

UNDERSTANDING PREVALENCE AND CORRELATION OF PERCEPTION'S FEAR OF COVID-19, PERCEPTION OF GENERAL HEALTH, ANXIETY DISORDER, PHYSICAL AND PSYCHOLOGICAL SYMPTOMS AMONG INTERNATIONAL STUDENTS DURING CORONA-VIRUS OUTBREAK IN CHINA

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ABSTRACT

The present study was conducted to understanding the prevalence and correlation of perception's fear of covid-19, perception of general health, anxiety disorder, physical and psychological symptoms among international students during corona-virus the outbreak in China. The current study used a correlational research design. Hundred participants were collected through non-probability purposive sampling technique. Correlational analysis showed perception's fear of Covid-19 was positively associated with a higher level of anxiety, vulnerable health, psychological and physical symptoms among students during the corona-virus outbreak in china. On the other hand, anxiety the disorder was also associated with a higher level of physical and psychological symptoms in students but it was negatively linked with demographic variables such as gender and age. However, this study's results revealed that perception of general health was positively related to higher level of anxiety disorders, physical and psychological symptoms in students but it was negatively linked with demographic variables such as gender and age. Findings also found negative perception of general health fully mediated in the relationship between perception's fear of Covid-19, perception of general health, anxiety disorder, physical and psychological symptoms among students during the corona-virus outbreak in china. In other words, perception's fear of Covid-19 was associated with a higher level of mental health problems such as anxiety disorder, psychological symptoms, and physical symptoms because it favors a higher level of negative perception of general health in students. It is concluded that international students who have a high perception of general health and anxiety disorders led to more physical and psychological symptoms.

Keywords: Perception's Fear Of Covid-19, Perception Of General Health, Anxiety Disorder, Physical And Psychological Symptoms, International Students, Corona-Virus Outbreak, China.

1.1 INTRODUCTION

In the last of December 2019, an outbreak of a new viral disease, novel coronavirus another virus from the Corona family-like SARS and MARS, was reported in Wuhan, the capital of Hubei Province, China. It subsequently gets global attention as it turned into pestilence rapidly (Xiang et al., 2020). This expeditious epidemic turned into a collective war to save the entire human civilization. Apart from China, the international community simultaneously strives for immediate mitigation and safeguards the people. On February 11, 2020, the World Health Organization officially announced for new name for the novel coronavirus as COVID-19 and expressed concerns that the virus would expand worldwide.

1.1 Perceptions of Fear of COVID-19

On March 11, 2020, WHO has declared the situation as pandemic (WHO, March 11, 2020) and this is the first pandemic caused by a virus from the Corona family. The symptoms of COVID-19 are similar to the SARS epidemic, i.e. fever, cough, dyspnea, etc. (Wang et al., 2020). As of March 12, 2020, there are 80814 COVID-19 cases found in China, where 64117 recovered and discharged from the hospital where total death tolls reached 3177 (Worldometers, 2020, March 13). The COVID-19 is spread all across the world very rapidly (total affected cases 134769 and death 4983, Worldometers, 2020, March 13, 2020). The outbreak of COVID-19 spread over a very fast period, due to the Chinese Lunar New Year, which is the biggest temporary migration of the earth (Belluz, 2020). During this occasion under normal circumstances, around 3 billion domestic trips are made where 15 million are made only from the epicenter of COVID-19 Wuhan. In contemplation of curbing the outbreak, the Chinese government imposed the lockdown and restricted transportation. Chinese nationals confined themselves for an indefinite period as part of the first level measure to major hazards public health emergency.

Fear is an adaptive emotion that serves to mobilize energy to deal with the potential threat. However, when fear is not well calibrated to the actual threat, it can be maladaptive. For instance, when fear is too excessive, this may have detrimental effects both at the individual level (e.g., mental health problems such as phobia and social anxiety), and at the societal level (e.g., panic shopping or xenophobia) (Taylor, 2020).

With the outbreak of the coronavirus disease (COVID-19; from here on simply referred to as the coronavirus) in China in December 2019 and in Europe in February 2020, national polls indicate sharp increases in fear and worries relating to the virus (Asmundson & Taylor, 2020). In a survey of 44,000 participants conducted in Belgium at the beginning of April 2020, the number of people reporting anxiety (20 %) or a depressive disorder (16 %) had increased substantially compared to a survey conducted in 2018 (i.e., 11 % and 10 % prevalence, respectively) (Sciensano, 2020). Furthermore, economic forecasts are predicting reduced economic growth (OECD, 2020) and preliminary reports are indicating increased negative attitudes to nationals from countries most heavily affected by the coronavirus (Sorokowski et al., 2020). As fear may be a central construct in explaining these negative individual and societal consequences of the coronavirus pandemic, it is important to better understand what people are exactly afraid of and establish relevant predictors.

