Stress and Achievement Motivation among Students during Covid-19 Pandemic

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Abstract:
Amidst the corona virus pandemic, this study is being undertaken to examine the prevalence of depression, stress, and anxiety levels and their relation with achievement motivation among the intermediate students. Random sampling was used to collect the data. A total of 170 students of senior secondary classes from different DAV schools of Delhi participated in the study. The age group of selected students was between 17 to 18 years. DASS Inventory for evaluating the stress, anxiety and depression and Achievement Motivation Scale were used to study the levels of achievement motivation. The results of the study revealed that due to COVID-19 there were mild to extreme severe levels of stress, depression and anxiety among the students but no significant correlation was found between achievement motivation and stress, depression and anxiety. Majority of the students displayed high achievement motivation in spite of various hurdles in between their goals.

Introduction:

The global spread of COVID-19 has shaken the world by exerting physical and psychological influence on every age group. Mental health of the people has become an important concern in present research to see the effects of COVID-19. It has identified a heightened prevalence of moderate-to-severe self-reported depressive and anxious symptomatology among the general public (Wang et al., 2020), reflecting the widespread effects of uncertainty and health-related fears. Adolescents are the most vulnerable group among the population because this stage of life is already beset by changes and challenges, even under normal circumstances. Selection of a career after Board exams is one of the major milestones in the lives of the adolescents for which they are confused as well as excited. In the Indian system of education, students have extreme pressure of securing a good percentage to compete to get admission in a reputed college and university. At the same time they are also extremely excited about the new phase of their lives. When they enter college, it's a beginning of new challenges for them as now they have freedom and responsibility for the choices they make.

In the year 2020, the students of class 12th started well with the CBSE exams but due to COVID-19 lockdown, they were unable to finish their exam satisfactorily and some of them were still waiting for the month of July to give their remaining exams. They were in the middle of uncertainty and insecurity. During the pandemic COVID 19 lockdown, students tried to explore new opportunities in careers, but they were highly stressed and become demotivated due to delay in exams and subsequently, in their college admissions, the final admission process was completed in the month of October 2020. Students also face a lot of pressure in terms of expectations from themselves and from society that results in considerable stress and anxiety. Some students, when they are not able to handle the pressure, get into depression due to which their youthful energy gets exhausted, their precious time withers and most importantly, their enthusiasm descends on a daily basis.

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Self-quarantine and social or physical-distancing are the only ways through which the spread of virus can be controlled. Certain norms have been set by the government as precautionary measures like not going out of the house and no public gatherings may incite acute stress disorders, irritability, fear, panic, avoidance behaviour, emotional distress, and other mental health consequences in the common people. Students of higher secondary class were all set to explore and hunt the different career options for them but this pandemic has made their state of mind more restless and insecure, maybe they are more at risk of having stress and anxiety. Cao et al. (2020) explored the impact of COVID-19 on students' education and well-being. Approximately 25% of their samples reported experiencing anxiety symptoms, which were positively correlated with increased concerns about academic delays, economic effects of the pandemic, and impacts on daily life. Furthermore, several surveys have been administered on students' mental health worldwide. One of the surveys by Young Minds reported that 83% of young respondents agreed that the pandemic worsened pre-existing mental health conditions, mainly due to school closures, loss of routine, and restricted social connections (YoungMinds, 2020). The fear of being left behind leads to behavioural changes in life, which can affect one's physical, emotional and psychological health. No doubt, excessive stress is a curse of modern lifestyle but this lockdown has further aggravated the situation. Students are not even being able to utilise their time, and as we know, an empty mind is a devil's workshop. This forced idleness is leading to unnecessary upsurge in depression and anxiety levels. A student's life is full of joy, challenges, new experiences and revelations and for him leading a completely sedentary life is not less than a punishment.

