

Prevalence of Psychosocial Problems among Female Teachers Giving Online Education in COVID-19 Pandemic - A Questionnaire Based Cross-Sectional Survey

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Abstract: *Background:* Teachers working in the online education system implemented during COVID-19 pandemic has increased loads on the mental health due various factors as the duration of using VDTs (Visual Display Terminal) increased due to the transition of teachers to online education. It has been considered necessary to determine whether preventive programs such as to provide ergonomics, and to guide further protective tele rehabilitation programs are necessary for the health of teachers working in online education. *Aim:* To find out the impact of (COVID-19) pandemic on psychosocial health in female teachers giving online education *Materials & Methods:* Seventy-two teachers who conducted online education during the pandemic volunteered to participate in the study. All assessments were performed via online method. The Beck Depression Inventory (BDI-II) were used to examine depression. Information about before online education and during online education had obtained with the assessments. *Results:* BDI-II score increased significantly with 25% Minimal, 23.6% Mild, 34.72% Moderate and 16.66% Severe in female teachers giving online education in covid-19 pandemic. *Conclusion:* So, this study concluded that during online education in COVID-19 pandemic, depression increased Moderately in female teachers giving online education.

Keywords: Psychosocial problems, Depression, Female teachers, Online education, Covid-19 pandemic.

1. Introduction

Novel coronavirus (Covid-19) pandemic has affected almost every aspect of human life. Although it is a health crisis, it has created havoc in every aspect of human life across the globe¹. As coronavirus disease 2019 (COVID-19) pandemic continues, an increasing number of countries and territories are adopting restrictive measures based on physical (“social”) distancing, aimed at preventing human-to-human transmission and thereby limiting virus propagation. Nationwide lockdowns, encompassing mass quarantine under stay-at-home ordinances, have already been proven effective to contain the COVID19 outbreak in some countries². Lockdown, a term conventionally used as surrogate for “mass quarantine”, is typically based on “stay-at home” or “shelter-in-place”^{3,4}. Lockdown or regional quarantine is implemented in the world of education to reduce the coronavirus epidemic⁵.

The covid-19 pandemic has forced the government of many countries to shut down all educational institutions for an unpredictable period of time⁶. In India, however, the story in terms of online education tends to vary as compared to rest of the world. Regardless of the COVID-19 pandemic, this sudden shifting of education to online mode is a real challenge for India, where majority of population live in rural areas⁷.

The COVID-19 pandemic has been and will continue to be a huge challenge for the global education community and, indeed, the situation has been correctly described as

“emergency online homeschooling”⁸. In many educational institutions, campuses are closed and teaching-learning has moved online. The primary challenge is to continue teaching-learning process when students, faculties and staff could no longer be physically present on the campuses⁷. The obvious solution for the institutions was to depend online teaching-learning⁷ by the application of social distancing which indeed protect students, lecturers, teachers, and staff, to ensure the continuity of education⁹. The Work From Home (WFH) implementation to reduce the spread of Covid-19 in the world of education has been declared².

Teaching online has been challenging period of time for all teachers⁷, as it seems to place demands on faculty that are different from those encountered in the face-to-face classroom¹⁰. Teachers have problems related to work motivation due to the emergence of the burden of paying for electricity, internet costs, and excessive data security problems due to WFH¹¹ and are also supposed to increased loads on the mental health due to prolonged computer working times, inappropriate rest breaks, decreased physical activity levels, inappropriate use of smart devices and in a vicious cycle these situations have negative effects on the mental and general health status in parallel with fear of the pandemic¹². Barriers to using e-learning have an impact on psychological disorders including include voice disorders¹³, psychological stress, low self-esteem¹⁴, burnout syndrome¹⁵, and sleep problems^{16,17} with excess anxiety². In general, teachers experience anxiety, pressure, and excessive fear of the slowing education process². A large number of teachers find themselves unable to unwind after working

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hours, with work obligations encroaching on personal time¹⁸.

Changes in the usual work and lifestyle may also lead to a deterioration in teachers' work-life balance during the pandemic. The fact that all family members, including children, have to perform their daily tasks, education, and work in the home environment during the pandemic negatively affects the work-life balance¹⁹. Those problems are more predominant among female teachers as Working in educational profession has been a very demanding among women²⁰. Traditionally the role of women used to be cooking, cleaning, and raising children etc. They were looked upon as home keeper or caregiver and were denied access outside the home but today women have made their mark in each & every field²¹. Juggling between the burden, responsibilities toward society, the school environment (as these are added on to their household work and family duties)²², family expectations²³, obligations and responsibilities of work and multiple family roles and safety issues, balancing becomes very difficult and uphill and an ongoing task for teaching professionals, as much as, if not more as any other working woman²¹. So, women are more prone to depression disorders than men¹⁸.