1.2 Perception of General Health

A number of studies have been conducted into how people perceive the state of their own health (Ingham & Miller, 1979). As a rule, such estimates diverge significantly from qualified medical assessments. What the individual regards as a complaint or health problem, “illness”, may bear little relation to what is referred to as “disease”. One may well perceive the state

of one's health as being poor without there being any objective signs of disease, and vice versa (Ludwig & Gibson, 1969).

One important goal for the health service, however, is that people should feel well. But there are also other reasons for delving into this issue because the subjective complaint, rather than the (possible) disease itself, is the reason why the patient approaches the health services (Banks & Keller, 1971). There is no generally accepted method of measuring "illness". The term is ambiguous and covers everything from detailed descriptions of the particular discomfort to a general feeling of not being well (Banks & Keller, 1971).

1.3 Anxiety Disorders

Major pandemic or epidemic outbreaks are anticipated to have many negative impacts on individuals and society (Duan & Zhu, 2020). In the immediate setting of prior viral epidemics, the mental health of medical, nursing staff, and other healthcare personnel have been impacted (Chong et al., 2004). Following the emergence of the severe acute respiratory syndrome (SARS) in 2003, the Chinese government made efforts to address psychological concerns including fear and anxiety, depression, psychophysiological symptoms, and posttraumatic stress symptoms experienced by medical and nursing staff in China (Maunder et al., 2006). In the USA, in the seeing of terrorist events at the Pentagon and anthrax attacks, community coalitions to respond successfully to disaster-related mental health needs of affected individuals were observed (Dodgen et al., 2002). Thus, understanding how the COVID-19 pandemic may impact individuals may help address current and future mental health concerns.

COVID-19 may influence the mental health of many individuals. In addition to patients with COVID-19 pneumonitis, close contacts, suspected cases isolated at home, patients in clinics, families, and friends of affected people, and health professionals caring for patients, the general public may also experience elevated mental health concerns (Xiang et al., 2020). A substantial psychological impact of both the outbreak and the response among residents of the United Kingdom (The BMJ Opinion, 2020). In response to the COVID-19 outbreak in China, the National Health Commission of China published several guideline documents in January 2020 (National Health Commission of China, 2020) to address potential psychological concerns that individuals may experience relating to distress from quarantine, travel restrictions, side effects of treatment or fear of the infection itself (Kang et al., 2020).

1.4 Objective of Study

The current research was conducted to help international students in understanding the prevalence and correlation of perception's fear of covid-19, perception of general health, anxiety disorder, physical and psychological symptoms among international students during the corona-virus outbreak in China. The core determination of the present research was to provide insight into academic, social, and clinical setting about general health, anxiety disorder, physical and psychological symptoms among international students. In addition, an optimistic logic of social support was essential for an individual's growth in relations to communication, abilities, understandings, and for general health.

2. Method

2.1 Research Design

The correlational research design was used in present study.

2.2 Sample and Sampling Strategy

Purposive sampling technique was utilized to recruit a sample of 100 international students.

2.3 Procedure

Firstly, researcher gets an institutional ethical clearance letter from University. Permission was taken from the authors of scales. The researcher prepare the booklet consisting of the informed consent hold demographic sheet and scales, provided to the participants and collect data then pilot study and the main study was conducted.

2.4.3 General Health Questionnaire (GHQ; Goldberg & Hillier, 1979)

General Health Questionnaire (GHQ; Goldberg & Hillier, 1979) was developed identifying different kinds of wellbeing. It consists of 28 items, scored on Yes/No method (0= No, 1= Yes). Cronbach's alpha reliability is .70 to .88.

3. Results

Table 1

Mean and standard deviation, correlation matrix between perception's fear of Covid-19, perception of general health, anxiety disorder, physical and psychological symptoms among students during corona-virus an outbreak in china (N=100).

| Variables | M | SD | α | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------------------------|-------|-------|----------|---|-------|-------|-------|-------|--------|------|
| Perception's fear of Covid-19 | 3.85 | 1.41 | .80 | - | .31** | .34** | .43** | .43** | -.18 | -.06 |
| Perception of general health | 12.39 | 5.98 | .82 | | - | .54** | .43** | .35** | -.24* | -.11 |
| Anxiety | 19.13 | 15.46 | .94 | | | - | .49** | .58** | -.30** | -.06 |
| Physical symptoms | 6.55 | 3.05 | .65 | | | | - | .52** | -.38** | .06 |
| Psychological symptoms | 8.19 | 4.22 | .70 | | | | | - | -.21 | -.01 |
| Age | 25.48 | 4.22 | - | | | | | | - | -.13 |
| Gender | 1.24 | .43 | - | | | | | | | - |

Findings of the study revealed that overall Cronbach's alpha coefficient of all study variables was good in current study.