Because of the massive spread in the environment during pandemic, people develop fear of getting infected with the virus/disease especially when treatment is not available. These conditions commonly result in anxiety, stress, and depression, etc. (Hall et al. 2008). Stress is not a factor that resides with in an individual or the environment instead it is embedded in an ongoing process that involves individual transecting with their social and cultural environment. It can be explained as a feeling of emotional and physical tension, which arises from any event that threatens our homeostasis (Selye 1956). On the other hand, the fear of the unknown, apprehension and uncertainty is termed as anxiety; it is body's natural response to stress that can be seen in the form of over thinking and lack of concentration. (Holland 2018). Depression can be understood in terms of lack of interest in regular activities, insomnia, and withdrawal from society. It is summarized that facing a pandemic where lots of people are losing lives and facing deaths in their families without any specific treatment (vaccination), would result in the fear of the unknown (in this case, the corona virus) and making them anxious, stressed or depressed.

Looking at the psychological as well as behavioral changes in common people timely action on mental wellbeing is needed at the global level to make people physically and emotionally strong to adapt to the situation positively Xiang et al. (2020). World Health Organization has also come up with certain guidelines in public interest to address psychological issues that may arise and to make people aware about the natural reactions with some ways to deal with it. WHO (2020) Lockdown has brought high level of helplessness among working population as some of them are losing their jobs or may not getting optimal levels of emotional support. So many people have developed suicidal thoughts and even people are committing suicides (Goyal et al. 2020; Mamun and Griffiths 2020). Severe psychological distress (anxiety, stress and depression) have been found during Covid-19 among Chinese population which is reducing their capabilities to deal with the situation. (Wang et al. 2020). Another research made on Chinese nationals also stated similar results confirming the increasing level psychological distress and which is alarming also (Qiu et al. 2020). Evidently, seventeen years back mental health of the general population was also badly affected during pandemic called Severe Acute Respiratory Syndrome (SARS). Pandemic creates fear of uncontrollability that leads to rise in psychological problems among people. During SARS Leung et al. (2003) found that his respondents reported experiencing anxiety. Further in the context of consequences of such pandemic, study by Hawryluck et al. (2004) also stated that people, who were quarantined during SARS, were facing extreme psychological issues. All these studies clearly indicate that being social is a human tendency that facilitates social interaction, and when these interactions are curtailed in the form of social distancing or lockdown it results in

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loneliness (Usher et al. 2020). Van Bortel et al. (2016), and Kumar and Nayar (2020) have suggested that mental health should be considered as an important part of health to work on.

With all the challenges and issues during pandemic students of higher secondary faced a period of demotivation because of the unclarity over the situation, nobody has experienced such time earlier and everything seems bleak to them. It was a challenge for the parents and teachers to sustain the motivation of students and get them back into action. One important aspect that kept them moving at this time was their need of achievement motivation. Achievement motivation is a subjective and internal psychological drive, it enables the individuals to pursue work they perceive to be valuable and prompt them to reach their goals. Completing successfully senior secondary education is one of the major accomplishments in students' life and achievement motivation at this time is comparatively high. Christian (1977) conducted a study on higher secondary school students in which various factors such as fear of failure, hope of success, achievement and anxiety were measured and concluded that achievement and performance both have positive relation as need of one increases the demand of other also increases. Students are curious about the selection of a new course and excited about the beginning of a new life with new aims and aspirations that leads to high achievement motivation in this phase. Achievement motivation is a prerequisite to achieve, to succeed and to perform well in relation to a standard of excellence. Achievement motivation is not a single construct it has variety of different constructs like motivational beliefs, task values, goals, and achievement motives (Weigfield, 2016). It is one of the determinants of success in one's life.

Accordino et al (2000) examines the relationship of perfection with measure of academic achievement and achievement motivation and mental health aspects like depression and self-esteem in high school students. Results indicated that students' personal standards were systematic predictors of their academic achievement and achievement motivation. Most of the time, students set their own expectations, targets and rules and follow them for their better performance. Students showed anxious and depressive symptoms because of their own personal standards

(self-perfectionism) which in turn leads to achievement motivation.

