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# Preventing the COVID-19 Outbreak in Vietnam: Social Media Campaign Exposure and the Role of Interpersonal Communication

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**Preventing the COVID-19 Outbreak in Vietnam:  
Social Media Campaign Exposure and the Role of Interpersonal Communication**

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**Preventing the COVID-19 Outbreak in Vietnam:  
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Abstract

The present study focused on the success story of Vietnam's ability to control the COVID-19 outbreak in the early stages to examine the associations between exposure to the Vietnam Ministry of Health's COVID-19 prevention social media campaign messages, interpersonal communication, attitudes, perceived norms, self-efficacy, and intentions to stay at home. A cross-sectional survey was conducted with residents in Ho Chi Minh City ( $N = 360$ ). Results from mediation analyses indicated that interpersonal communication mediated the effect of social media campaign exposure on intentions to stay at home. Moreover, interpersonal communication shaped injunctive norms and self-efficacy that were conducive to behavioral intentions. These results underscored the need to leverage the power of social media and interpersonal communication in public health campaigns to prevent infectious outbreaks.

## **Preventing the COVID-19 Outbreak in Vietnam:**

### **Social Media Campaign Exposure and the Role of Interpersonal Communication**

The link between public health media campaigns and interpersonal communication has been well-documented in the literature (Noar et al., 2009; Southwell & Yzer, 2007). Campaign messages stimulate conversations and social interactions among target community members to make sense of the associated risks and related health behaviors (Rogers & Storey, 1987; Southwell & Yzer, 2007). The Integrative Model of Behavioral Prediction posits that interpersonal communication serves as a distal variable influencing behavioral intentions through attitudes, perceived norms, and self-efficacy (Fishbein, 2009). While several studies have investigated interpersonal communication as a mediator of mass media health information effects (e.g., Smith et al., 2018; van den Putte et al., 201), little research has investigated how interpersonal communication is associated with social media campaign message exposure and behavioral intentions in an infectious outbreak. Given the increasing use of social media to prevent infectious diseases (Tsao et al., 2021), examining the role of interpersonal communication in this context provides more understanding of the interplay of social media campaign exposure and interpersonal communication along with its effect on COVID-19 preventive behaviors.

The current study aims to examine how social-media-generated interpersonal communication influences attitudes, perceived norms, self-efficacy, and intentions to stay at home during the early stages of the COVID-19 outbreak. Staying at home and avoiding gathering in crowded places are essential components of the physical distancing measure to curb the progressive of this outbreak. This study focuses on the success story of Vietnam's ability to control the COVID-19 outbreak in the early stages, despite its geographical border with China - a

country affected early by the outbreak. We seek to provide one possible explanation regarding how the social media campaign launched by the Vietnam Ministry of Health (MoH) in early 2020 might have motivated behavioral changes, and ultimately contributed to this success.

### **Media Exposure and Interpersonal Communication**

Research related to media campaigns consistently found that exposure to campaign messages generates interpersonal communication about a topic (e.g., Boulay et al., 2002; Valente & Saba, 2001). In health threatening situations, people are motivated to talk to others to seek information, reduce uncertainty, and learn about preventive measures (Southwell & Yzer, 2009). Conversations among individuals might not only be a mechanism for information repetition and diffusion of media messages, but also a relational and socially consequential behavior that occurs in diverse contexts (Southwell & Yzer, 2007). Scholars note that in the age of the Internet and social media, interpersonal communication takes place not only within a face-to-face context but also via mediated social interactions such as social media platforms (Duffy & Thorson, 2009; Hendriks et al., 2016; Southwell & Yzer, 2009). Thus, people likely find ways to start and maintain their conversations even during an infectious outbreak when social distancing is required. In this study, we conceptualize interpersonal communication as individuals' conversations through both face-to-face and mediated platforms.

The early phase of the COVID-19 outbreak is characterized by high levels of uncertainty and fear because little is known about the novel coronavirus and vaccines are not yet available. Uncertainty and fear likely trigger interpersonal communication to seek reassurance and fill in information gaps about the outbreak. Indeed, previous research has found that when a large-scale disease occurs, individuals feel greater fear and estimate higher risk, which motivates them to talk about the health risk (Paek et al., 2016). Research also found that when facing a health risk,

people tend to share with others about the risk through both face-to-face and social media (Duong et al., 2020). Thus, we hypothesize:

*H1*: Exposure to the MoH's COVID-19 prevention campaign messages via social media will be positively associated with interpersonal communication about staying at home.

