Planned Behavior and Social Pressure on Healthcare Workers’ Intention to Participate in the COVID-19 Pandemic Response in Vietnam

Le Thanh Huyen¹, Pham Van Dai², Le Thu Huong³

¹,²,³Hanoi University of Home Affairs

ABSTRACT: The fourth wave of the COVID-19 epidemic forced medical workers to make sacrifices for a happy time, rest time, and time to take care of their families to join the frontline against the epidemic. To add to the evidence of previous studies on participatory behavior against the COVID-19 pandemic and to enrich the research literature and policy proposals for the Government of Vietnam, this study applies the theory of planned behavior, and social pressure explores the intention of health workers to participate in the COVID-19 pandemic response in Vietnam. This study was conducted through a cross-sectional survey using a purposive sampling technique (n=200). Multivariate linear regression analysis and moderator regression were applied to prove the proposed hypotheses. Research results show the theory of planned behavior and social pressure may explain healthcare workers’ intentions to participate in the fight against the COVID-19 pandemic. The social pressure plays a moderator role in the relationship between the subjective norms and the intention.

KEYWORDS: Theory of Planned Behavior; social pressure; medical staff; The COVID-19 pandemic; Vietnam

INTRODUCTION

Vietnamese law stipulates that Vietnamese medical staff should understand that taking care of everyone’s health is a noble profession, respect the law and strictly comply with professional regulations, and respect the right to cure. Health workers are obliged to actively participate in health propaganda and education, disease prevention and treatment, and treatment of people suffering from accidents and illnesses in the community; exemplary in living a hygienic lifestyle and keeping the environment clean (Vietnam Government, 1996). In dealing with the COVID-19 pandemic in Vietnam, all medical forces have made extremely noble sacrifices and extraordinary efforts (Thanh Nam, 2021). With the fight against COVID-19 reaching its climax, the silent sacrifices of medical forces should be honored across Vietnam (Phong Thu, 2021). Most healthcare workers dealing with the COVID-19 pandemic in Vietnam are civil servants who receive their salaries from the Vietnamese government (Vietnam Government, 2009). Many doctors and nurses volunteer to assist in COVID-19 hotspots (Thai Binh, 2021).

In the long fierce battle with COVID-19 in Vietnam, the enthusiasm of medical staff in pandemic hotspots and their willingness to face difficulties, disadvantages, and sacrifices for patients (Thanh Nam, 2021). Due to the sudden increase in workload, long working hours, and lack of necessary support, the medical staff still cling on (Thuong et al., 2021). In October 2021, about 60% of Vietnamese healthcare workers had to cope with significantly increased workload and working hours during the COVID-19 pandemic. About 40% of them said they experienced discomfort and deterioration in physical health, and 70% suffered from anxiety and depression (Thai Binh, 2021). Therefore, identifying and understanding motivational and behavioral factors is crucial in understanding why an individual performs a behavior to change behavioral practices in society (Nchise, 2012; Jokonya, 2015).

Healthcare worker motivation is widely considered a significant determinant of health worker performance (Dieleman, Gerritse, & van der Wilt, 2009). It is a primary concern of policymakers, practitioners, and researchers (Belhitéi, Van Damme, Belafia, et al., 2019; George, Scott, Govender, & World Health Organization, 2017). Most of the research on motivation performed in the health workforce field focuses on extrinsic and intrinsic motivation (Rowe, De Savigny, Lanata, & victora, 2005, Filliol, Lohmann, Turcotte-Tremblay, Somé, & Ridde, 2019; Kane, Gandidzanwa, Mutasa, Moyo, Sismayi, & Dieleman, 2019). The health sector’s performance is highly dependent on worker motivation, with service quality, efficiency, and fairness all directly mediated...
Planned Behavior and Social Pressure on Healthcare Workers' Intention to Participate in the COVID-19 Pandemic Response in Vietnam

by workers' willingness to apply to their tasks (Franco, Bennett, & Kanfer, 2002; Andersen, 2009). However, the researchers’ approach to motivating health workers under social pressure is still lacking.

