Facebook, online newspapers, and Instagram were the media forms that were used in the survey. To measure the respondents' perceptions, there were four questions per section. The survey used a 5-point Likert (1 – strongly disagree, 2 – disagree, 3 – neutral, 4- agree, and 5- strongly agree).

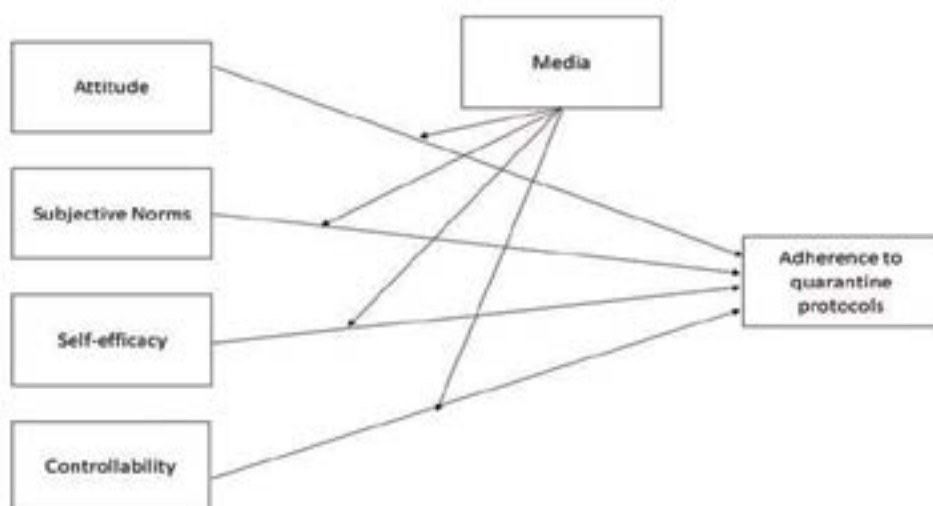


Figure 2:

Conceptual Framework (Adapted from Ajzen's Theory of Planned Behavior, 1985)

To analyze the collected data, SMART/PLS was used. Tests were carried out to ensure accuracy, consistency, and reliability. For the comparative analysis, the perceptions of the respondents belonging to Generations X and Y were combined. This represented the old generation. This combined data was compared with the perceptions of Generation Z. Generation Z represented the young generation.

Results

Evaluation of Structural Model

Reliability and Validity of Research Constructs

The research constructs were tested for internal consistency and reliability. Cronbach's alpha was used as a measure of internal consistency and scale reliability (Bruin, 2006; Yalung et al., 2020). The alpha coefficient for the four variables is above 0.80, which indicates that items have relatively high internal consistency. According to Nunally (1978), the cut-off score for composite reliability is generally considered 0.70. For convergent validity, the average variance extracted (AVE) score was used as a metric. An AVE score of more than 0.5 reflects good convergent validity (Bruin, 2006; Roman et al., 2020).

Evaluation of the Measurement Model

The Fornell-Larcker criterion was utilized to test constructs' discriminant validity, which compares the square root of the AVE values with the latent variable correlations. AVE measures the level of variance captured by a construct in relation to the amount of variance due to measurement error. Values above 0.7 are considered very good, whereas the level of 0.5 is still acceptable (Bruin, 2006). All the variables used in the study are statistically different from one another.

Table 3 shows the results of bootstrapping analysis using SMART-PLS. According to Rumsey (2009), if the p-value is less than 0.01, the results are considered highly significant, and if the p-value is greater than 0.05, the results are considered non-significant. Table 3 also summarizes the direct paths. The significant paths are attitude to adherence to quarantine protocols and controllability to adherence to quarantine protocols. The results showed that for old generations (X and Y), attitude is a consistent predictor of adherence to the quarantine protocols. This supports existing studies that showed that attitude can predict intention or actual behavior (Chan et al., 2020; Curseu et al., 2021; Prasetyo et al., 2020). Controllability positively affects adherence. This supports existing studies that show that mass media plays an important role in enabling people

Table 1. Cronbach Alpha, Composite Reliability, and Average Variance Extracted for the Constructs