### **The Integrative Model of Behavioral Prediction**

The Integrative Model of Behavioral Prediction (IM) provides a theoretical framework to predict behavior using a few psychological variables (Fishbein, 2009). The IM framework posits that behavior is best predicted by behavioral intentions, which are predetermined by individuals' attitudes, perceptions of social norms, and self-efficacy. Attitudes are beliefs about performing a behavior that will lead to favorable or unfavorable outcomes. Social norms pertain to perceptions of a behavior being normative in that it is typical and socially approved in a social context (i.e., perceived norms). More specifically, perceived norms are conceptualized as injunctive norms (i.e., perceptions of a behavior being approved by influential others) and descriptive norms (i.e., perceptions of a behavior being conducted by others) (Cialdini et al., 1990). Self-efficacy refers to individuals' beliefs in their ability to perform a behavior. More favorable attitudes, higher perceived norms, and higher self-efficacy predict a higher likelihood that people will implement a target behavior (Fishbein & Ajzen, 2011). Theorists suggest that depending on behavioral and cultural contexts, one or more of these psychological variables might be more influential than others to enable behavioral change (Fishbein & Ajzen, 2011).

Furthermore, the IM theorizes that attitudes, injunctive norms, descriptive norms, and self-efficacy are influenced by an array of background variables, such as demographics, personality, and intervention exposure. The latter is particularly relevant to the context of the current study because intervention exposure includes both exposure to health campaign media

messages and subsequent interpersonal communication that diffuses campaign messages. While some studies found the direct effect of mass media messages on attitudes, perceived norms, and efficacy (e.g., Bekalu & Eggermont, 2015; Bleakley et al., 2011), scholars propose that interpersonal communication may serve as a crucial mediating mechanism linking health media exposure and attitudes, perceived norms, and self-efficacy (Hornik & Yanovitzky, 2003; Southwell & Yzer, 2007). Indeed, quantitative studies in several countries provided ample support for this social diffusion process across various health behavioral contexts, including family planning in Nepal (Boulay et al., 2002) and Peru (Valente, 1996), contraceptive use in Bolivia (Valente & Saba, 2001), adoption of novel mosquito control materials in West Africa (Smith et al., 2018), quitting smoking in the Netherlands (van den Putte et al., 2011), and preventive behaviors against the Middle East Respiratory Syndrome outbreak (Ludolph et al., 2018). Moreover, qualitative research showed that people often view media campaign messages in the company of significant others and then discuss the messages (Helme et al., 2011). Such discussions may amplify campaign messages, helping to mold attitudes, perceived norms, and self-efficacy that are conducive to behavioral change (Cline, 2003; Hornik, 2002). Thus, we expected that individuals' conversations with family, friends, colleagues, and neighbors shape their attitudes, perceived norms, and self-efficacy related to staying at home behavior.

*H2: Interpersonal communication will be positively associated with attitudes (H2a), injunctive norms (H2b), descriptive norms (H2c), and self-efficacy (H2d).*

Following the IM theorization, we anticipated that intentions to stay at home would be predicted by attitudes, injunctive norms, descriptive norms, and self-efficacy. Because these factors might vary across behavioral and cultural contexts (Fishbein & Ajzen, 2011), determining which of these factors were influential to behavioral change likely provides insights for

practitioners. For example, if perceived norms are more influential than attitudes and efficacy, normative messages to shape normative perceptions might be effective to motivate people to comply with the guidance of public health agencies. Alternatively, if attitudes were most influential, campaign messages might focus more on changing people's perceptions of preventive measures' beneficial outcomes. Thus, understanding which factors are most influential to staying at home behavior is critical for COVID-19 prevention campaigns.