Countries affected by the COVID-19 pandemic are forced to suspend all formal education and distance (online) education has been implemented in many schools and colleges. Teachers working in the distance education system implemented during the COVID-19 pandemic are supposed to increased loads on the mental health due various factors.

Therefore, by examining the effects of online education methods on teachers during the COVID-19 pandemic, it has been considered necessary to determine preventive programs such as to provide ergonomics, and to guide further protective telerehabilitation programs. For this purpose, this study was planned to make necessary examinations.

Aim of the Study

To find out the impact of Coronavirus disease (COVID-19) pandemic on psychosocial changes in female teachers giving online education.

Objectives

To find out the depression in female teachers giving online education during COVID-19 pandemic.

2. Materials and Methods

1) Study Design

A cross-sectional study was conducted in the form of an online, questionnaire-based survey. 72 teachers giving online education participated in the study and study duration was 1 month

Inclusion criteria:

- Secondary, higher secondary and college professors.
- Working as a teacher for at least 1 year.
- Teaching via online education methods for at least 4 weeks during the pandemic, and using visual display terminals (VDTs).

Exclusion criteria:

- Individuals with a history of traumatic injury, any neurological conditions, cardiovascular and respiratory condition or who underwent spinal or other musculoskeletal operations were excluded.
- Pregnancy

2) Measurements

After signing the consent, according to inclusion criteria, 72 individuals participated in study. In the first assessment, Individuals were requested to fill up the questionnaire about their demographic information. The socio-demographic information obtained including age, marital status, occupation duration. Individuals were asked to fill up the questionnaire considering both their pre-online and online education status including duration of online education, duration of daily use of computers and other technological devices. In the second assessment, the questionnaire used for evaluation of psychosocial status was sent to the participants electronically via Google forms. BECK DEPRESSION INDEX (BDI) scores were recorded.

Outcomes measure:

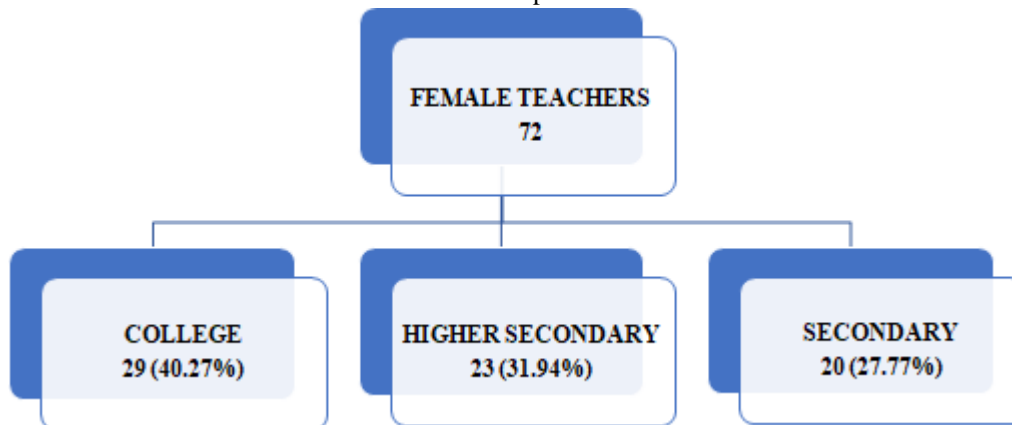
BECK DEPRESSION INDEX-II (BDI-II)–BDI-II is a questionnaire consisting of 21 groups of statements. It measures the existence and severity of symptoms of depression. BDI-II has good reliability (0.83 to 0.96) and validity (0.82 to 0.94)²⁵.

3. Result

This study was conducted to find out prevalence of psychosocial problems among female teachers giving online education in covid-19 pandemic. Seventy-two female teachers who were aged between 25-35 years and giving online education since 1 year in COVID-19 pandemic had participated in this study voluntarily. Among them married and unmarried population tend to work at college, higher secondary and secondary education. Working hours and hours of technological device before and during online education phase has been examined. Working hours before and during online education phase remained same but hours of computer use increased during online education phase.