In this study, we approach from the perspective of social pressure and theory of planned behavior. Social pressure influences decisions, and the relative strength of modality effects vary depending on the context (Biddle, Bank, & Slavings, 1987; Fishbein & Ajzen, 1977). Approaching from a theoretical perspective on planned behavior predicts behavior based on a combination of three factors: attitude towards behavior, subjective norms, and perceived behavioral control (Kan & Fabrigar, 2017; Ajzen, 1985, Albarracin, Johnson, Fishbein, & Muellerleile, 2001; Armitage & Conner, 2001; McEachan, Conner, Taylor, & Lawton, 2011). Theory of planned behavior is one of the most influential models in explaining health-related behaviors (Fan, Chen, Ko, Yen, Lin, Griffiths, & Pakpour, 2021). Therefore, this study aims to fill theoretical gap and provide more evidence on the relationship between public service motivation and employee satisfaction and performance in the public sector. In addition, the study also examines social pressure moderates the relationship between subjective norms and the Intention to deal with the COVID-19 pandemic.

LITERATURE REVIEWS

Theory of Planned Behavior

Theory of planned behavior applies to understanding and predicting identified behaviors. A combination of three factors determines behavioral intention: attitude towards the behavior, subjective norm, and perceived ability to control behavior (Kan & Fabrigar, 2017; Ajzen, 1985, Albarracin, Johnson, Fishbein, & Muellerleile, 2001; Armitage & Conner, 2001). Theory of planned behavior extends theory of reasoned action used to predict individual behaviors (Bagozzi, 2007), which has been very useful in predicting and understanding human behavior (Ajzen, 1985; 1987; Ajzen, 1991). According to this theory, human behavior is stimulated by behavioral intentions, influenced by underlying beliefs (Ajzen, 2002), influenced by factors that favor people’s actions, and the ability to behavioral control (Nchise, 2012; Jokonya, 2015).

Attitudes are behavioral beliefs and an individual’s perception of the possible consequences of performing a behavior (Ajzen, 2011). The subjective probability that a behavior will produce a particular outcome based on personal experience, information sources, inferences, and behavioral beliefs will create an attitude towards behavior that is favorable or unfavorable to behavior (Ajzen, 2006 & 2010).

Subjective norm is a person’s perception of society’s expectations for adopting a particular behavior with the likelihood that significant others will approve or disapprove of conduct and the motivation for compliance. It is an assessment of the importance of gaining the approval of significant others (Ajzen, 2006 & 2010) and an individual’s perception of a particular behavior. The strength of the motivation to comply or compliance with the beliefs of others involved (Ajzen, 2011) characterized linear decision-making processes (Edberg, 2015). The more favorable it is and the greater the perceived control. In addition, the greater the person’s intention to perform the behavior in question (Ajzen, 2010), which is the perceived social pressure to engage or not to engage in conduct (Ajzen, 2006), the strength of it considers compliance (Ajzen, 2006).

Perceived behavioral control is the premise of cognitive behavioral control implemented in the perceived presence of factors that can facilitate or hinder the performance of the behavior (Ajzen, 2006). It is an individual’s assessment of their individual ability to engage in intended behavior based on their perceived capacity, difficulty, or ease in performing the behavior (Ajzen, 2011).

The intention is attitudes towards subjective norms and perceived behavioral control (Ajzen & Madden, 1986; Ajzen, 1991). It is a motivational and context-specific representative goal-directed behavior (Bloom, 2000), a significant predictor of behavior (Athiyaman, 2002; Tariq et al., 2017; Warshaw & Davis, 1984).

The condition for accurately predicting an intention base on behavioral control and intention to perform a behavior must correspond to or be compatible with the intended behavior. The context, maintaining stability between the moment of assessment and observed behavior, reflects the reality of actual control (Ajzen, 1991). Behavioral intention indicates a person’s willingness to perform a specific behavior or action, which is the premise of the behavior. It follows attitudes toward behavior, subjective norms, and behavioral controls, with each predictor weighted for its importance relative to the behavior and interest of other people(Ajzen, 2006). In addition, behavioral intention indicates the level of effort and complex work individuals are willing to engage to perform the behavior (Ajzen, 2006; Ajzen, 1991). Intention prediction can be achieved through attitude towards behavior, subjective norms, and perceived behavioral control (McEachan et al., 2011). Attitude toward a behavior is formed by a personal judgment about the expected outcome of performing a behavior (Ajzen, 2011).
Planned Behavior and Social Pressure on Healthcare Workers’ Intention to Participate in the COVID-19 Pandemic Response in Vietnam

