Investigating the effect of coronavirus on teachers' anxiety

Benti Mekonen Abdisa [a*], Addis Ababa university, Addis Ababa, Ethiopia

Abstract

The aim of this research is to survey the effect of coronavirus on the anxiety of education teachers. This research is a descriptive survey of the kinds of correlation. The sample size is 60 people, chosen using existing sampling methods. The Baker anxiety questionnaire was applied to gather data. After reviewing and confirming the statistical assumptions, SPSS 23.00, Pearson's correlation coefficient and independent *t*-test were utilised to analyse the data. In this research, the impact of corona on teacher anxiety was investigated which showed a relationship between the impact of corona and anxiety. Furthermore, the impact of corona is not different from the anxiety of teachers. The results of the statistical analysis indicated that there is a significant correlation among the impacts of the new corona on teacher anxiety and there is no difference in the impact of the new corona on men and women.

Keywords: Corona, anxiety, teachers;

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[*] ***** ADDRESS FOR CORRESPONDENCE: Benti Mekonen Abdisa, Addis Ababa university, Addis Ababa, Ethiopia
E-mail address: mekonen.b@yahoo.com

Introduction

The global pandemic of the new coronavirus (COVID-19), also regarded as severe acute respiratory syndrome COVID-19, appeared in December 2019 and poses a threat to the health and lives of millions of people around the world (Garfin, Silver, & Holman, 2020). The COVID-19 has not been brought under control and the death toll continues to rise. Governments and public healthcare systems have taken extensive measures to inhibit this disease by declaring a state of emergency. This disease has changed the way of life of millions of people around the world, and the spread of the disease and the number of deaths make people fear this disease (Rothe et al., 2020).

The stress and anxiety caused by this disease and its devastating impacts on social psychology have masked the health, mental health and adaptability of all age groups. The COVID-19 has also caused psychological problems among people around the world, especially mental disorders in certain jobs. Anxiety caused by the fear of contracting the COVID-19 has wiped out many jobs, especially education teachers. Due to the increasing spread of the COVID-19 around the world, teachers are facing many problems in life today due to this disease. School education cadres are one of the most important aspects of education, and their physical and mental conditions are naturally very important (Cumhur & Tezer, 2019; Barbisch, Koenig, & Shih, 2015).

Under such circumstances, teaching of teachers in schools has become difficult and the fear of contracting the COVID-19 has damaged the mental health of teachers around the world. Anxiety and discomfort from mysterious diseases are possible even with great care. In this global crisis, teachers come in contact with students in class, and this social relationship that teachers need has brought them psychological pressure and anxiety (Latifoglu, Uzunboylu, & Kagan, 2017).

Anxiety is a warning sign. Dangerous news is imminent. It causes people to encounter threats and fears. The same warning sign is anxiety. Reactive fear is a clear alien threat which is not in conflict from the root cause, and reaction anxiety to unknown internal danger is ambiguous. From the root, it is accompanied by a conflict between fear and urgency. Anxiety is a generalised, ambiguous and very unpleasant, which is accompanied by one or more physical emotions. A high degree of anxiety can cause serious damage to the body, psychology, social relationships, occupation and education, and deprive people of an acceptable quality of life (Katzelnick et al., 2001). Anxiety patterns are very different. Some patients have cardiovascular symptoms, increased heart rate and gastrointestinal symptoms, such as nausea, vomiting, feeling of empty stomach or 'stomach pain' due to intestinal gas or even diarrhoea. Frequent urination, shallow breathing and chest tightness are all visceral reactions. Some patients also experience muscle tension and cramps and complain of traditional muscle pain, headaches and neck sprains (Pour Afsari, 1931).

Anxiety decreases personal resistance and has a negative impact on people and social coping resources. In the long term, it will have an unpleasant impact on physical and mental health, dysfunction and ultimately reduce the quality of life (Ryan & Twibell, 2000). Anxiety disorders involve a wide range of conditions, including panic disorder, panic, obsessive–compulsive and practical disorder, post-traumatic stress disorder, inclusive anxiety and several other disorders (Kessler, Chiu, & Demler, 2001).