*H3: Attitudes (H3a), injunctive norms (H3b), descriptive norms (H3c), and self-efficacy (H3d) will be positively associated with intentions to stay at home.*

Based on the IM mediation pathways, exposure to social media messages should influence behavioral intentions through attitudes, perceived norms, and self-efficacy. However, as discussed above, health campaigns messages might motivate interpersonal communication about the risk and preventive behaviors, which then shape attitudes, perceived norms, and self-efficacy (Hornik & Yanovitzky, 2003; Rogers & Storey, 1987). Thus, we hypothesize:

*H4: The effect of social media exposure on intentions to stay at home will be mediated by interpersonal communication and attitudes (H4a), interpersonal communication and injunctive norms (H4b), interpersonal communication and descriptive norms (H4c), and interpersonal communication and self-efficacy (H4d).*

Finally, the IM's sufficiency principle suggests that attitudes, perceived norms, and self-efficacy should fully mediate the association between influential background variables and behavioral intentions (Fishbein & Ajzen, 2011). However, researchers found that interpersonal communication might directly motivate behavioral intentions (Seo & Matsaganis, 2013). To account for this possibility, we asked:



RQ1: Does interpersonal communication mediate the effect of the MoH's social media message exposure on intentions to stay at home, controlling for attitudes, injunctive norms, descriptive norms, and self-efficacy?

Figure 1 illustrates the conceptual model.

[Figure 1 here]

### **The Social Media Campaign to Prevent the COVID-19 Outbreak in Vietnam**

The first case of the novel coronavirus in Vietnam was declared on January 23, 2020. One month after this first case, 16 other cases were reported. The country had no further infection cases until March 6, when a young woman returning from Italy tested positive with COVID-19. The Vietnamese government acted early and drastically to nip the outbreak in the bud. Based on its experiences with the SARS outbreak in 2003, the government issued a comprehensive plan of action, which included targeted temperature screening and testing, contact tracing and quarantine, local and national lockdowns when judged necessary, improving capacities of the healthcare system, and extensive communication to advise people to stay at home, restrict their traveling, wear face masks, and wash their hands with soap (Tran et al., 2020). Both central government and provincial agencies implemented the first three measures. The fourth measure was spearheaded by the MoH, focusing on providing messages to inform the public of the outbreak and motivate people to comply with preventive messages. Simultaneously, the government issued a decree allowing authorities to fine people who used social media to share false and slanderous information related to the outbreak. The state-owned news media outlets strategically reported the arrests of a few Facebook users who disseminated false COVID-19 information to deter attempts to disseminate unofficial information sources. These

measures worked well to keep the outbreak at bay. At the end of April 2020, Vietnam claimed 268 cases, with 140 people making a full recovery and no deaths (Tran et al., 2020).

Vietnam is one of the most thriving digital markets in Asia, with over 72 million users among its nearly 97 million population (Ministry of Information and Communication, 2021). The average amount of time per day Vietnamese spend on social media is approximately 3.18 hours. Facebook and YouTube are popular apps, while Instagram and Twitter are picking up the trend with increasingly young users. Another popular social media platform is Zalo - a Vietnamese homegrown messaging app. It was launched in 2012 and quickly gained a foothold in the local market. Approximately 80 percent of smartphone users in Vietnam have Zalo installed on their phones. The government views social media as an important communication tool to disseminate its public health information. In early 2020, the MoH declared four simultaneous measures to prevent COVID-19: 1) continuously informing people of the outbreak's development and government public health policies through the state-owned mass media, 2) providing prevention messages on social media such as Facebook and YouTube, 3) sending prevention messages directly to individuals through Zalo, and 4) working with the Ministry of Information and Communication, Facebook, and Google to restrict fake news and rumors related to the outbreak and launching an official website to provide information to counter fake news along with hotlines for people to speak directly with the MoH experts (Tran et al., 2020).

In January 2020, the MoH the MoH launched a social media campaign to raise people's awareness of the COVID-19 risk, provide instructions on how to file medical reports through the Bluezone app (a mobile app created by the MoH to inform people of any close contacts with people who is infected with COVID-19), and motivate them to comply with preventive measures (Tran et al., 2020). Recognizing the widespread social media usage in Vietnam, the MoH's

campaign strategically used these platforms. The MoH began the campaign by sending messages through Zalo to inform people of the government's decisions regarding target lockdown and preventive measures. These messages included standard top-down directions to inform people of government policies, along with infographics guiding people on efficacious measures to prevent infection. The MoH reported over 3.5 billion messages and over 100 infographics were sent through Zalo app from January to July 2020 (Yen, 2020).