Theory of Planned Behavior in the health care

In fact, there have been applications of theory of planned behavior in the health and medical fields as predictors of self-care in hypertensive patients (Pourmand, Dosh mangir, Ahmadi, et al., 2020), blood pressure control (Ajzen & Timko, 1986; Godin & Kok, 1996; Hagger, Chatzisaranitis & Biddle, 2002), health prevention, occupational safety and other areas such as sexual behavior among junior high school students (Baudouin, Wongswat & Sudnonbua, 2020), behavioral health education interventions on HIV/AIDS prevention (Siuki, Peyman, Vahedian -Shahroodi, Gholian-Aval, & Tehrani, 2019), prevention of HIV/AIDS infection (Tarkang & Zotor, 2015; Siuki, Peyman, Vahedian-Shahroodi, Gholian-Aval, & Tehrani, 2019), public health behavior (Alberta, Proboningsih, & Almahmudah, 2014; Yanti, Mulyadi, Wahiduddin, Novika, Arina, Martani, & Nawam, 2020, Logo, Betan, & Dion, 2018), dietary behavior (Rieblet al., 2015), health behavior physical and psychosocial (Andrykowski, Beacham, Schmidt, & Harper, 2006), eating behaviors (Malek, Umberger, Makrides, & Shaojia, 2017), self-care motivation (Peters, & Templin, 2010). There have also been studies applying theory of planned behavior to predict the effectiveness of preventive measures to assess COVID-19 preventive health behaviors in Iran (Shahnazi, Ahmadi-Livani, Pahlavanzadeh, Rajab, Hamrah, & Charkazi, 2020), intention to vaccinate (Fan, Chen, Ko, Yen, Lin, Griffiths, & Pakpour, 2021; Wolff K, 2021), social distancing (Frounfelker, Santavicca, Li, Miconi, Venkatesh, & Rousseau, 2021).

Social Pressures Influence Behavior

Many previous studies have discovered the impact of social pressure on cognitive and behavioral control (Locke & Braver, 2008; Braver et al., 2008; Dambler et al., 2010; Padmala & Pessoa, 2011; Chiew & Braver, 2013 & 2014; Frober & Dreisbach, 2014). Social pressure is one of the most critical factors determining the effectiveness of cognitive performance and goal-oriented behavior, affecting individuals' positive and negative motivation through the social control system (Curley et al., 1986; Trautmann et al., 2008; Vieider, 2009; Collins & Collins, 2002; Sen, 2008; Loewenstein & Lerner, 2003). It arises from others defining outcomes and performance appraisals and create anxiety or fear (Lerner & Tetlock, 1999; Schmid et al., 2015; Latham & Locke, 2006). Social pressure deals with working memory, reasoning, problem-solving, task flexibility, planning, and execution ( Cohen et al., 1996, Braver & Barch, 2000; Botvinick et al., 2001; Miller & Cohen, 2001; Braver et al., 2001). It allows adjustment of thoughts and actions to pursue behavioral goals (Braver, 2012), directs attention to a stimulus, changes response strategies to changes in the environment, and inhibits automatic or habitual response tendencies (Robertson et al., 2015); participate in socially desirable behavior (Pitesa et al., 2013).

Cognitive control over social pressure operates through two distinct modes of action: positive control and reactive control (Braver & Barch, 2002; Braver et al., 2009; Braver, 2012). It is an active, forward-looking mode that prepares the cognitive system for upcoming events by predicting the current context. On the other hand, information processing takes place in a sustainable, goal-oriented manner (Braver, 2012), with feedback control, so information processing is more intuitive (Braver, 2012; Braver, Gray, & Burgess, 2007), suggesting appropriate behavior (Lerner & Tetlock, 1999).