Their socio-demographic information and prevalence BDI-II scales are described in table as below:

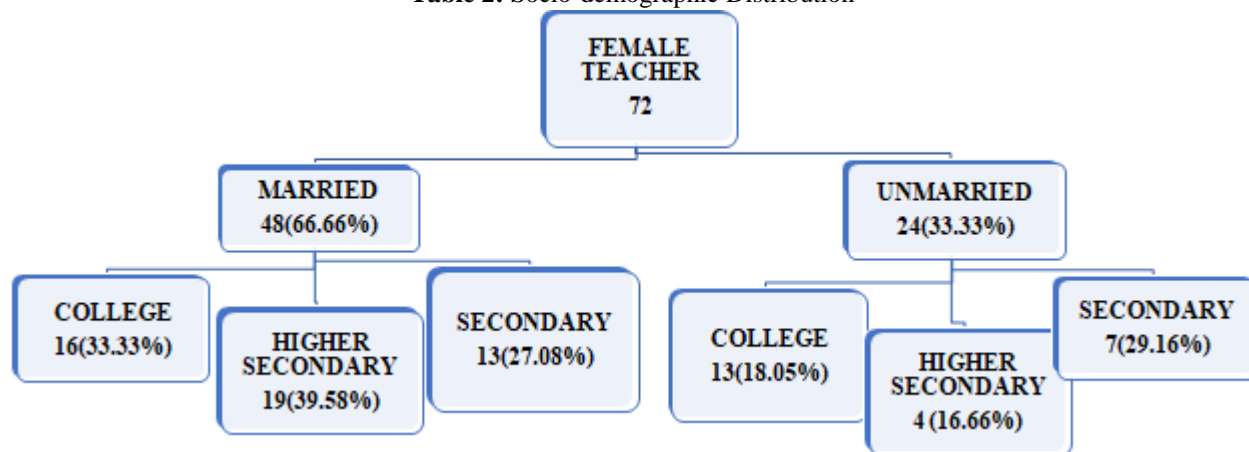
Table 1: Overall Occupational Distribution



According to Table-1, Among seventy-two female teachers giving online education, 29(40.27%) were giving online education in secondary, 23(31.94%) were giving online

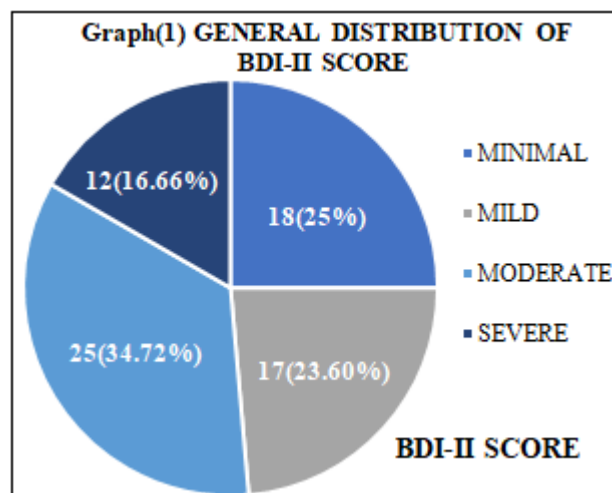
education in higher secondary and 20(27.77%) were giving online education in college.

Table 2: Socio-demographic Distribution

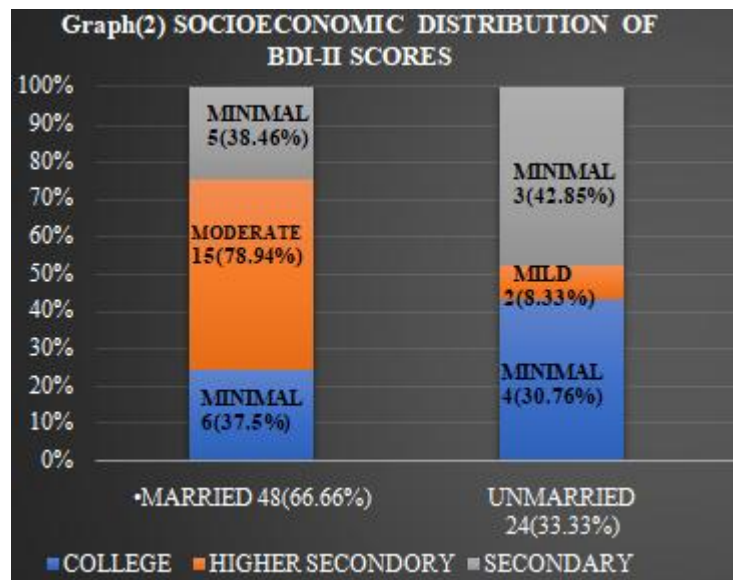


According to Table-2, among seventy-two female teachers, 48(66.66%) were married, among them, 16(33.33%) were giving online education in college, 19(39.58%) were giving online education in higher secondary and 13(27.08%) were giving online education in secondary.