According to the researches, majority of the students tend to fall somewhere in the middle of the achievement scale by Beena Shah that shows moderate level of motivation that helps them to sustain their interest in regular activities. (Alschuler, 1973). Everyone has different needs to achieve with certain concerns and these needs and concerns vary from person to situation. Each student acts according to the level of motivation he/she has in the particular task, but some students are predisposed to have little desire to accomplish certain tasks (Atkinson, 1999).

The present research is an attempt to understand the impact of COVID 19 on higher secondary school students' mental health, especially those who have given their board exams during pandemic. As the students were in the middle of uncertainties and insecurities about their results and admission for higher studies, the study has focused on four areas i.e., stress, depression, anxiety and achievement motivation of the students. The attempt is made to explore the prevalence of depression, anxiety, and stress and achievement motivation among the students. Various studies have been conducted worldwide till now to understand the impact of COVID 19 on mental health of the society so that the government can support the people in the best way. This research will also contribute in developing better understanding about the levels of depression, anxiety and stress among senior secondary students. It will be helpful in providing a better support system to the students for building their careers and dealing with the pandemic in an effective way.

Objectives:
1. To examine the levels of depression, anxiety and stress among senior secondary students during COVID 19 pandemic.
2. To assess the levels of achievement motivation of senior secondary students.
3. To study the effect of stress, anxiety and depression on the achievement motivation of senior secondary students.

Sample:
A total number of 170 students of class XII in the age group of 16 to 17 years, were taken through random sampling. All the students were from senior secondary private school and had recently

given their CBSE Board exams. An online study was conducted using Google form.

Tools:

In this study two standardized tests were used to explore the depression, anxiety, stress and achievement motivation.

Depression, Anxiety, and Stress Scale (DASS): This scalewas designed by Syd Lovibond and Peter Lovibond at the University of New South Wales in 1995. The DASS is a measure of mental health focusing on the three traits of depression, anxiety, and stress. It has a total of 42 items that measure different traits. Every statement in the scale has four options to tick between 0-3. The participant has to choose only one option as per his/her understanding of the statement. The scale demonstrates adequate internal consistency (Cronbach α: 0.761 to 0.90) and validity of the scale is between .44 to.75 in different traits of the scale.

Achievement Motivation Scale: It was developed by Dr. Beena Shah. The test consists of 40 incomplete sentences. Each of the statement is followed by three possible alternatives, a, b, or c and the participant has to select one option y relating with the statement. Achievement motivation scale by Dr. Beena Shah has a coefficient of reliability as 0.77, which confirms high reliability.

Result Analysis

Table 1. Level of Depression, Anxiety and Stress among Higher Secondary Students

Category	Depression (%)	Anxiety (%)	Stress (%)
Extremely Severe	15.8	19.4	8.2
Severe	12.3	7.6	8.2
Moderate	14.1	22.9	11.1
Mild	20	14.1	19.4
Normal	37.6	35.8	52.3

The above table revealed the level of depression, anxiety and stress among senior secondary students. First column showed depressive symptoms, it is inferred that nearly 16% of the students are falling in the category of extremely severe depression. Under severe category of depression, the percentage of students is 12.3, 14% of the students showed moderate level of depressive tendencies and 20% of the students showed mild depressive tendencies, 37.6% of the students lie in the normal category. The second column of the table showed different levels of anxiety, where 19.4 % of the students faced extremely severe anxiety. 7.6% of the students in the sample were going through severe levels of anxiety. 22.9% of the students showed moderate levels of anxiety that show occasional apprehensions. Mild anxiety level was shown by 14.1 percent of students and 35.8 percent of students experienced a normal level of anxiety. In the third column, the stress dimension has been shown in which nearly 8.2% of the sample are falling in both extremely severe and severe category. 11% of the sample had moderate stress. Nearly 19.4% of the sample experienced mild stress levels and the rest 50% of the sample showed normal levels of stress.