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Adherence	0.947	0.949	0.960	0.826
Attitude	0.947	0.952	0.962	0.864
Controllability	0.960	0.960	0.968	0.833
Media	0.739	0.760	0.831	0.553
Self- Efficacy	0.946	0.954	0.961	0.861
Subjective Norms	0.968	0.969	0.977	0.913

Table 2. Discriminant Validity Using Fornell-Larcker Criterion

	Adherence	Attitude	Controllability	Media	Self-Efficacy	Subjective Norms
Adherence	0.909	0.000	0.000	0.000	0.000	0.000
Attitude	0.764	0.930	0.000	0.000	0.000	0.000
Controllability	0.858	0.718	0.913	0.000	0.000	0.000
Media	0.581	0.580	0.528	0.744	0.000	0.000
Self-Efficacy	0.739	0.725	0.777	0.534	0.928	0.000
Subjective Norms	0.698	0.732	0.686	0.524	0.738	0.955

Table 3. Hypothesis Test Results, Old Generations X and Y

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Attitude → Adherence	0.293	0.318	0.114	2.577	0.010
Attitude X Media → Adherence	0.089	0.108	0.095	0.933	0.351
Controllability → Adherence	0.437	0.446	0.093	4.678	0.000
Controllability X Media → Adherence	-0.007	-0.026	0.104	0.072	0.943
Media → Adherence	0.082	0.098	0.062	1.327	0.185
Self-Efficacy → Adherence	0.018	0.020	0.100	0.176	0.860
Self-Efficacy X Media → Adherence	-0.233	-0.211	0.102	2.285	0.022
Subjective Norms → Adherence	0.101	0.060	0.138	0.735	0.462
Subjective Norms X Media → Adherence	0.054	0.023	0.141	0.383	0.701

Table 4. Hypothesis Test Results, Young Generation Z

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Attention → Adherence	0.102	0.115	0.111	0.925	0.355
AttentionXMedia → Adherence	-0.020	-0.010	0.106	0.191	0.848
Controllability → Adherence	0.606	0.595	0.107	5.644	0.000
Controllability X Media → Adherence	-0.157	-0.141	0.109	1.439	0.150
Media → Adherence	0.083	0.084	0.059	1.416	0.157
Self-Efficacy → Adherence	0.061	0.077	0.078	0.788	0.431
Self-efficacy X Media → Adherence	0.101	0.082	0.114	0.889	0.374
Subjective Norms → Adherence	0.040	0.022	0.102	0.395	0.693
Subjective Norms XMedia → Adherence	0.029	0.017	0.112	0.263	0.793

to adhere to quarantine protocol (Anwar et al., 2020; Webster et al., 2020).

Table 4 shows that for Generation Z, only controllability positively affects adherence to quarantine protocols. This implies that the younger generation is agile enough to understand what needs to be done to prevent the spread of COVID-19. Adherence to quarantine protocols is a logical choice to minimize personal worries and preserve one’s health.

Comparing the two generations in terms of old (X and Y) and young (Z), the results suggest that attitude and controllability positively affect adherence to the quarantine protocol. Generations X and Y’s confidence or self-efficacy to adhere to quarantine protocols is influenced by media, whether traditional or new media. The results suggest that the younger generation, or Generation Z, is more adept at signifying that self-control positively affects adherence to quarantine protocols.

Figure 3 shows the moderating effect of social media using indirect paths. Table 5 shows that media moderates the relationship between attitude and adherence to quarantine protocols and controllability and adherence to quarantine protocols. This suggests that residents followed the quarantine protocols with a positive attitude. They recognized the dangers of violating the protocols that could lead to contracting COVID-19. COVID-19 and its consequences have led to fears, worries, and anxiety among individuals worldwide (Ahorsu et al., 2020).

Table 5 shows that there is no significant difference among generations, specifically the young (Generation Z) and older generations (X and Y), except for media moderating the relationship between self-efficacy and adherence. This suggests that media can boost the confidence in complying with health and safety protocols. Adherence is a necessity to stay alive (Suplico Jeong, 2021).