The MoH also shared creative messages to further engage people in the campaign and motivate them to diffuse the message in their networks (MoH, 2020). In February 2020, for instance, the MoH released the song “Ghen Co Vy” (Jealous Coronavirus) - a pop song that persuaded people to frequently and properly wash their hands with soap. The song quickly turned into a dance challenge on social media and became popular in several countries after it was mentioned and played in the American late-night show “*Last Week Tonight with John Oliver*.” The campaign led to thousands of Facebook users in the country posting and reposting cover versions of popular songs with modified lyrics to persuade people to stay at home, wear face masks, and wash hands with soap. Within a few days, many people changed their Facebook avatars with a picture of themselves and a slogan that read: “I am [name of Facebook user] and I stay at home,” along with the hashtag #stayhome. Thus, the MoH’s social media campaign engaged social media users to individualize preventive messages, which showed a synchronized effort of both the MoH and individuals to contain the outbreak.

The current study focused on staying at home behavior as part of the core measures to prevent the COVID-19 outbreak in Vietnam. This study collected data one week before social distancing was officially mandated in Vietnam, from April 1-15, 2020. As such, the MoH’s social media campaign served as a crucial step to get people ready for a nationwide social

distancing order. Compliance with public health experts' advice to stay at home was a difficult behavior for Vietnamese due to their collectivistic culture and active social lives (Jamieson, 1995). Thus, successfully encouraging a large number of people to willingly stay at home was unprecedented in the country's public health history.

## **Method**

### **Participants and Procedure**

The current study was conducted in Ho Chi Minh City, the largest city in Vietnam with over 10 million people. It is also a densely populated economic hub with high population mobility. The city was identified as one potentially high-risk zone in the country. To recruit participants, we drew a sampling frame from a business directory published by the city Young Business Association. From this sampling frame, we selected 30 local companies located in 19 out of 24 districts of the city. We contacted the representatives of these companies through the contact information provided in the directory and asked the representatives whether they would be willing to distribute an anonymous survey about the COVID-19 to their employees. Of these 30 companies, 17 agreed to participate in the study. We sent the Qualtrics survey link to the representatives, who subsequently forwarded it to their employees. The study was conducted in the final week of March 2020 and was approved by a university ethics review board.

Participants had 5 days to fill out the survey. Participants read the informed consent and voluntarily participated in the survey. Before participants answered screening items (e.g., participants were at and above 18 years old, current users of social media, and had recently viewed the MoH's messages), they read an informed consent, which specifically explained that this study focused on their experience of viewing messages about COVID-19 prevention sent by the MoH. The MoH's COVID-19 prevention campaign has been the only one in the country.

This study was conducted at a time when the COVID-19 outbreak was looming large in Vietnam and thus, the MoH's campaign increased its coverage and intensity (i.e., more messages were sent to more people via social media at higher frequency). A total of 642 responses were recorded. However, only 360 were complete because other respondents left too many questions unanswered or abandoned the survey after filling out a few items. Participants' age ranged from 18 to 50 ( $M = 24.6$ ;  $SD = 5.18$ ). There were more females (59.4%) than males (40.6%) and more single (75.6%) than married participants (24.4%). The majority had a college degree (71.9%), followed by some college (16.1%), graduate degree (8.6%), and high school (3.3%).

### **Measures**

The questionnaire was first drafted in English. It was then translated into Vietnamese and reviewed by a panel of local experts. Then, it was pilot tested with a small sample of students from a university in Ho Chi Minh City ( $n = 60$ , not included in the analysis) to ensure question clarity and survey functionality. The revised questionnaire was used in the main survey. Measurement items were averaged to create scales. Table 1 showed descriptive statistics, Pearson's correlations, and Cronbach's alphas of the key variables.

***Social Media Campaign Exposure.*** The social media campaign exposure measure was adapted from prior research (Yoo, 2019) with 5 items asking participants to recall the frequency of their exposure to the MoH's COVID-19 prevention messages from these social media since early 2020: Facebook, YouTube, Zalo, Instagram, and Twitter (1-*never*; 5-*very often*).

***Campaign-stimulated Interpersonal Communication.*** Four items modified from previous research (Chatterjee et al., 2009) were used to examine interpersonal communication. Specifically, participants reported how many family members they talked with through face-to-face conversations, phone calls, or Zalo and Facebook calls about the MoH's COVID-19

prevention messages since the outbreak began (1-*no one*; 5- *almost all*). The same stem was used repeatedly but with changes in conversation partners (i.e., friends, neighbors, and coworkers). Because Zalo and Facebook are popularly used for conversations while Instagram and Twitter are rarely used for this purpose in Vietnam, we focused on Zalo and Facebook calls.