Table 2: Level of Achievement Motivation in higher Secondary Students

Category	Achievement Motivation (%)
Very Low	0
Low	0

Average	39.4
High	60.6

Table 2 depicts the levels of achievement motivation, in which more than 60% of the students sustained high levels of motivation and nearly 40% of the students showed average levels

of achievement motivation. It suggests that not a single student was found with low or very low levels of achievement motivation.

Table 3: Mean and Standard Deviation of Depression, Anxiety and Stress of Higher Secondary Students

	Mean	**Standard Deviation**
Depression	14.57	10.96
Anxiety	11.57	8.60
Stress	15.18	9.28
Achievement Motivation	91.92	7.39

The above table depicts the values of mean and standard deviation of depression, anxiety, and stress and achievement motivation. The mean of depression is 14.57 and standard deviation is 10.96. In the anxiety dimension, mean is 11.5 and

standard deviation is 8.60. Further in the stress, mean value is 15.18 and standard deviation is 9.28. Lastly in achievement motivation the mean value is 91.9 and standard deviation is 7.39.

Table 4. Correlation Coefficient of Depression, Anxiety, Stress and Achievement Motivation

	Depression	Anxiety	Stress	Achievement Motivation
Depression	1	.679**	.723**	-.041
Anxiety		1	.728**	-.100
Stress			1	-.096
Achievement Motivation				1

**Correlation is significant at the 0.01 level (2-tailed).

The above table shows the correlation between stress, depression, anxiety and achievement motivation. A significant correlation has been shown between depression, anxiety and stress with the r value of .679, .723 and .728 respectively. However, no significant correlation coefficient is found between achievement motivation and depression, anxiety and stress.

Discussion:

The main aim of the present study was to understand the psychological effects of the pandemic situation on the students who were going through a major transition phase in their lives. The findings of the study revealed that nearly 30% of the students had fallen in the category of extremely severe and severe depression. This signifies their fear of uncertainty and other environmental conditions and that they may need professional help since the pandemic is causing them significant distress. Pandemic made

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these students apprehensive about their education. Further, negative thoughts were overpowering their emotions and behavior. Social distancing was the major cause of depression as they were unable to meet their friends and loved ones. 14 to 20% of the students showed moderate and mild levels of depressive tendencies, which means there were times when they felt hopeless, low and they were not interested in talking about their prospective plans for the future. They lacked enthusiasm in regular activities at times. In the beginning of the lockdown period, people were relaxed as it was a break time for them from their busy schedules, but as soon as it was realized that this pandemic situation can actually have severe effects on every aspect of life, it was taken more seriously. Monotonous routine, physical as well as social restrictions, delays in exams and admissions, etc. caused mood swings, negative thoughts, cognitive distortions, self-blaming attitudes, helplessness, and suicidal thoughts among students. Most of the families had been suffering from unmanageable debts and a decline in income, thus, leaving the family members in a traumatized situation. (Fegert JM, Vitiello B, 2020). Adolescents higher in self-critical perfectionism are more anxious and have increased depression over time. Presence of Perfectionism in students finds inconsistent results on how adaptive personal standards of perfectionism may be. It also depends upon the realistic nature of the standards too. Some of the researchers suggest, this trait is protective against stress and psychological distress (e.g. Levine & Milyavskaya, 2018; Stoeber & Otto, 2006; Stoeber & Rambow, 2007). This unprecedented experience of 'home quarantine' under lockdown with the uncertainty of academic and professional career has multifaceted impacts on the mental health of students. Another Canadian study found an association between longer duration of quarantine with a higher prevalence of anxiety and depression among people (Hawryluck, 2004).