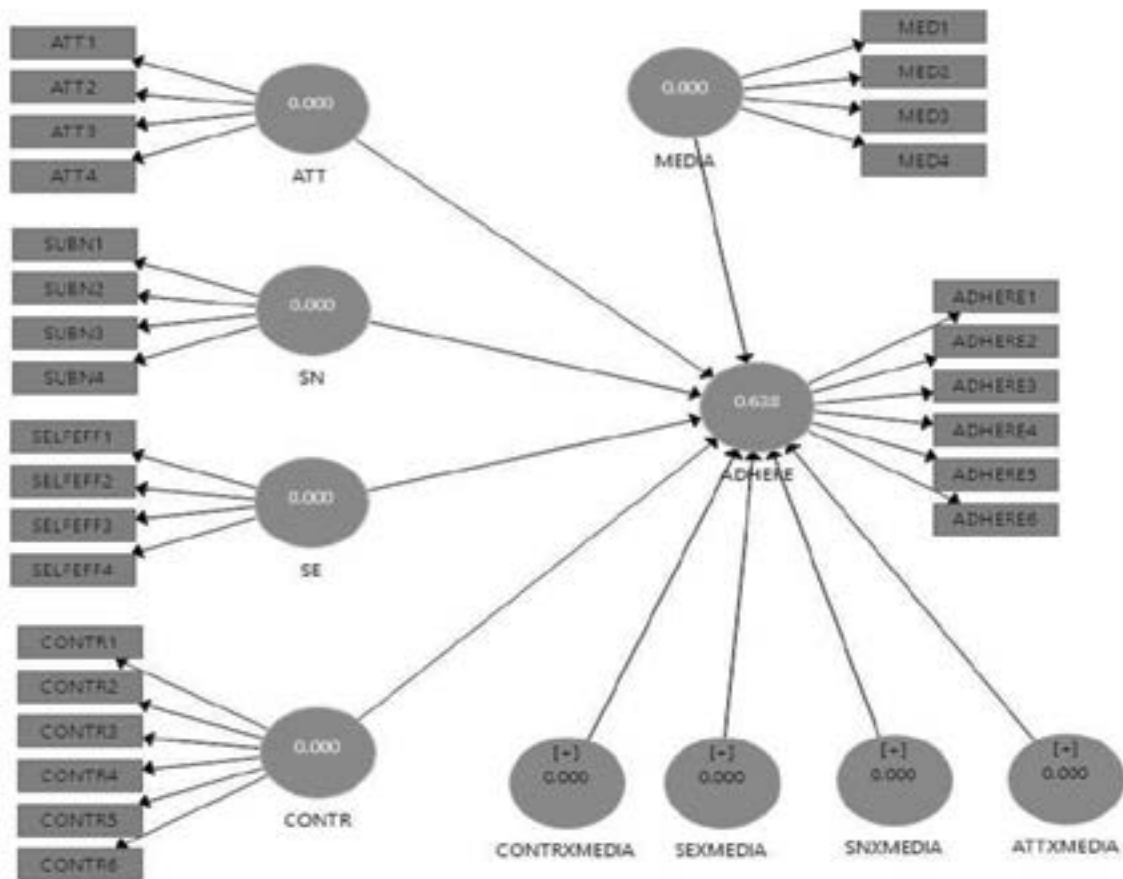


Figure 3:

The Moderating Effect of Media and Path Coefficients

Table 5. *Multigroup Analysis*

	Path Coefficients- diff (Young - Old)	p-Value original 1-tailed (Young vs Old)	p-Value new (Young vs Old)
Attitude → Adherence	-0.190	0.889	0.223
Attitude X MEDIA → Adherence	-0.109	0.784	0.431
Controllability → Adherence	0.170	0.116	0.233
Controllability X Media → Adherence	-0.150	0.842	0.316
Media → Adherence	0.001	0.484	0.969
Self-Efficacy → Adherence	0.044	0.363	0.726
Self-Efficacy X Media → Adherence	0.334	0.015	0.031
Subjective Norms → Adherence	-0.061	0.653	0.693
Subjective Norms X Media → Adherence	-0.025	0.565	0.871

Discussion

Attitude was significant to adherence to COVID-19 protocol among Generations X and Y. However, attitude was not significant to adherence to COVID-19 protocol for Generation Z. This is in contrast to the previous study that showed that attitude can predict actual behavior (Chan et al., 2020; Curseu et al., 2021; Prasetyo et al., 2020). The combined data for Generations X, Y, and Z showed that self-efficacy through media was significant to adherence to COVID-19 protocol. This suggests that health communication to Generations X, Y, and Z should be designed to give a person more confidence in compliance regardless of generation.