**Attitudes.** Measures for attitudes were adapted from Fishbein and Ajzen (2011) with five 7-point semantic differential items completing the stem: “During the outbreak, staying at home for me is...”. The adjectives completing the scale were bad-good, unhealthy-healthy, unwise-wise, difficult-easy, and negative-positive (items ranged from -3 to 3).

**Injunctive Norms.** Three items were adapted and used to assess injunctive norms (Fishbein & Ajzen, 2011). Participants were asked to indicate the degree to which they perceived that people who were influential to them (i.e., respected others, influential others, and people in their neighborhood) would expect them to stay at home during the outbreak (1-*strongly disagree*; 5-*strongly agree*).

**Descriptive Norms.** Participants were asked to estimate the number of people in Vietnam, in their neighborhood, and people in the social networks who would stay at home during the outbreak (1-*no one*; 5- *almost all*).

**Self-efficacy.** Three items were used to assess participants’ beliefs in their ability to stay at home (“Staying at home is entirely up to me”; “I believe I can stay at home no matter how much I want to go out”; and “I can easily refuse invitations to go out of my home”; 1-*strongly disagree*; 5-*strongly agree*).

**Behavioral intentions.** Participants’ intentions to stay at home were assessed with three items (“If the COVID-19 outbreak surges in Vietnam, I will stay at home as long as it is needed”; “If the COVID-19 outbreak surges in Vietnam, I intend to stay at home until the

outbreak is over”; and “If the COVID-19 outbreak surges in Vietnam, I will avoid all social activities to stay at home”; 1-*strongly disagree*; 5-*strongly agree*).

**Demographics.** Age, gender, marital status, and levels of education were measured.

### **Data Analysis**

Preliminary analyses including descriptive data examination, outliers, missing data, and non-normality check were conducted. Bootstrapping analysis with the PROCESS macro for SPSS was conducted (Hayes, 2019; Model 81). Exposure to the MoH’s COVID-19 social media campaign messages served as the independent variable. Interpersonal communication, attitudes, perceived norms, and self-efficacy were included as the mediating variables, and intentions to stay at home served as the dependent variable. Age, gender, marital status, and levels of education were entered as covariates. The indirect effect was calculated using 5,000 bootstrap samples for bias-corrected bootstrap confidence intervals (CIs). An indirect effect was considered statistically significant if the CI at 95% did not include the value zero.

### **Results**

*H1* stated that exposure to social media campaign messages related to the COVID-19 outbreak would predict participants’ interactions with others. As expected, results showed that participants’ interpersonal communication with family, friends, coworkers, and neighbors was positively associated with their reported frequencies of exposure to campaign messages on social media ( $B = .28, SE = .05; 95\% CI = [.197, .408]$ ). Thus, *H1* was supported.

We hypothesized that interpersonal communication would be positively associated with attitudes (*H2a*), injunctive norms (*H2b*), descriptive norms (*H2c*), and self-efficacy (*H2d*). Results showed that higher frequencies of interpersonal communication about the COVID-19 prevention messages was associated with more positive attitudes toward staying at home ( $B =$

.32,  $SE = .04$ ; 95% CI = [.183, .365]), higher injunctive norms ( $B = .36$ ,  $SE = .04$ ; 95% CI = [.181, .343]), higher descriptive norms ( $B = .22$ ,  $SE = .04$ ; 95% CI = [.077, .237]), and higher self-efficacy ( $B = .29$ ,  $SE = .05$ ; 95% CI = [.201, .380]). Thus, H2a-d were supported.

We predicted that attitudes (H3a), injunctive norms (H3b), descriptive norms (H3c), and self-efficacy (H3d) would be positively associated with intentions to stay at home. Results showed positive associations between injunctive norms and behavioral intentions ( $B = .19$ ,  $SE = .06$ ; 95% CI = [.082, .310]), and between self-efficacy and behavioral intentions ( $B = .31$ ,  $SE = .06$ ; 95% CI = [.191, .407]). Thus, H3b and H3d were supported. Contrary to H3a, results revealed that attitudes were not significantly associated with behavioral intentions ( $B = .02$ ,  $SE = .05$ ; 95% CI = [-.078, .113]). Also contrary to H3c, descriptive norms were not significantly associated with behavioral intentions ( $B = .02$ ,  $SE = .06$ ; 95% CI = [-.100, .139]). Thus, H3a and H3c were not supported.