In the category of stress, results revealed that nearly 8.2% of the sample had extremely severe and severe levels of stress respectively. Such a condition may lead to total emotional and physical exhaustion in students. They often felt confused, forgetful, and seemed to have pessimistic thoughts. Further, 30% students had moderate and mild levels of stress. The reason may be regular hassles of daily living and changes in lifestyles due to COVID 19. Students commonly self-report academic-related stress they experience, such as pressure to achieve high marks and concerns about receiving poor grades. Findings of the research are supported by other researches. Organization for Economic Co-operation and Development (OECD) recently conducted a survey involving 72 countries and consisting of 540,000 student respondents aged 15–16 years. On an average across OECD countries, 66% of students reported high level of stress related to the results especially about getting poor grades and 59% stated that the thought of having a test make them worried and difficult to deal with. The OECD further found that 55% of students feel very anxious about having school tests, even if they are prepared for it. (OECD, 2017). This data clearly signifies that education and academic performance are major source of stress among students. The adolescent and younger age population has an increased likelihood of stress and psychological distress (Mazza et al., 2020; Taylor et al., 2008). The probable reason could be that young adults are vulnerable, with fewer life experiences and hence may have trouble coping with drastic societal changes during the outbreak and lockdown. They are also the ones who are more active on social media, which is swarming with rumors, which in turn induces fear, anxiety, and other associated psychological effects.

In the case of anxiety, 26% of students faced extremely severe and severe level of anxiety, which can be related to the pending exams, uncertainty about their future, the prolonged lockdown situation and the increasing spread of the Covid19 pandemic.22.9% of the students showed moderate levels of anxiety that show occasional apprehensions and fear related to academics and the pandemic. A rising number of the infected populations and fear of uncertainty were causing more anxiety in the students. Most of the students were anxious that they might be falling academically behind or the present year may be considered as Zero year for them. Researchers in China observed that a greater exposure to 'misinformation' through social media is more likely to contribute to the development of anxiety, and stress among people Gao J, Zheng P (2020).

In the achievement motivation, more than 60% of the students showed high levels of motivation that means in spite of all the hurdles and uncertainties in the present situation they were highly achievement-oriented. It can also be due to a supportive home environment and the quality time they are spending with their parents during pandemic. Atkinson and Feather (1966) studied that the children from favorable home environments tend to have a high need for

achievement as opposed to those from unfavorable home environment. Self-concept can be another factor that helps theses students to attain high level of achievement motivation. Quaisy and Turki (2011) studied self-concept and achievement motivation and results indicated that achievement motivation of the high self-concept of the male and female adolescents is greater than the average self-concept and is greater than the low self-concept. These students were showing anxiety or at times felt depressed because of the pandemic but at the same time, were thinking about achieving their goals and working towards it. Nearly 40% of the students showed average levels of achievement motivation, which may be because they were feeling lost in the crisis or were trying to move with the flow. There are many factors, which would affect the motivation level of the students like fear of unknown, lack of clarity of purpose, complexity of tasks in hand. This can also be due to the levels of stress and anxiety created by the situational factors. Though optimal level of arousal creates stress but severe level of anxiety can also distract the person from his goals. There were also students showing normal levels of anxiety, stress and depression in this study with different percentages that show they were able to deal with the current pandemic situation with a positive outlook. Appraisal of the situation, availability of the resources and resilience skills can help the people change their perception and ability to deal with the situation. A positive family environment, strong interpersonal relationship, and financial support could be some of the factors that can help people during crises.

In the second part of the study, the focus was made on the relationship between depression, anxiety, stress and the achievement motivation of the students. There was a significant correlation found between depressions, anxiety and stress as all three are interrelated to each other. Increasing spread of the virus develops ongoing stress among people and also leading to the more serious mental health issues such as anxiety and depression (Kessler, 1997; Moylan, Maes, Wray, & Berk, 2013). At the same time, achievement motivation had not shown any significant correlation with depression, anxiety and stress. EI-Anzi (2005) studied achievement motivation in relation to anxiety, self-esteem, and optimism- pessimism on Kuwaiti students. The findings reported significant positive correlation between academic achievement motivation and both optimism and self-esteem whereas, the correlations were negative between academic achievement and both anxiety and pessimism.