There was no significant relationship between subjective norms and adherence to quarantine protocols among Generations X, Y, and Z. This implies that the need to adhere to quarantine protocols does not come from families, friends, peers, and colleagues but from the intrinsic motivation to stay alive (Suplico-Jeong et al., 2021). This does not support existing literature that shows that subjective norms were significant to actual behavior (Chan et al., 2020; Kim et al., 2020; Pertl et al., 2020; Prasetyo et al., 2020; Webster et al., 2020).

The results show that there was a significant relationship between controllability and adherence to quarantine protocols among Generations X, Y, and Z. This suggests that respondents perceived that it was within their control to adhere to COVID-19 protocols.

The relationship between self-efficacy and adherence to COVID-19 protocols was insignificant among all generations. However, the multigroup analysis showed that media moderated the relationship between self-efficacy and adherence to COVID-19 protocols. This implies that media, through the use of clear and detailed health communication, can influence adherence to COVID-19 protocol (Webster et al., 2020).

Using the combined data from Generations X, Y, and Z, the relationship between media and adherence to quarantine protocol was significant. This implies that health communication through media can influence adherence to quarantine protocols for all respondents from Generations X, Y, and Z.

Conclusion

Do generations matter? Based on the study's results, there is no significant difference in the responses of respondents from Generations X, Y, and Z. This suggests that a standardized health communication that aims to elicit favorable attitudes towards COVID-19 protocol adherence can be designed. This also implies that despite the age differences and the generation stereotypes, all respondents were motivated to adhere to COVID-19 quarantine protocols to stay alive regardless of the media platform (Suplico-Jeong et al., 2021).

Study's Limitations and Recommendations for Future Research

This study combined the responses of Generations X and Y and compared the combined data with the responses of Generation Z due to data limitations from Generations X and Y. Future studies may include the impact of COVID-19 and the emerging trends brought by the pandemic on Generations X, Y, and Z after the mass vaccination.

Due to the strict implementation of the enhanced community quarantine during the data collection, a focus group discussion was not organized. Future studies should include a focus group discussion, which should probe deeper into the responses of Generations X, Y, and Z towards adherence to COVID-19 protocol.

The respondents surveyed were limited to residents of Metro Manila, Philippines. Future studies can be in other areas to yield new insights.