Cumhur and Tezer (2019) regards anxiety as a result of threats to the concept of self-concept. Self-confidence is affected by an individual's needs in the first few years of life to obtain positive opinions

and to identify parents or important persons. Children learn a precious feeling based on understanding the care, respect and evaluation of others. Self-esteem is obtained by building connections with people around oneself, especially important people. Freud (1939) called anxiety a kind of psychological pain, i.e., if the body has ulcers and diseases, its first symptom is fever. If the person has a mental disorder, the first symptom is anxiety, and every time a person encounters a psychological problem, which disturbs his psychological balance, he feels anxious (Azad, 1399).

Consistent with this research, some studies have been carried out, such as the study by Majdi (2020), which investigated the role of anxiety, COVID-19, mental health and the components of mental capital. Majdi's research shows that individuals 'higher psychological capital and psychological well-being reduce their health anxiety during epidemics and pandemics, thereby reducing their attention to personal and social psychological complications after the crisis, which prevents them from material and spiritual costs (Majdi, 2020). Ebrahimi (2020) carried out a study on the impact of the COVID-19 pandemic on teachers with generalised anxiety disorders using descriptive correlation methods. The research results indicated that the COVID-19 pandemic has increased teachers' experience of generalised anxiety via changes in health, social and educational conditions, so 6.1% of the teachers experienced generalised anxiety in outbreak conditions (Ebrahimi, 2020).

Nardi and Fiammetta (2021) studied the new face of coronaphobia anxiety. The COVID-19 pandemic changed our lives quickly and suddenly. This happened in a radical and unexpected way. Throughout 2020, it caused social distancing, restrictions on leaving the home, non-participation in social activities and even unemployment, which affected the lives of people. The health agenda before the pandemic involved a wide range of areas that require to be covered, but now it is required to draw attention to the mental health of the general population, which brings about disturbing evidence. Epidemiologists apply the waves of infection to explain this epidemic. This disease is aimed at human physical and mental health, and the anxiety caused by corona has a significant impact on mental health (Nardi & Fiammetta, 2021).

Raghavendra, Gopal, and Munuswamy (2021) conducted a study on the impact of COVID-19 on the mental health of migrant domestic workers in India: The COVID-19 anxiety approach provides a unique data set on the mental health of migrant domestic workers in India. The data were produced during the pandemic, when the entire country was a victim of severe measures to limit the spread of the COVID-19 in the form of travel restrictions and confinements, evaluating the subjects from four dimensions: Cognitive, emotional, behavioural and psychological. The results indicate that there is a significant relationship between the mental health of migrant workers in India and the COVID-19, and the mental health of workers is influenced by this infectious disease (Raghavendra et al., 2021). Pateni Savior et al. (2021) conducted a research on the COVID-19 pandemic and the cancer status of patients exposed to disease stress. During the unprecedented national epidemic and quarantine pandemic, everyone was under pressure. The presence of cancer during treatment doubled the problem. Due to the COVID-19, patient consultation and treatment plans had changed. During the period of the new COVID-19, it had a negative impact on the mental health of cancer patients. Cancer patients have said that due to social distancing and wearing masks, there are communication barriers between them and their doctors. They also feel that now there is with the decline in non-verbal communication; this research is about the challenges and perspectives that cancer patients face during isolation. This indicates the requirement for regulatory agencies, hospital administrators

and staff to take a systematic approach towards cancer patients and intervene in time for stressed people (Patni, Hota, Patni, & Misra, 2020).

Kai et al. (2021) conducted a cross-sectional study on the mental health of medical personnel during the COVID-19 outbreak. The spread of COVID-19 has become a main global public health event, threatening the physical and mental health of women, people and even the safety of their lives. The research investigated the psychological barriers of healthcare workers battling the COVID-19 epidemic and surveyed the communication between social support, resilience and mental health. The results indicated that people who have not received emergency public health treatment perform worse in mental health, flexibility and social support, and suffer from psychological disorders such as interpersonal sensitivity and anxiety. This result indicates that for health workers participating in a public health emergency for the first time, high-level training, professional experience, flexibility and social support are required (Cai et al., 2020).

This study aims to investigate the impact of the COVID-19 on teacher anxiety. Furthermore, during the period of national isolation, due to the lack of communication between teachers and classes and the lack of communication with students, the opening of online and electronic courses caused teachers to feel more anxious. Psychological conditions affect one's job performance, as well as health and body. In the present research, we attempted to survey the impact of the new COVID-19 on teachers' anxiety. This research aims to answer the following questions:

- Does the corona disease have any effect on teachers' anxiety?