Findings of the present study are different, it showed that in spite of facing a lot of stress, anxiety and depression in the pandemic situation, the majority of students aimed at excellence of performance, i.e., above average levels of achievement motivation. Achievement motivation influences learning and personality development of students. Individuals with high achievement motivation are self-confident, function well in situations where they assume personal responsibility and can control what happens to them. Students having the quality of self-perfectionism also have a higher side of achievement motivation. It is found that school students who exhibit higher perfect ionistic strivings have shown increased hope for success, and higher school motivation and academic achievement (Accordino et al., 2000). Students not having a set of personal standards and systematic ways of working get distracted easily. In addition, there was a negative relation found between positive perfectionism and depression, where high school students higher on perfectionistic strivings reported less depression (Stoeber & Rambow, 2007). This provides some evidence that the adaptive form of perfectionism may increase achievement motivation and also buffer against mental health problems.

Suggestions:
In the light of the findings of this study, the following recommendations are made to ensure empowering the mental health of the students so that they can overcome the crisis and deal with the situations effectively.

- Online Counselling benefits should be practically provided to these students in the form of career counselling and emotions management as it will help them make better choices in the present situation.
- Parents should be guided to support their children in different ways and provide a platform to them where they can talk openly about any issue in their mind.
- Governments and universities can support these students by providing them complete and clear information about the further admission processes.
- Students should be encouraged to explore their interest areas in this pandemic to maintain positivity.

References:
Al-Qaisy, L.M., & Turki, J. (2011). Adolescents creativity, self-concept and achievement

motivation. British Journal of Arts and Social Sciences, 2(2), 88-101.

Alschuler, A.S. (1973). Developing achievement motivation in adolescents: Education for human growth. Educational Technology.

Atkinson, E.S. (1999). Key factors influencing pupil motivation in design and technology. Volume 10 Issue 2 (spring 1999).

Accordino, D.B., Accordino, M. P., & Slaney, R. B. (2000). An investigation of perfectionism, mental health, achievement, and achievement motivation in adolescents. Psychology in the Schools, 37(6), 535-545.

Atkinson J.W. (1966). Motivational determinants of risk taking behavior. In J.W. Feather A theory of achievement motivation N.Y.Wiley pp.149-150.

Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. Psychiatry research, 112934.

Christian, J.A. (1977). A study of fear of failure, hope of success achievement motivation anxiety and concern in the girl students of Sardar Patel university in relation to their socio economic status and performance.

El-Anzi, F.O. (2005). Academic achievement and its relationship with anxiety, self-esteem, optimism, and pessimism in Kuwaiti students. Social Behavior and Personality: an international journal, 33(1), 95-104

Fegert, J.M., Vitiello, B., Plener, P.L., & Clemens, V. (2020). Challenges and burden of the Coronavirus 2019 (COVID-19) pandemic for child and adolescent mental health: a narrative review to highlight clinical and research needs in the acute phase and the long return to normality. Child and adolescent psychiatry and mental health, 14, 1-11.

Gao, J., Zheng, P., Jia, Y., Chen, H., Mao, Y., Chen, S., & Dai, J. (2020). Mental health problems and social media exposure during COVID-19 outbreak. Plos one, 15(4), e0231924.

Goyal, K., Chauhan, P., Chhikara, K., Gupta, P., & Singh, M. P. (2020). Fear of COVID 2019: First suicidal case in India. Asian journal of psychiatry, 49, 101989.

Hall, R.C., & Chapman, M.J. (2008). The 1995 Kikwit Ebola outbreak: lessons hospitals and physicians can apply to future viral epidemics. General hospital psychiatry, 30(5), 446-452.