References

- Ahorsu, D.K.; Lin, C.; Imani, V.; Saffari, M.; Griffiths, M.; Pakpour, A. (2020), "The fear of COVID-19 scale: development and initial validation", *International Journal of Mental Health and Addiction*. <https://doi.org/10.1007/s11469-020-00270-8>
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In A. Editor & B. Editor (Eds.), *Action-control: From cognition to behavior* (pp. 11–39). Springer.
- Andrade, J., Yee, J., & Corrales, N. (2020, September 9). No more home quarantine for COVID-19 patients. *Philippine Daily Inquirer*. <https://newsinfo.inquirer.net/1333026/no-more-home-quarantine-for-covid-19-patients>
- Anwar, A., Malik, M., Raees, V., & Anwar, A. (2020). Role of mass media and public health communications in the COVID-19 pandemic. *Cureus*, *12*(9), Article No. e10453. <https://doi.org/10.7759/cureus.10453>
- Bautista, R. (2019). Green behavior and generation: A multigroup analysis using structural equation modeling. *Asia Pacific Social Science Review*, *19*(1), 1–16.
- Bruin, J. (2006). *Newtest: Command to compute new test*. Statistical Consulting Group. <https://stats.idre.ucla.edu/stata/ado/analysis/>
- Burke, S. (2020). Stronger together? Intergenerational connection and Covid-19. *Quality in Ageing and Older Adults*, *21*(4), 253–259. <https://doi.org/10.1108/QAOA-07-2020-0033>
- Callow, M., Callow, D., & Smith, C. (2020). Older adults' intention to socially isolate once COVID-19 stay-at-home orders are replaced with "safer-at-home" public health advisories: A survey of respondents in Maryland. *Journal of Applied Gerontology*, *39*(11), 1175–1183. DOI: 10.1177/0733464820944704
- Chan, D., Zhang, C., & Weman-Josefsson, K. (2020). Why people failed to adhere to COVID-19 preventive behaviors? Perspectives from an integrated behavior change model. *Infection Control & Hospital Epidemiology*, *42*(3), 375–376. <https://doi.org/10.1017/ice.2020.245>
- Cruz, C. J. P., Ganly, R., Li, Z., & Gietel-Basten, S. (2020). Exploring the young demographic profile of COVID-19 cases in Hong Kong: Evidence from migration and travel history data. *PLoS ONE*, *15*(6), e0235306. <https://doi.org/10.1371/journal.pone.0235306>
- Cruz, G. T., Cruz, C. J. P., & Saito, Y. (Eds.). (2019). *Ageing and health in the Philippines*. Economic Research Institute for ASEAN and East Asia (ERIA).
- Curşeu, P. L., Coman, A. D., Fodor, O. C., Raţiu, L., & Panchenko, A. (2021). Let's not joke about it too much! Exposure to COVID-19 messaging, attitudes and protective behavioral intentions. *Healthcare*, *9*(2), 1–20. <https://doi.org/10.3390/healthcare9020122>
- Department of Health. (2021). *COVID-19 health advisories*. Retrieved February 7, 2021 from <https://doh.gov.ph/covid-19/infographics/health-advisories>
- Garcia, L. L., Castillo, J. M., Bejoc, J., Redula, E. H., Lapa, M. M. I., & Palompon, D. (2020). Understanding COVID-19 dispersion in the Filipino sociocultural context. *Asia-Pacific Journal of Health Management*, *15*(3), 13–18. <https://doi.org/10.24083/apjhm.v15i3.467>
- Gharzai, L., Beeler, W., & Jagsi, R. (2020). Playing into stereotypes: Engaging millennials and Generation Z in the COVID-19 pandemic response. *Advances in Radiation Oncology*, *5*(4), 679–681. <https://doi.org/10.1016/j.adro.2020.04.009>
- Godbersen, H., Hofmann, L. A., & Ruiz-Fernández, S. (2020). How people evaluate anti-Corona measures for their social spheres: Attitude, subjective norm, and perceived behavioral control. *Frontiers in Psychology*, *11*, 1–20. <https://doi.org/10.3389/fpsyg.2020.567405>
- Jayathilake, H. D., Daud, D., Eaw, H. C., & Annuar, N. (2021). Employee development and retention of Generation-Z employees in the post-COVID-19 workplace: A conceptual framework. *Benchmarking: An International Journal*. Advance online publication. <https://doi.org/10.1108/BIJ-06-2020-0311>
- Kim, H. K., & Tandoc, E. C., Jr. (2021). Wear or not to wear a mask? Recommendation inconsistency, government trust and the adoption of protection behaviors in cross-lagged TPB models. *Health Communication*, *37*(7), 833–841. <https://doi.org/10.1080/10410236.2020.1871170>
- Kim, Y.-J., Cho, J.-H., & Kang, S.-W. (2020). Study on the relationship between leisure activity participation

