

COVID-19- A Gender Based Study on Health-Protective Behavior, Resilience and Psychological Wellbeing

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ABSTRACT

Health-protective behaviors, such as eating a healthy diet, sleeping well, exercising daily, etc., can reduce the risk of contracting diseases. In uncertain times like these, people need to have health-protective behavior for the prevention of diseases. The study was undertaken to understand the relationship between health-protective behavior, resilience, and psychological well-being during this COVID-19. It was advanced to understand that people who were involved in health-protective behavior were more resilient and had better psychological well-being. It is a gender study to find the relationship between health-protective behavior, resilience, and psychological well-being. The study was conducted on a sample of 30 males and 30 females of ages 25-40 years. Standardized measures of health-protective behavior scale, resilience, and psychological well-being were administered to the participants. The study revealed that females scored significantly higher in health-protective behavior as compared to males. There was no significant difference among the sample in resilience and psychological well-being. This shows when it comes to health and measures are taken to protect ourselves from diseases females show more caution than males. This study provides an insight that there is a need to inculcate health-protective behaviors such as wearing masks, washing hands, eating a healthy diet, maintaining distance, etc. for the prevention of diseases during COVID-19.

Keywords: Health protective behavior, resilience, psychological-wellbeing, COVID-19

"To keep the body in good health is a duty...otherwise we shall not be able to keep the mind strong and clear." – Buddha

Healthy living is pivotal for having a fulfilling life. Good health is not only limited to good physical health but also good mental health. According to Ayurveda, ideal health is defined as "a balance between body, mind, spirit, and social wellbeing." Body and mind do not work in isolation, if the body is suffering from ailment, it would have its effect on the mind and vice versa. Therefore, it is of utmost importance to focus on a holistic healthy lifestyle, which means having comprehensive physical, mental and social well-being not just limited to lack of diseases.

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On March 11, 2020, World Health Organization (WHO) declared COVID-19, as a pandemic, after which the whole dynamic of the world changed. It brought the whole world to stagnation, by countries putting a restriction on international travels, government putting restrictions on the movements of their citizens, loss of lives and livelihood. The pandemic changed people's views towards the health care industry, pharmaceuticals, and also our health. Since the occurrence of the pandemic, the attention of the whole world has shifted towards having good health. More than ever people have started inculcating themselves in healthy habits of exercising daily, doing yoga or breathing exercises, having multivitamins, drinking herbal teas, etc. A behavior where people take care of their health by taking the right measures such as eating healthy diets, exercising every day, doing activities like painting, meditation and practicing mindfulness for mental health, and creating good interpersonal relationships all these habits are called health-protective behaviors. Health protective behavior not only helps to heal from ongoing diseases but also helps in the prevention of future diseases.

A study conducted in Japan has shown that if young adults have health-promoting behavior then these habits are carried forward in their later adult life (Wie et al., 2011). A comparative study on college students reveals that female students averaged statistically significant more health-protective behaviors than did male students (Lonnquist et al., 1992). Another research conducted in Germany during this pandemic supports the same findings that females are more follow health-protective behavior and the same study reveals that people with lower educational levels are less likely to follow health-protective behavior (Lüdecke & Knesebeck, 2020).

Health protective behavior

Harris & Guten (1979), Health-Protective Behavior (HPB) as any behavior performed by a person, regardless of his or her perceived or actual health status, in order to protect, promote, or maintain his or her health, whether or not such behavior is objectively effective toward that end.

Pender (2018), in the book *Health Promotion in Nursing Practice*, defined that “HPB should be viewed as an expression of the human stabilizing tendency and directed toward decreasing the individual's probability of encountering illness”.

An online survey done on Australian citizens during the early onset of COVID-19 suggests that people who were lower on health-protective behaviors were male gender, young age, and low levels of worry about the outbreak, the study also provides interventions to increase health-protective behavior (Faasee & Newby, 2020). A study done in America during the COVID-19 outbreak on American Indians measuring variables such as physical distancing, health mindset and disinfecting behavior suggesting intervention design to promote growth mindset of health may promote health-protective behavior during this pandemic (John-Henderson & Muller, 2020)

Resilience

APA (2012) defines resilience as the process of adapting well in the face of adversity, trauma, tragedy, threats, or significant sources of stress—such as family and relationship problems, serious health problems, or workplace and financial stressors.

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Dori Reissman (2012) defined that resilience is the ability to adjust rapidly to adversity in a healthy manner and is an integral component of occupational health and safety.

Resilience refers to positive adaptation, or the ability to maintain or regain mental health, despite experiencing adversity (Herman et al., 2011).

Research suggests health-protective behavior like physical fitness increases resilience and well-being in turn leads to better physical health (Silverman & Duster, 2004). Another study done on adolescents reveals that there is a significant relationship between physical activity and mental health where resilience acted as a mediator between them (Wing Ho et al., 2015)

Psychological well-being

Psychological Well-being refers to the simple notion of a person's welfare, happiness, advantages, interests, utility, and quality of life (Burriss, Brechting, Salsman, & Carlson, 2009)

Psychological well-being is usually conceptualized as some combination of positive affective states such as happiness (the hedonic perspective) and functioning with optimal effectiveness in individual and social life (the eudaimonic perspective) (Deci & Ryan, 2008) As defined by Huppert, (2009): “psychological well-being is about lives going well. It is the combination of feeling good and functioning effectively”

Subjective well-being (SWB) is the personal perception and experience of positive and negative emotional responses and global and (domain) specific cognitive evaluations of satisfaction with life. It has been defined as “a person’s cognitive and affective evaluations of his or her life” (Diener et al., 2002).