- Is there a difference between the anxiety caused by corona of male and female teachers?

1. Materials and methods

This research was conducted to survey the effect of corona on the anxiety of education teachers in the seventh district of Tehran. In terms of the objective, this study used the 'descriptive' method, which is causal-comparative in terms of data collection method. The statistical population consisted of teachers who taught in schools in Tehran during the academic year 2020–2021. The statistical sample comprised teachers of schools in district 7 of Tehran province. The sample size was 60 teachers, aged 25–60 years old. The sampling method carried out was available and purposefully. After completing the Beck anxiety questionnaire, the obtained data from teachers in district 7 of Tehran province were statistically analysed. In the present research, data were gathered via library resources and measuring instruments (questionnaires). The measurement tool (questionnaire) was used on the statistical sample, and at last, the collected questionnaires were statistically analysed.

2.1. Beck anxiety inventory

The Beck anxiety inventory is a 21-item self-reporting tool designed by Beck, Epstein, Brown, and Steer (1988) to measure the severity of anxiety in adolescents and adults in both research and clinical situations. In this tool, the subject chooses one of the four options which show anxiety severity in every item (Demehri, Mehrabizadeh, Honarmand, & Yavari, 2010). The Beck anxiety questionnaire scoring is based on a 4-point Likert spectrum in the range of at all (0), mild (1), moderate (2) and severe (3). The score of each question is between 0 and 3, so the individual's score range in this questionnaire can fluctuate from 0 to 63 (Mehrabizadeh & Yari, 2010).

The anxiety severity rating in this tool (Beck Anxiety Inventory, 1988) is that the score between 0 and 7 shows minimum anxiety, the score between 8 and 15 indicates mild anxiety, the score between 16 and 25 indicates moderate anxiety and the score between 26 and 63 indicates severe anxiety. Beck et al. (1988) reported that the reliability of the retest and Cronbach's alpha anxiety questionnaire were 0.75 and 0.92, respectively. The reliability of Cronbach's alpha was reported to be 0.87 in the research of Vollestad, Sivertsen, and Nielsen (2011).

In Kaviani and Mousavi's (2008) study, the reliability of retesting and internal consistency coefficient (by calculating Cronbach's alpha coefficient) using the Beck anxiety inventory were reported to be 0.83 and 0.92, respectively. The reliability of Cronbach's alpha was reported to be 0.87 in Rafiee and Seifi's (1392) research.

The Beck anxiety inventory validity was provided by calculating the intra-class correlation between the two variables of scores prepared from the anxiety questionnaire and clinical expert's assessment about the level of anxiety in anxious population ($r = 0.72$; $p < 0.001$) (Kaviani & Mousavi, 2008).

According to Beck et al. (1988), the validity of Beck's anxiety questionnaire was reported to be 0.51 and 0.25 by calculating the correlation coefficients with the revised Hamilton anxiety rating scale (1959) and revised Hamilton depression rating scale (1960), respectively.

3. Findings

The mean age of the subjects was 35.91 years. The mean age of women in the study was 37.03 years and the mean age of men in the study was 34.8 years. Mean, standard deviation (SD) and standard error of teachers' anxiety scores in the research are shown in Table 1.

Table 1. Mean, SD and standard error of male and female teachers

Sex	Mean	SD	Standard error	Number
Male	13.4	7.85	1.43	30
Female	12.9	10.7	1.95	30

To assess the normality of data, a single-sample Kolmogorov–Smirnov test (data normality test) was applied. The results of the Kolmogorov–Smirnov test indicated the normality of data, parametric tests such as Pearson's correlation coefficient and independent *t*-test were applied to survey the relationship between corona infection and teachers' anxiety in district 7 of Tehran. Based on Table 2, there is a significant relationship between fear of corona and anxiety. The relationship between corona and the anxiety variable is positive. The correlation intensity was moderate and variance was

11%. The results indicate that the COVID-19 has an effect on teachers' anxiety in schools in district 7 of Tehran ($n = 60$, $p < 0.01$, $r = 0.34$).