In Table 1, the findings of the study illustrated that perception's fear of Covid-19 was positively associated with a higher level of anxiety, vulnerable health, psychological and physical symptoms among students during the corona-virus outbreak in china. On the other hand, anxiety disorder was also associated with a higher level of physical and psychological symptoms in students but it was negatively linked with demographic variables such as gender and age. However, this study's results revealed that perception of general health was positively related to a higher level of anxiety disorders, physical and psychological symptoms in students but it was negatively linked with demographic variables such as gender and age. Regarding objective number 1 which stated "to examine the association between perception's fear of Covid-19, perception of general health, anxiety disorder, physical and psychological symptoms among students during the corona-virus outbreak in china" was supporting in current study.

Table 2

The mediating role of perception's general health between perception's fear of Covid-19, perception of general health, anxiety disorder, physical and psychological symptoms among students during the corona-virus outbreak in china (N=100).

| Variables | Perception of general health | | | Anxiety disorder | | | Psychological symptoms | | | Physical symptoms | | |
|-------------------------------|------------------------------|-----|---------|------------------|-----|--------|------------------------|-----|---------|-------------------|-----|---------|
| | B | SE | β | B | SE | B | B | SE | β | B | SE | β |
| Perception's fear of Covid-19 | 1.29 | .40 | .31** | 2.11 | .94 | .19* | 1.06 | .27 | .35*** | .69 | .19 | .32*** |
| Perception of general health | | | | 1.26 | .22 | .48*** | .15 | .06 | .21* | .17 | .04 | .33*** |

Note. * $p < .01$, ** $p < .00$, *** $p < .000$.

In Table 2, results of present study demonstrate that the model fit sufficiently; $\chi^2(15) = 19.75$, $\chi^2/df = 1.32$, $p < .181$, RMSEA = .02(.00, .04), CFI = .91, NFI = .91, IFI = .90, TLI = .92. Findings of present table revealed that perception's fear of Covid-19 was positively significant predicting negative perception of general health, anxiety disorder, psychological symptoms, and physical symptoms among students during corona-virus outbreak in china. Moreover, negative perception of general health was positively significant influencing to, anxiety disorder, psychological symptoms, and physical symptoms in student's sample. These above mention results illustrated that negative perception of general health fully mediated in the relationship between perception's fear of Covid-19, perception of general health, anxiety disorder, physical and psychological symptoms among students during corona-virus outbreak in china. In other words, perception's fear of Covid-19 was associated with higher level of mental health problems such as anxiety disorder, psychological symptoms, and physical symptoms because it favors of higher level of negative perception of general health in students. Regarding to objective number 2 which stated "to examine mediating role of perception's general health between perception's fear of Covid-19, perception of general health, anxiety disorder, physical and psychological symptoms among students during corona-virus outbreak in china" was supporting in current study.