Social pressure is a variable that explains behavior in many domains (Locke & Braver, 2008; Braver et al., 2009; Engelmann et al., 2009; Jimura et al., 2010; Padmala & Pessoa, 2011; Chiew & Braver, 2013 & 2014; Frober and Dreisbach, 2014; Braver et al., 2007 & 2009). An individual is under social pressure because of their motivation to act following the wishes of society (Cialdini et al., 1976, Tetlock, 1983; Tetlock et al., 1989; Klomoski & Squid, 1990; Quinn & Schlenker, 2002), rewards and punishments (Taylor et al., 2004; Sawaguchi et al., 1988; Sawaguchi & Goldman-Rakic, 1991; Arnsten et al., 1994; Schmid et al., 2015). In addition, it also explains the improvement of work performance (Latham and Locke, 2006), transparency of results (Hickman & Metz, 2015; Schmid et al., 2015), conflict resolution in the performing mission process (Schmid et al., 2015), anxiety and goal-directed behavior (Hickman & Metz, 2015). Under social pressure, cognitive and behavioral control conditions can occur (Barch et al., 1997; Braver et al., 2001 & 2005; Braver & Bongiolatti, 2002; McDonald & Carter, 2003; Paxton et al., 2006 & 2008; Locke & Braver, 2008). For healthcare workers, social pressure is time pressure related to social sharing. It causes emotional exhaustion (Wang, Zhou, Jia, et al., 2021), stress work (Amponsah-Tawiah, Kwesi & Adu Appiah, Michael, 2016), pressure for social support (Hou, Zhang, Cai, Song, Chen, Deng, et al., 2020).

HYPOTHESIS

H1. There is a positive and significant relationship between attitudes and the Intention to participate in response to the COVID-19 pandemic.

H2. There is a positive and significant relationship between perceived behavioral control and the Intention to participate in response to the COVID-19 pandemic.
Planned Behavior and Social Pressure on Healthcare Workers’ Intention to Participate in the COVID-19 Pandemic Response in Vietnam

H3. There is a positive and significant relationship between social pressure and the Intention to respond to the COVID-19 pandemic.

H4. There is a positive and significant relationship between subjective norms and the Intention to respond to the COVID-19 pandemic.

H5. Social pressure is the variable that moderates the relationship between subjective norms and the Intention to deal with the COVID-19 pandemic.

RESEARCH METHOD
We conducted this study in the Hanoi capital, Ho Chi Minh City, Binh Duong, and Bac Giang province in September 2021. These localities were at the peak of the Covid 19 pandemic with the number of patients and largest medical staff. The research team conducted in-depth interviews with three psychologists to adjust the questionnaire to suit the research objectives. The questionnaire consisting of 2 parts. Part 1 was to collect information about the demographics of the study participants, such as age, gender, education level, and occupation. In part 2, we used the questionnaire built by Ajzen (2010). It was adjusted to fit the research object to collect information on participants’ attitudes (6 items), subjective norms (5 items), cognitive-behavioral control (5 items), and employee intentions (3 items) about the intention to participate in the prevention of the Covid-19 epidemic. In addition, the questionnaire developed by Yavuzer, Karatas, Civilidag, & Gundogdu (2014) was adjusted to fit the research object to collect information about social pressure on health workers to deal with the COVID-19 pandemic, including 5 items.

The English questionnaire version was translated into Vietnamese by two professional interpreters. This process is carried out according to the rules to adapt between Vietnamese cultures. Then, after a final discussion between the translator and the principal investigator, we created a Vietnamese version. A professional bilingual sociology expert contributed to this edition with minor adjustments. This final version was pre-tested on 40 participants representing age, sex, education, and occupation demographics. The questionnaire was sent directly to the respondents by the purposeful sampling method. As a result, 200 questionnaires were distributed, all of them returned. Table 1 shows the demographic information of the study participants.