Table 2 reported the mediation results. Specifically, we predicted that the effect of social media exposure on behavioral intentions would be mediated by interpersonal communication and attitudes (H4a), and by interpersonal communication and descriptive norms (H4c). Results did not support these predictions. We also predicted that the effect of social media exposure on behavioral intention would be mediated by interpersonal communication and injunctive norms (H4b), and by interpersonal communication and self-efficacy (H4d). Results supported these predictions. When controlling for interpersonal communication, social media message exposure had no significant influence on attitudes, injunctive norms, descriptive norms, self-efficacy, and behavioral intentions, suggesting that interpersonal communication completely mediated these associations. *RQ1* asked whether interpersonal communication mediated the effect of social media message exposure on behavioral intentions, controlling for attitudes, perceived norms, and



self-efficacy. Data revealed that attitudes, perceived norms, and self-efficacy did not fully transmit the effect of interpersonal communication on behavioral intentions. Thus, results supported the directional pathway between three variables: exposure, interpersonal communication, and behavioral intentions.

[Table 1 & 2 here]

### **Discussion**

This study added evidence to the important role of interpersonal communication as a mediating mechanism linking social media campaign exposure and health behavioral change. In particular, results of this study supported the proposition that conversations about COVID-19 mediated the association between campaign exposure and intentions to stay at home. The results also lent support for the application of the IM to further identify the mechanisms underlying this mediation effect.

Results showed that participants viewed the MoH's COVID-19 prevention social media messages and talked to others about the disease. It was likely that when faced with an imminent health threat, people were motivated to talk with others to share their concerns, seek assurances, and interpret the messages to orient their behaviors. This is particularly relevant to Vietnamese culture, which is characterized and shaped by people highly engaging in conversations to share social and health concerns (Duong et al. 2020; Jamieson, 1995). Scholars suggested that interpersonal conversations constitute a mechanism for repeating campaign information and increasing its coverage, which then leads to behavioral change (Hornik, 2020; Southwell & Yzer, 2007). Data showed the full mediation effect of interpersonal communication, which suggested that the MoH's social media campaign messages might not be influential had interpersonal communication not taken place among message receivers. It is worth noting that although the

indirect effect of social media exposure on behavioral intentions was significant, effect sizes were small. This was consistent with findings from a rigorous meta-analysis, which revealed that the effect size of media campaign-generated conversations on targeted behaviors was significant but small (Jeong & Bae, 2018). Results also revealed that interpersonal communication shaped attitudes, injunctive norms, descriptive norms, and self-efficacy. These findings suggested that social media exposure and interpersonal communication were key distal variables. However, interpersonal communication was likely preceded by social media campaign exposure. Although the current study's cross-sectional design did not allow this causal interpretation, the theory-driven nature of this association and the campaign's real-life context suggested that this directional pathway might be possible. Given that the MoH's first prevention message was disseminated in early January when the COVID-19 outbreak had yet to gain extensive Vietnamese media attention, it was likely through the MoH's messages that Vietnamese could have felt the imminent threat of the outbreak and thus, talked about it. Moreover, considering that the MoH was widely viewed as the official and highly trusted source of public health information in Vietnam (Linh & Tam, 2020), its prevention messages likely yielded public attention and triggered information transmission, which spurred interpersonal communication.

Results showed that injunctive norms and self-efficacy predicted participants' intentions to stay at home. Injunctive norms are informed by beliefs about what ought to be done based on opinions of important others (Cialdini et al., 1990). We speculated that when participants talked to influential others about the outbreak, they likely received advice and felt normative pressure to comply with this advice. This is well-aligned with collectivistic Vietnamese context, where social norms communicated by family members and important others are influential to individuals' choices (Jamieson, 1995). However, data revealed that descriptive norms did not