Hawryluck, L., Gold, W.L., Robinson, S., Pogorski, S., Galea, S., & Styra, R. (2004). SARS control and psychological effects of quarantine, Toronto, Canada. Emerging infectious diseases, 10(7), 1206.

Kessler, R.C. (1997). The effects of stressful life events on depression. Annual review of psychology, 48(1), 191-214.

Kumar, A., & Nayar, K.R. (2020). COVID 19 and its mental health consequences. Journal of Mental Health, 1-2.

Leung, G.M., Lam, T.H., Ho, L.M., Ho, S.Y., Chan, B.H.Y., Wong, I.O.L., & Hedley, A. J. (2003). The impact of community psychological responses on outbreak control for severe acute respiratory syndrome in Hong Kong. Journal of Epidemiology & Community Health, 57(11), 857-863.

Levine, S.L., & Milyavskaya, M. (2018). Domain-specific perfectionism: An examination of perfectionism beyond the trait-level and its link to well-being. Journal of Research in Personality, 74, 56-65.

Lolwal, M. (2020, March 31). 20% increase in patients with mental illness since coronavirus outbreak: Survey. https://www.indiatoday.in/india/story-1661584-2020-03.

Mamun, M.A., & Ullah, I. (2020). COVID-19 suicides in Pakistan, dying off not COVID-19 fear but poverty?The forthcoming economic challenges for a developing country. Brain, behavior, and immunity.

Mazza, C., Ricci, E., Biondi, S., Colasanti, M., Ferracuti, S., Napoli, C., & Roma, P. (2020). A nationwide survey of psychological distress among Italian people during the COVID-19 pandemic: Immediate psychological responses and associated factors. International Journal of Environmental Research and Public Health, 17(9), 3165.

Minds, Y. (2020). Coronavirus: impact on young people with mental health needs.

Moylan, S., Maes, M., Wray, N.R., & Berk, M. (2013). The neuroprogressive nature of major depressive disorder: pathways to disease evolution and resistance, and therapeutic implications. Molecular psychiatry, 18(5), 595-606.

Update, O. (2017). Organization for Economic Cooperation and Development (OECD), 2017.

Qiu, J., Shen, B., Zhao, M., Wang, Z., Xie, B., & Xu, Y. (2020). A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. General psychiatry, 33(2).

Rosenzweig, E. Q., & Wigfield, A. (2016). STEM motivation interventions for adolescents: A promising start, but further to go. Educational Psychologist, 51(2), 146-163.

Stoeber, J., & Otto, K. (2006). Positive concepts of perfectionism: Approaches, evidence, challenges.

Personality and social psychology review, 10(4), 295-319.

Stoeber, Joachim and Rambow, Anna (2007) Perfectionism in adolescent school students: Relations with motivation, achievement, and well-being. Personality and Individual Differences, 42 (7). pp. 1379-1389. ISSN 0191-8869.

Taylor, M.R., Agho, K.E., Stevens, G.J., & Raphael, B. (2008). Factors influencing psychological distress during a disease epidemic: data from Australia's first outbreak of equine influenza. BMC public health, 8(1), 347.

Usher, K., Durkin, J., & Bhullar, N. (2020). The COVID-19 pandemic and mental health impacts. International Journal of Mental Health Nursing, 29(3), 315.

Van Bortel, T., Basnayake, A., Wurie, F., Jambai, M., Koroma, A. S., Muana, A.T., & Nellums, L.B. (2016). Psychosocial effects of an Ebola outbreak 228-229.

at individual, community and international levels. Bulletin of the World Health Organization, 94(3), 210.

Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C.S., & Ho, R.C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. International journal of environmental research and public health, 17(5), 1729.

WHO. (2020). Mental health and psychosocial considerations during the COVID-19 outbreak[Ebook].

Xiang, Y.T., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., & Ng, C.H. (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. The Lancet Psychiatry, 7(3),