Table 1. Demographic characteristics of survey participants

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Consulting doctor</th>
<th>Epidemiologist</th>
<th>General Practitioner</th>
<th>Laboratory Technician</th>
<th>Nurse</th>
<th>Physician</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count N %</td>
<td>Count N %</td>
<td>Count N %</td>
<td>Count N %</td>
<td>Count N %</td>
<td>Count N %</td>
</tr>
<tr>
<td>female</td>
<td>17 17.3%</td>
<td>18 18.4%</td>
<td>15 15.3%</td>
<td>13 13.3%</td>
<td>22 22.4%</td>
<td>13 13.3%</td>
</tr>
<tr>
<td>male</td>
<td>16 15.7%</td>
<td>15 14.7%</td>
<td>22 21.6%</td>
<td>15 14.7%</td>
<td>17 16.7%</td>
<td>17 16.7%</td>
</tr>
<tr>
<td>25-30 years</td>
<td>3 9.7%</td>
<td>5 16.1%</td>
<td>7 22.6%</td>
<td>4 12.9%</td>
<td>6 19.4%</td>
<td>6 19.4%</td>
</tr>
<tr>
<td>31-35 years</td>
<td>6 16.2%</td>
<td>6 16.2%</td>
<td>6 16.2%</td>
<td>6 16.2%</td>
<td>7 18.9%</td>
<td>6 16.2%</td>
</tr>
<tr>
<td>36-40 years</td>
<td>4 21.1%</td>
<td>1 5.3%</td>
<td>6 31.6%</td>
<td>4 21.1%</td>
<td>3 15.8%</td>
<td>1 5.3%</td>
</tr>
<tr>
<td>41-45 years</td>
<td>6 14.6%</td>
<td>10 24.4%</td>
<td>4 9.8%</td>
<td>4 9.8%</td>
<td>9 22.0%</td>
<td>8 19.5%</td>
</tr>
<tr>
<td>46-50 years</td>
<td>7 18.9%</td>
<td>6 16.2%</td>
<td>5 13.5%</td>
<td>4 10.8%</td>
<td>9 24.3%</td>
<td>6 16.2%</td>
</tr>
<tr>
<td>above 50 years</td>
<td>7 20.0%</td>
<td>5 14.3%</td>
<td>9 25.7%</td>
<td>6 17.1%</td>
<td>5 14.3%</td>
<td>3 8.6%</td>
</tr>
<tr>
<td>Ambulance technicians</td>
<td>3 11.5%</td>
<td>6 23.1%</td>
<td>4 15.4%</td>
<td>4 15.4%</td>
<td>6 23.1%</td>
<td>3 11.5%</td>
</tr>
<tr>
<td>Bachelor of Medicine</td>
<td>8 22.9%</td>
<td>5 14.3%</td>
<td>7 20.0%</td>
<td>7 20.0%</td>
<td>5 14.3%</td>
<td>3 8.6%</td>
</tr>
</tbody>
</table>
Planned Behavior and Social Pressure on Healthcare Workers' Intention to Participate in the COVID-19 Pandemic Response in Vietnam

RESEARCH RESULTS

Analyzing the Reliability of the Scales

We analyze Cronbach’s Alpha to identify and remove garbage variables to avoid creating biased factors when analyzing exploratory factor analysis. Cronbach’s Alpha coefficient has a variable value in the interval [0,1]. Therefore, a measurement variable has Reliability coefficients ≥ 0.3, that variable meets the requirements (Cronbach, 1951; Taber, 2018). The criterion of Cronbach’s Alpha coefficient > 0.6, and the correlation coefficient of the sum variable in each scale > 0.3 (Hair, Black, Babin, & Anderson, 2010). Table 2 shows that all items meet the standards and ensure the validity of the exploratory factor analysis in the next step.

Table 2. Summary of Reliability and Relative Minimum Variables of Scales

<table>
<thead>
<tr>
<th>Scales</th>
<th>Number of variables observed</th>
<th>Reliability coefficients (Cronbach Alpha)</th>
<th>The correlation coefficient of the smallest total variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes</td>
<td>6</td>
<td>0.860</td>
<td>0.566</td>
</tr>
<tr>
<td>Subjective_Norms</td>
<td>5</td>
<td>0.784</td>
<td>0.488</td>
</tr>
<tr>
<td>Perceived Behavioural Control (PBC)</td>
<td>5</td>
<td>0.808</td>
<td>0.576</td>
</tr>
<tr>
<td>Social_pressure</td>
<td>5</td>
<td>0.789</td>
<td>0.555</td>
</tr>
<tr>
<td>Intention</td>
<td>3</td>
<td>0.663</td>
<td>0.414</td>
</tr>
</tbody>
</table>

After Cronbach’s Alpha analysis, an exploratory factor analysis extracts principal components and varimax rotation to group factors. With a sample size of 200, the factor loading of the observed variables > 0.5, and variables in the research model converge on the same element, distinguished from other factors. In addition, the Kaiser-Meyer-Olkin coefficient (KMO) must be in the range of 0.5 ≤ KMO ≤ 1 (Cerny & Kaiser, 1977; Kaiser, 1974; Snedecor, George, Cochran & William, 1989). Table 3 shows that all factor loading coefficients of the observed variables > 0.5; Bartlett test with Sig meaning. = 0.000 with KMO coefficient = 0.932. All 35 items were extracted into 4 factors with Eigenvalues > 1 and cumulative variance percent = 57.717%. Thus, the research model consisting of 4 independent variables and 1 dependent variable is used for multivariable linear regression analysis and moderator regression analysis to test the proposed hypothesis.