predict behavioral intentions. Given that descriptive norms were found to be influential in Vietnam in other health domains (e.g., Duong & Parker, 2018), this finding was somewhat surprising. Perhaps this might be because staying at home was a private behavior. Normative perceptions describing a behavior in a private setting might not be as influential as when the behavior is conducted in public (Lapinski & Rimal, 2005). Additionally, attitudes did not predict behavioral intentions. An examination of the means and standard deviation of Table 1 showed a ceiling effect of attitudinal scale that might limit the variability of attitudes toward staying at home behavior (DeVellis, 2016). Thus, it might be possible that this lack of variability of attitudes led to a nonsignificant association between attitudes and behavioral intentions. We suspected that participants were aware of the benefits of the staying at home and thus formed highly favorable attitudes toward staying at home behavior. Results also further revealed that perceived norms and self-efficacy did not fully account for the association between interpersonal communication and behavioral intentions. Scholars argued that interpersonal communication could amplify a health risk reported in the media (Ludolph et al., 2018). Empirical studies found that risk perceptions may directly lead to preventive behaviors (Bish & Michie, 2010; Yoo, 2019). Further, the protection motivation theory suggests that exposure to health campaign messages can lead to behavioral change as individuals evaluate the risk (Rogers, 1983). This might be particularly salient given that the MoH's prevention messages were disseminated with a higher frequency and the outbreak became the dominant topic in Vietnam during our data collection. Future research should examine risk perceptions as a potential mediating variable.

This study has limitations. Although data were collected with a non-student sample during a critical snapshot in time of the COVID-19 pandemic, results represented a cross-sectional design and with a non-representative sample. Given this design, our study did not allow

for causal interpretations of the results. However, our model was based on the IM and extant literature related to campaign exposure and interpersonal communication. Future studies should consider longitudinal study designs to test causal associations. The convenience sampling technique based on businesses' willingness to circulate the questionnaire might lead to the likelihood of participants having higher motivation to comply to the preventive measures as required by their organizations. They might also have higher frequencies of exposure to the MoH's campaign messages as a result of their organizations' communication about the outbreak to employees referencing the MoH's messages. Thus, results of this study might reflect a specific segment of population and not the entire country. Moreover, the generalization of results to other different sociopolitical contexts may be limited given that all mainstream media and most social media in Vietnam are, to some extent, under the government's control (Duong et al., 2019). Additionally, this study's findings could not elucidate the specific content of participants' interpersonal communication. Future studies should employ qualitative methods to gain insights into how people discussed campaign messages and associated health risks.

In conclusion, this study provided further explanations as to why Vietnam, a country with limited medical and healthcare resources, could effectively control the COVID-19 outbreak during its early stages. Results indicated the efficacy of the MoH's social media campaign and the pivotal role of interpersonal communication. These results added to the literature of public health media campaigns during the early stages of an infectious outbreak. Given these results, practitioners should leverage the power of social media and interpersonal communication to motivate preventive behaviors before and during an outbreak.

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Table 1. Descriptive statistics, correlations, and internal reliability of key variables

|                                | 1     | 2     | 3     | 4     | 5     | 6     | 7    |
|--------------------------------|-------|-------|-------|-------|-------|-------|------|
| 1. Social media exposure       |       |       |       |       |       |       |      |
| 2. Interpersonal communication | .25** |       |       |       |       |       |      |
| 3. Attitudes                   | .18** | .25** |       |       |       |       |      |
| 4. Injunctive norms            | .09   | .36** | .22** |       |       |       |      |
| 5. Descriptive norms           | .09   | .24** | .21** | .33** |       |       |      |
| 6. Self-efficacy               | .06   | .32** | .12** | .41** | .45** |       |      |
| 7. Behavioral intentions       | .04   | .32** | .15** | .37** | .26** | .45** |      |
| Mean                           | 2.85  | 3.61  | 6.65  | 4.07  | 3.72  | 3.85  | 3.85 |
| Standard Deviation             | .90   | .97   | .81   | .76   | .69   | .80   | .80  |
| Cronbach's Alpha               | .74   | .83   | .88   | .84   | .78   | .71   | .82  |

\*\* $p < .01$

*Table 2.* Direct and indirect effects of social media campaign messages on behavioral intentions

| Social distancing behavior | ES   | SE  | 95% CI        |
|----------------------------|------|-----|---------------|
| Exposure → IPC → ATT → BI  | .01  | .01 | [-.006, .010] |
| Exposure → IPC → IN → BI   | .02  | .01 | [.005, .036]  |
| Exposure → IPC → DN → BI   | .01  | .01 | [-.007, .010] |
| Exposure → IPC → SE → BI   | .03  | .01 | [.013, .053]  |
| Exposure → IPC → BI        | .05  | .02 | [.016, .086]  |
| Exposure → BI              | -.03 | .04 | [-.119, .051] |

Note: ES = effect size; SE = standard error; ATT = attitudes; IN = injunctive norms; DN = descriptive norms; SE = self-efficacy; BI = behavioral intentions.

Figure 1. Conceptual model