Table 2. Results of Pearson's correlation analysis of corona infection and the anxiety variable

Variables	Anxiety	
	r	*p*
Corona disease	0.34	0.02

Regarding the results of the Levine test, there was no significant difference between male and female teacher groups due to variances of male teachers' anxiety and female teachers' anxiety. Thus, the assumption of the same variances was approved. Independent groups were used to compare the scores of anxieties caused by corona in male and female teachers. Table 3 shows the independent *t*-test results to compare corona-induced anxiety in male and female teachers. Considering the research, there is no difference between the anxiety caused by corona from male and female teachers, and both groups are equally anxious about the COVID-19.

Table 3. Independent *t*-test results to compare corona-induced anxiety in male and female teachers

Groups	Number	Mean	Mean difference	Standard error difference	Freedom degree	*t*	Bilateral meaning
Male	30	13.4	0.5	2.42	−4.35	0.206	0.83
Female	30	12.9	0.5	2.42	−4.36	0.206	0.83

There was no significant difference between the scores of men (*M* = 12.9, SD = 10.7) and women (*M* = 13.4, SD = 7.85) of the two domains ($p = 0.8$; $t = 0.206$). The value of differences in the mean (mean difference = 0.5; 95% CL = −4.36 to −5.36) was very small ($\eta^2 = 0.0006$).

4. Discussion

This research's results indicated that there is a relationship between COVID-19 and teachers' anxiety in district 7 of Tehran. The intensity of the relationship is moderate. Based on the study, $r = 0.34$ and $p < 0.01$. The findings of the research have a significant relationship with the studies of Majdi (2020), Rahimi (2020), Qameh (2016), Haghjoo (2010), Mojarad (2019), RahatRamroudi (2020), Sayyad (2020) and Bahador (2020) within the country and the research of Kamara (2021), Rhea and Nardy (2021), Ajarkuma (2021), NachiPatney (2021), Yazdani (2021), Kai (2021) and Lee (2019) aligned abroad. Teachers, as a member of society, like other people, are not safe from the psychological consequences of the outbreak. The anxiety of social communication with students and their parents, family, acquaintances and friends, disrupting sleep patterns, poor diet, following false and hopeless news from multiple sources, long-term concern and fear of COVID-19, lack of public education on how to quarantine suspicious people, health measures, lack of access to social support and skills training resources to enhance psychological status, students, family and acquaintances with COVID-

19, unpleasant thoughts, financial and economic problems of family and lack of effective drug treatment are general factors influencing the psychological health of teachers. To describe this study's findings, it must be noted that the fear of getting the disease causes anxiety for teachers and this psychological stress of anxiety can influence teachers' mental and physical health.

This research indicated that there is a difference between male and female teachers' anxiety regarding corona. Based on this study, $p > 0.05$ and $t = 0.206$. It indicates that both men and women teachers are equally anxious and afraid of COVID-19. The results are in line with the studies of Ebrahimi (2020), Bolandeh et al. (2020) and AlizadehFard (2020).

5. Conclusion

This research revealed that COVID-19 causes psychological issues like anxiety among teachers. The psychological effect of corona disease on humans, both during quarantine and at work, is undeniable for the jobs in which social communication is required for their jobs. Mental and physical disorders of corona disease are equal among both sexes and disrupt teachers' job function. Teachers' jobs need communication with students and this social relationship causes anxiety in teachers. However, family infection with COVID-19 and follow-up of negative news are regarded as risk factors for psychological patients' anxiety.

Teachers' mental health was considerably influenced when encountering the emergency condition of general health and consequently changes in the education process that led to the requirement for attention, assistance and support from family and society. In these situations, education has adopted solutions to solve the psychological issues that have risen; hence, it could help teachers to some extent. Establishing virtual education, familiarity with electronic content preparation and awareness of the future of the curriculum were the protective factors of teachers against anxiety caused by outbreak. Thus, it is recommended that further research be conducted to determine the effect of COVID-19 on teachers' mental health in the field of coping strategies adaptation, school approach and education system decreasing negative educational and psychological consequences, empowerment programmes and supporting psychosocial well-being of teachers. The corona disease influences teachers' anxiety. All teachers (men and women) are equally anxious and afraid of the COVID-19.

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