Table 3. Exploratory factor analysis

<table>
<thead>
<tr>
<th>Rotated Component Matrix</th>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes4</td>
<td>.766</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes3</td>
<td>.746</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes6</td>
<td>.733</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes5</td>
<td>.716</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes2</td>
<td>.687</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes1</td>
<td>.625</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PBC5</td>
<td>.735</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Planned Behavior and Social Pressure on Healthcare Workers’ Intention to Participate in the COVID-19 Pandemic Response in Vietnam

<table>
<thead>
<tr>
<th>Variable</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBC3</td>
<td>.715</td>
</tr>
<tr>
<td>PBC4</td>
<td>.710</td>
</tr>
<tr>
<td>PBC1</td>
<td>.706</td>
</tr>
<tr>
<td>PBC2</td>
<td>.705</td>
</tr>
<tr>
<td>Social_pressure1</td>
<td>.728</td>
</tr>
<tr>
<td>Social_pressure5</td>
<td>.718</td>
</tr>
<tr>
<td>Social_pressure3</td>
<td>.685</td>
</tr>
<tr>
<td>Social_pressure4</td>
<td>.657</td>
</tr>
<tr>
<td>Social_pressure2</td>
<td>.650</td>
</tr>
<tr>
<td>Subjective_Norms2</td>
<td>.726</td>
</tr>
<tr>
<td>Subjective_Norms1</td>
<td>.702</td>
</tr>
<tr>
<td>Subjective_Norms4</td>
<td>.697</td>
</tr>
<tr>
<td>Subjective_Norms3</td>
<td>.680</td>
</tr>
<tr>
<td>Subjective_Norms5</td>
<td>.673</td>
</tr>
<tr>
<td>Intention3</td>
<td>.780</td>
</tr>
<tr>
<td>Intention1</td>
<td>.734</td>
</tr>
<tr>
<td>Intention2</td>
<td>.531</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

**Pearson correlation analysis**

Pearson correlation measures the statistical relationship, or association, between quantitative variables. Figure 2 shows that the correlation coefficient of the relationship between the dependent and independent variables is statistically significant (Sig. < 0.05). Thus, the variables used to analyze the multiple linear regression and the moderator regression in the next step.

![Figure 2. Pearson correlation analysis results](image-url)
Planned Behavior and Social Pressure on Healthcare Workers’ Intention to Participate in the COVID-19 Pandemic Response in Vietnam

Linear regression analysis and Moderation regression

Multivariable linear regression determines the relationship between 4 independent variables, including attitude, subjectivity, PBC, social_pressure, and a dependent variable: Intention (model1). Moderation regression analysis to determine the role of the Social_pressure variable (model 2). The center data procedure transforms the data of the independent variables before analyzing the moderator regression. Table 4 shows that model 1 has a coefficient of determination ($R^2 = 0.301$) and model 2 ($R^2 = 0.205$). The linear regression model fit the data set of model1 = 0.301% and model2 = 0.205%. Moderation regression analysis (model 2) shows that the social pressure variable moderates the relationship between the Subjective norms variable and the Intention variable. The F-test of overall significance indicates is 95% significance level (p.value = 0.000), showing that the regression analysis model is valid.

Table 4. The results of multiple linear regression analysis

<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>Intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes</td>
<td>0.187**</td>
</tr>
<tr>
<td></td>
<td>(0.074)</td>
</tr>
<tr>
<td>PBC</td>
<td>0.157**</td>
</tr>
<tr>
<td></td>
<td>(0.071)</td>
</tr>
<tr>
<td>Social_pressure</td>
<td>0.309***</td>
</tr>
<tr>
<td></td>
<td>(0.077)</td>
</tr>
<tr>
<td>Social_pressure</td>
<td>0.306***</td>
</tr>
<tr>
<td></td>
<td>(0.071)</td>
</tr>
<tr>
<td>Subjective_Norms</td>
<td>0.178***</td>
</tr>
<tr>
<td></td>
<td>(0.064)</td>
</tr>
<tr>
<td>Social_pressure: Subjective_Norms</td>
<td>0.154**</td>
</tr>
<tr>
<td></td>
<td>(0.072)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.713***</td>
</tr>
<tr>
<td></td>
<td>(0.262)</td>
</tr>
<tr>
<td></td>
<td>2.960***</td>
</tr>
<tr>
<td></td>
<td>(0.053)</td>
</tr>
<tr>
<td>Observations</td>
<td>200</td>
</tr>
<tr>
<td>R2</td>
<td>0.301</td>
</tr>
<tr>
<td>Adjusted R2</td>
<td>0.287</td>
</tr>
<tr>
<td>Residual Std. Error</td>
<td>0.664 (df = 195)</td>
</tr>
<tr>
<td></td>
<td>0.706 (df = 196)</td>
</tr>
<tr>
<td>F Statistic</td>
<td>20.997*** (df = 4; 195)</td>
</tr>
<tr>
<td></td>
<td>16.897*** (df = 3; 196)</td>
</tr>
<tr>
<td>Note:</td>
<td>*p&lt;0.1; **p&lt;0.05; ***p&lt;0.01</td>
</tr>
</tbody>
</table>