A comparative study done on religiosity with health and psychological well-being suggest people who identify with a religious belief tend to have better health and psychological well-being, whereas people who have liberal religious belief tend to be healthier but less happy (Morgan & Elliot, 2015). A study done on moderately obese women on the effects of a 12-week weight loss program revealed that practical weight loss practice yields significant health and psychological benefits (Rippe et al., 1998).

METHODOLOGY

Hypothesis

- There will be no significant relationship between health protective behavior, resilience and psychological well-being.
- There will no gender difference relationship between health protective behavior, resilience and psychological well-being.

Sample

The sample consists of 30 males and 30 females of ages 25-40 from Chandigarh and Delhi.

Measures

The following standardized tests were used,

- **Health protective behavior scale- HPBS** it is a 32 items questionnaire by Ping et al., (2018). Questionnaire was divided into two parts. In the first part there were 5 questions which were supposed to be answered in yes (1) or no (0). Part two of the

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scale had 28 questions were respondents were asked to rate on a 5 points scale ranging from 1 (never) to 5 (always). Items were summed to total score ranging from 28-135.

- **Brief resilience scale-** BRS by Smith et al. (2008) is a 6 items questionnaire for measuring resilience. The participants were asked to rate each items scored 1 (strongly disagree) and 5 (strongly agreed), it also has a reversed scale where 1 (strongly agree) and 5 (strongly disagreed). Items summed to obtain totally score ranging from 6-30.
- **Flourishing scale-** FS developed by Diener (2010) is an 8 items scale measuring psychological well-beings. The respondents were asked to rate each item on 7 points scale 1 (strongly disagree) and 7 (strongly agree). Items summed to obtained total score of 8 (lowest possible) and 56 (highest possible PSW).

Procedure

The participants were informed about the purpose of research and the questionnaires were filled through Google forms. Each participant was thanked for their cooperation. Standardized psychological tests were administered to the participants.

RESULTS

Mean, Standard Deviation Correlations & T-test were worked out to find out the relation between all the variables.

Table 1: Showing Mean & Standard Deviation of all variables. Females N=30 & males N=30

Descriptive

	GENDER	HEALTH PROTECTIVE BEHAVIOUR	BRIEF RESILENCE SCALE	WELL-BEING
N	FEMALE	30	30	30
	MALE	30	30	30
Mean	FEMALE	97.1	19.5	47.8
	MALE	84.5	20.0	46.9
Standard deviation	FEMALE	14.8	4.04	5.60
	MALE	16.3	2.58	5.46

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Table 2: Showing correlations

	HEALTH PROTECTIVE BEHAVIOUR	BRIEF RESILENCE SCALE	WELL- BEING
HEALTH PROTECTIVE BEHAVIOUR	—		
BRIEF RESILENCE SCALE	0.171	—	
WELL-BEING	0.208	0.181	—

Table 3: showing Independent T Test

	Group	N	Mean	SD	T-value Statistic
HEALTH PROTECTIVE BEHAVIOUR	FEMALE	30	97.1	14.84	3.138
	MALE	30	84.5	16.31	
BRIEF RESILENCE SCALE	FEMALE	30	19.5	4.04	-0.609
	MALE	30	20.0	2.58	
WELL-BEING	FEMALE	30	47.8	5.60	0.654
	MALE	30	46.9	5.46	

DISCUSSION

The results indicate a significant t- ratio in health-protective behavior (3.138). The study provides evidence of a significant difference between males and females in health-protective behavior. The results found out that females are higher in health-protective behavior ($t > 0.05$, p value=0.003). However, there is no significant relationship between resilience and psychological well-being amongst males and females. Also, there was no significant correlation found out between health-protective behavior, resilience, and psychological well-being.

Previous researches are done for studying health-protective behavior in respiratory epidemics and pandemics, for pharmaceutical and non-pharmaceutical behaviors shows, results show that women are about 50% more likely than men to adopt non-pharmaceutical

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behaviors, contrary men are 12% more likely than women to practice pharmaceutical behavior (Moran & Del Valle, 2016). Another study was done on undergraduate college students shows that female students have a statistically significant mean as compared to male students in health-protective behavior (Lonnquist et al., 2008). Another study done on obese children and adolescent reveals that female showed a significantly higher positive attitude when it comes to eating fruits and vegetable, they were likely to consume more cups of fruits and vegetable and more likely to use calorie information as compared to males, but when it comes to physical activity males are likely to engage more as compare to women (Amuta et al., 2016).

CONCLUSION

This study is advanced to recognize, whether men and women who have health-protective behavior had better psychological well-being and were resilient during this ongoing pandemic. The research also aims to compare gender with variables i.e., health-protective behavior, resilience, and psychological well-being. The result provides evidence of a statistically significant relationship between health-protective behaviors in females as compared to males. Whereas on other variables there was no significant relationship found. The findings of this study resonate with previous studies that showed the same results that females are higher in a health-protective variable than males. It is of real importance to have health-protective behavior during this pandemic. People should take measures to protect themselves from contracting a disease in the future.

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Conflict of Interest

The author(s) declared no conflict of interest.

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