- and wearing a mask among Koreans during COVID-19 crisis: Using TPB model. *International Journal on Environmental Research and Public Health*, 17(20), Article No. 7674. <https://doi.org/10.3390/ijerph17207674>
- Nunnally, J.C. (1978). An Overview of Psychological Measurement. In: Wolman, B.B. (eds) *Clinical Diagnosis of Mental Disorders*. Springer, Boston, MA. https://doi.org/10.1007/978-1-4684-2490-4_4
- Pertl, M., Hevey, D., Thomas, K., Craig, A., Chuinneaga, S. N., & Maher, L. (2010). Differential effects of self-efficacy and perceived control on intention to perform skin cancer-related health behaviours. *Health Education Research*, 25(5), 769–779. <https://doi.org/10.1093/her/cyq031>
- Plaisime, M., Robertson-James, C., Mejia, L., Núñez, A., Wolf, J., & Reels, S. (2020). Social media and teens: A needs assessment exploring the potential role of social media in promoting health. *Social Media and Society*, 6(1). <https://doi.org/10.1177%2F2056305119886025>
- Prasetyo, Y. T., Castillo, A. M., Salonga, L. J., Sia, J. A., & Seneta, J. A. (2020). Factors affecting perceived effectiveness of COVID-19 prevention measures among Filipinos during enhanced community quarantine in Luzon, Philippines: Integrating protection motivation theory and extended theory of planned behavior. *International Journal of Infectious Diseases*, 99, 312–323. <https://doi.org/10.1016/j.ijid.2020.07.074>
- Roman, R. G., Trobada, C. S. P., Gaton, F. P., Gania, C. K., Oluyinka, S. A., Cuenco, H. O., & Daenos, R. G (2020). A study on the utilization of e-resources among college students. *International Journal of Knowledge Engineering*, 6(1), 24–29. <https://doi.org/10.18178/ijke.2020.6.1.127>
- Roy, A. (2020). *A for adoption: An exploration of the adoption experience for families and professionals*. Routledge/Taylor & Francis Group.
- Rumsey, D. J. (2009). *Statistics II for Dummies*. Wiley Publishing, Inc.
- Salva, E., Villarama, J. B., Lopez, E., Sayo, A. R., Villanueva, A. M., Edwards, T., Han, S. M., Suzuki, S., Seposo, X., Ariyoshi, K., & Smith, C. (2020). Epidemiological and clinical characteristics of patients with suspected COVID-19 admitted in Metro Manila, Philippines. *Tropical Medicine and Health*, 48(51), 1–8. <https://doi.org/10.1186/s41182-020-00241-8>
- Santesmasses, D.; Castro, J.P.; Zenin, A.; Shindyapina, A.; Gerashchenko, M.; Zhang, B.; Kerepesi, C.; Yim, S.H.; Fedichev, P. & Gladyshev (2020). Covid 19 is an emergent disease of aging. *Aging Cell* 10. <https://doi.org/10.1111/accel.13230>. Epub 2020 Oct 1. PMID: 33006233; PMCID: PMC7576244.
- Sumioka, H., Nakae, A., Kanai, R., & Ishiguro, H. (2013). Huggable communication medium decreases cortisol levels. *Scientific Report*, 3, Article No. 3034. <https://doi.org/10.1038/srep03034>
- Suplico-Jeong, L., Bautista, R. A., Jr., Guillen, N. B., Jr., & Murad, N. S. (2021). Adherence to quarantine protocols to prevent the spread of COVID-19: The mediating effect of intrinsic and extrinsic motivations. *Asian Education and Development Studies*, 1(2). <https://doi.org/10.1108/AEDS-05-2020-0122>
- University of the Philippines Population Institute and Demographic Research and Development Foundation, Inc. (2020, March). *COVID-19 and the older Filipino population: How many are at risk?* (UPPI/DRDF Research Brief No. 1). <https://www.uppi.upd.edu.ph/sites/default/files/pdf/COVID-19-Research-Brief-01.pdf>
- Urlick, M. (2020). Generational differences and COVID-19: Positive interactions in virtual workplaces. *Journal of Intergenerational Relationships*, 18(4), 379–398 <https://doi.org/10.1080/15350770.2020.1818662>
- Webster, R. K., Brooks, S. K., Smith, L. E., Woodland, L., Wessely, S., & Rubin, G. J. (2020). How to improve adherence with quarantine: Rapid review of the evidence. *Public Health*, 182, 163–169. <https://doi.org/10.1016/j.puhe.2020.03.007>
- Yalung, H. A., Tuliao, D. L., Gabriel, P. R. M., Oluyinka, S. A., & Gil, M. (2020). Use of social media platforms in promoting the academic library services of City College of Angeles among students. *International Journal of Information and Education Technology*, 10(6), 482–487. <https://doi.org/10.18178/ijiet.2020.10.6.1411>
- Zemke, R., Raines, C., & Filipeczak, B. (2000). *Generations at work: Managing the clash of veterans, boomers, Xers, and Nexters in your workplace*. AMACOM American Management Association.
- Zhao, E., Wu, Q., Crimmins, E. M., & Ailshire, J. A. (2020). Media trust and infection mitigating behaviours during the COVID-19 pandemic in the USA. *BMJ Global Health*, 5(10), Article e003323. <https://doi.org/10.1136/bmjgh-2020-003323>