Table 4 shows that, with 95% confidence level, the proposed hypotheses are accepted. Model1 shows that the social pressure variable has the most potent effect on the Intention variable with regression coefficient ($\beta = 0.309$), followed by the attitudes variable with regression coefficient ($\beta = 0.187$), the PBC variable with regression coefficient ($\beta = 0.157$) and finally, the subjective norms variable with regression coefficient ($\beta = 0.192$). Model2 shows social pressure variable moderates the relationship between the Subjective norms and Intention variables with regression coefficient ($\beta = 0.15$). The moderating role of the social pressure variable for the relationship between the subjective norms and intention variables is valid. Therefore, the relationship between the subjective norms and healthcare workers' intention to participate depends on the increase or decrease of the social pressure variable.
Planned Behavior and Social Pressure on Healthcare Workers’ Intention to Participate in the COVID-19 Pandemic Response in Vietnam

DISCUSSION AND CONCLUSIONS

Firstly, research results show that hypothesis H1 is accepted. In the context of Vietnam, there is a positive and significant relationship between attitudes and the intention to participate in response to the COVID-19 pandemic with regression weight ($\beta = 0.187$) and with a 95% confidence level ($p.\text{value} = 0.001$). This result shows an individual’s awareness of the possible consequences of performing the behavior (Ajzen, 2006 & 2010). Furthermore, this result indicates that the behavior of healthcare workers depends on their attitude, similar to the findings in another contexts (Adiyo and Wilopo, 2021; Wollast, Schmitz, Bigot, & Luminet, 2021; Laurel P Gibson, Renee E Magnan, Emily B Kramer, Angela D Bryan, 2021; Aldalaykeh et al., 2019; Woods, 2013).

Secondly, the research results show that hypothesis H2 is accepted. In the context of Vietnam, there is a positive and significant relationship between perceived behavioral control and intention to participate in response to the COVID-19 pandemic with regression weight ($\beta = 0.157$) and the reliability of 95% ($p.\text{value} = 0.001$). For health-care workers, cognitive-behavioral control is money that occurs when they have an awareness of factors that may facilitate or hinder performance behavior (Ajzen & 2011; Wollast, Schmitz, Bigot, & Luminet, 2021; Laurel et al., 2021; Aldalaykeh et al., 2019).

Thirdly, research results show that hypothesis H3 is accepted. There is a positive and significant relationship between subjective norms and intention to respond to the COVID-19 pandemic with weight regression ($\beta = 0.103$) and the 95% confidence level ($p.\text{value} = 0$). This result further confirms that for healthcare workers engaged in response to the COVID-19 pandemic, subjective norms relate to the likelihood that others will approve or disapprove of behavior. Furthermore, this result indicates that the behavior of healthcare workers is under tremendous pressure from society.

Fourthly, the research results show that hypothesis H4 is accepted. In the context of Vietnam, there is a positive and significant relationship between social pressure and the intention to respond to the COVID-19 pandemic (Regression coefficient $\beta = 0.309$) and 95% confidence level ($p.\text{value} = 0.001$). This result further suggests that social pressures are an antecedent of cognitive-behavioral control, the presence of which can facilitate or hinder behavioral performance (Ajzen, 2006 & 2011; Wollast, Schmitz, Bigot, & Luminet, 2021; Laurel P Gibson, Renee E Magnan, Emily B Kramer, Angela D Bryan, 2021). Table 4 shows that the social pressure factor has the most substantial impact on the behavioral intention to respond to the COVID-19 pandemic of healthcare workers in Vietnam compared with other variables in the research model. It proves that medical staff in Vietnam are under tremendous pressure from society.