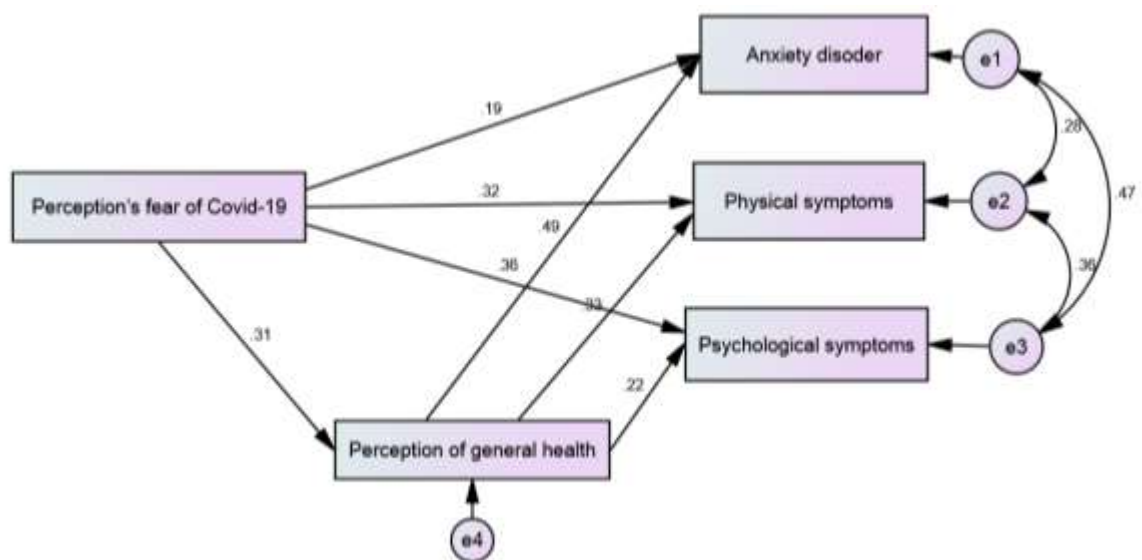


Figure 1. The mediating role of perception's general health between perception's fear of Covid-19, perception of general health, anxiety disorder, physical and psychological symptoms among students during corona-virus outbreak in china (N=100).

4. Discussion

The findings of the current study showed perception's fear of Covid-19 was positively associated with a higher level of anxiety, vulnerable health, psychological and physical symptoms among students during corona-virus an outbreak in China. Another study was conducted to examine the relationship between adjustment issues, stress, and wellbeing among new university students. Path analyses revealed that optimism mediated the relationship between stress and negative affect of wellbeing over time. Optimism emerged as a key factor for new students to adjust to university, helping to buffer the impact of stress on well-being throughout the academic year. However, findings showed stress was negatively correlated with the wellbeing of international students (Denovan & Macaskill, 2016).

Another study was conducted to examine the association between university satisfaction, loneliness, anxiety, COVID-19 related stress and depression among 248 international undergraduates in The Netherlands. Results indicate strong correlations between anxiety, loneliness, and COVID-19-related stress with university satisfaction together with social capital (Misirlis, Zwaan & Weber, 2020).

The findings of the present study showed that anxiety disorder was also associated with a higher level of physical and psychological symptoms in students but it was negatively linked with demographic variables such as gender and age. The result of previous research also supports the study findings as it showed that a study was conducted to examine the relationship between anxiety and wellbeing of international students in the UAE. Findings showed the majority of students demonstrated high levels of knowledge and utilized reliable sources of information. Almost half of the students reported anxiety levels ranging from mild to severe with females reporting higher anxiety scores as compared to males. Results revealed anxiety has a significant negative relationship with wellbeing of international students in the UAE (Zheng & Olatunji, 2016).

A COVID-19 epidemic has been spreading in China and other parts of the world since December 2019. The epidemic has brought not only the risk of death from infection but also unbearable psychological pressure. Results indicated that 0.9% of the respondents were experiencing severe anxiety, 2.7% moderate anxiety, and 21.3% mild anxiety. Moreover, results of correlation analysis indicated that economic effects, and effects on daily life, as well as delays in academic activities, were positively associated with anxiety symptoms ($P < .001$). However, well-being was negatively correlated with the level of anxiety ($P < .001$) (Cao, Fang, Guoqiang & Han, 2020).

The results of the current research showed a negative perception of general health fully mediated in the relationship between perception's fear of Covid-19, perception of general health, anxiety disorder, physical and psychological symptoms among students during the corona-virus outbreak in china. Another study was conducted to examine the knowledge, attitude, anxiety experience, and wellbeing among adult Indian population during the COVID-19 pandemic. Results showed the responders had a moderate level of knowledge about the COVID-19 infection and adequate knowledge about its preventive aspects. The attitude towards COVID-19 showed peoples' willingness to follow government guidelines on quarantine and social distancing. The anxiety levels identified in the study were high. More than 80 % of the people were preoccupied with the thoughts of COVID-19 and 72 % reported the need to use gloves, and sanitizers. In this study, sleep difficulties, paranoia about acquiring COVID-19 infection, and distress related to social media were reported in 12.5 %,

37.8 %, and 36.4 % participants respectively. Findings revealed anxiety was strongly predicted the wellbeing of Indian students (Roy et al., 2020).

A study was conducted to describe 905 students in which an online mental health and wellbeing platform was used to measure the mental health of students, all the while providing real-time individual reports to each individual student. The results indicate that complimenting measurement of distress with measurement of positive and adaptive states can more comprehensively capture the precarious mental status of our tertiary students. Moreover, findings showed anxiety was significantly predicted wellbeing of international students (Agteren, Woodyatt, Iasiello, Rayner & Kyrios, 2019).

4.1 Limitations and Recommendations

The sample size of the present research was 100. And the sample of the present study was short for better understanding. Larger sample size would allow researchers to have more data to analyze which would provide a better understanding of the topic. It will also enhance the validity and reliability of research. When a study is conducted with a small sample size there is more margin of error which decreases the validity.

4.2 Conclusions

Who have a high perception of general health and anxiety disorders led to wards more physical and psychological symptoms.

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