Fifthly, the research results show that hypothesis H5 is accepted. In the context of Vietnam, social pressure is the variable that moderates the relationship between subjective norms and the intention to deal with the COVID-19 pandemic. Regression coefficient ($\beta = 0.154$) and 95% confidence ($p.\text{value} = 0.00$). This result shows the significant role of the social pressure factor as a context-specific proxy of goal-directed behavior in regulating other behavioral-oriented variables (Bloom, 2000; Athiyaman, 2002; Tariq). et al., 2017; Warshaw & Davis, 1984; Locke & Braver, 2008; Braver et al., 2009; Dambacher et al., 2011; Padmala & Pessoa, 2011; Chiew & Braver, 2013 & 2014; Fröber & Dreisbach, 2014). Research results show that social pressures on the intention to participate in the COVID-19 pandemic response in Vietnam adjust thinking and actions to pursue behavioral goals (Robertson et al., 2015; Pitesa et al., 2013).

Finally, the research results show that theory of planned behavior and social pressure can be applied to predict behavior in participating in the fight against the COVID-19 pandemic (Wollast, Schmitz, Bigot, & Luminet, 2021; Laurel P Gibson, Renee E Magnan, Emily B Kramer, Angela D Bryan, 2021). Theory of planned behavior should be combined with other approaches to predict health behavior (Godbersen, Hofmann, & Ruiz-Fernández, 2020). These results also show that the theory of planned behavior tends to manifest the same across countries in explaining health behaviors in different national contexts (Wollast, Schmitz, Bigot, & Luminet, 2021). This study supports the effectiveness of theory of planned behavior and social pressure in explaining intentions to perform behaviors as mentioned in previous studies (Aldalaykeh et al., 2019; Fishbein & Ajzen, 2010; Mak & Davis, 2014; Mo & Mak, 2009; Şimşekoğlu & Lajunen, 2008; Thornton & Calam, 2010; Woods, 2013).

LIMITATIONS

As with other empirical studies, this study has limitations that should be considered when discussing the results. First, our survey method reflects the subjective perception of the respondents toward the questions being investigated. Subjective data has some inherent disadvantages that are hard to avoid in surveys (Pakpour et al., 2014). Our data is collected over a single period, so there are certain limitations in analyzing and evaluating the results (Xin & Zhanyou, 2019). The intentional sampling method has certain limitations, which do not fully reflect population characteristics (Lin et al., 2016; Strong et al., 2013).
Planned Behavior and Social Pressure on Healthcare Workers' Intention to Participate in the COVID-19 Pandemic Response in Vietnam

2018. In addition, our survey was collected in a Vietnamese cultural context. Therefore more general statements are needed than could be made by applying the development research model and research conclusions to other countries and cultures (Sun et al., 2012).

Acknowledgments
The author sincerely thanks the student community of Hanoi University of Home Affairs for supporting the survey.

Conflict of interest
All authors declare that there is no conflict of interest.

REFERENCES
Planned Behavior and Social Pressure on Healthcare Workers’ Intention to Participate in the COVID-19 Pandemic Response in Vietnam


Planned Behavior and Social Pressure on Healthcare Workers’ Intention to Participate in the COVID-19 Pandemic Response in Vietnam


Planned Behavior and Social Pressure on Healthcare Workers' Intention to Participate in the COVID-19 Pandemic Response in Vietnam


77 Nguyen, Thuong & Tran, Quang & Phan, Lan & Vu, Long & Truong, Dung & Truong, Hieu & Le, Tu & Vien, Linh & Nguyen, Thinh & Luong, Quang & Pham, Quang. (2021). In the interest of public safety: Rapid response to the COVID-19 epidemic in Vietnam. BMJ Global Health. 6. e004100. 10.1136/bmjgh-2020-004100.


Planned Behavior and Social Pressure on Healthcare Workers’ Intention to Participate in the COVID-19 Pandemic Response in Vietnam


Planned Behavior and Social Pressure on Healthcare Workers’ Intention to Participate in the COVID-19 Pandemic Response in Vietnam


There is an Open Access article, distributed under the term of the Creative Commons Attribution—Non Commercial 4.0 International (CC BY-NC 4.0) (https://creativecommons.org/licenses/by-nc/4.0/), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.