Among seventy-two female teachers, 24(33.33%) were unmarried, among them, 13(18.05%) were giving online education in college, 4(16.66%) were giving online education in higher secondary and 7(29.16%) were giving online education in secondary.



According to Graph-1, among seventy-two female teachers giving online education, BDI-II scores increased moderately in major population of 25(34.72%) female teachers; BDI-II scores increased minimally in population of 18(25%) female teachers, mildly in population of 17(23.60%) female teachers and severely in population of 12(16.66%) female teachers.



According to Graph -2, Among seventy-two female teachers, in married female population of 48(66.66%); BDI-II scores increased moderately in major population of 15(78.94%) female teachers who were giving online education in higher secondary. BDI-II score increased minimally in remained population of 5(38.46%) and 6(37.5%) female teachers who were giving online education in secondary and college respectively.

Among seventy-two female teachers, in unmarried female population of 24(33.33%); BDI-II scores increased minimally in major population of 4(30.76%) female teachers who were giving online education in college. BDI-II scores increased minimally and mildly in remained population of 3(42.85%) and 2(8.33%) who were giving online education in secondary and higher secondary respectively.

4. Discussion

The present study was conducted to find out prevalence of psychosocial problems among female teachers giving online education during Covid-19 pandemic. In this study, 72 female teachers conveniently allocated to participate according to inclusion criteria. This cross-sectional study indicate that depression had been found to increase, among female teachers giving online education during Covid-19 pandemic. This study suggested that according to overall population, BDI-II (Beck Depression Inventory-II) scores increased moderately in 25(34.72%) major population of female teachers. Among them, in married population, majority of 15(78.94%) female teachers who were giving online education in higher secondary had increased depression moderately and in unmarried population majority of 4(30.76%) female teachers who were giving online education in college had increased depression minimally. Erdi Kayabınar(2021) et al reported similar findings using BDI (Beck Depression Inventory) and concluded that psychosocial problems increased in teachers during online education. With the COVID-19 pandemic, individuals have remained inactive at home due to the restrictions and quarantine, and because they have had to continue with their intensive work schedules in an unergonomic and unfamiliar environment provoking anxiety and depression, have affected individuals' psychosocial

status¹³. Emanuela Mari(2021) et al concluded that all workers have had to readjust to this new way of working, but our results show that teachers were the most affected, both in the perception of their psychological well-being and in the management of the smart working mode⁴. As numbers of working women are increasing in education sector, they have to deal with challenges like long working hour, Job insecurity, Poor relationship with colleagues, Workload, Additional responsibilities and involvement in non-teaching work, Lack of opportunity for growth and advancement and Negative Attitude of students towards study¹¹. Alka Shrivastava (2017) et al concluded that stress has negative impact on faculties. Therefore, effective stress coping strategies need to be applied by the female faculties¹¹. So, examination of psychosocial problem is necessary as it has negative impact on mental health as well as on life. Therefore, by examining the effects of online education methods on teachers during the COVID-19 pandemic, it has been considered necessary to determine preventive programs such as to provide ergonomics, and to guide further protective tele rehabilitation programs.

5. Conclusion

Teachers need to spend extra hours every day to be effective and productive in their profession. Use of computer work increased during online education phase. So, this study concluded, firstly, according to overall population, majority of female teachers had increased depression moderately. Secondly, majority of married female teachers who were giving online education in higher secondary had increased depression moderately; majority of unmarried female teachers who were giving online education in college had increased depression minimally. Depression increased minimally among female teachers giving online education in college and secondary including both (married and unmarried) population.

6. Limitations

This was study of a small number of participants. Potential participants denied to fill up online questionnaire. Only one psychological problem (depression) among teachers was studied. Involvement of multiple population (school,

colleges) was also a limitation as work characteristics may vary.

Conflict of Interest: No conflicts

Source of Funding: None

References

- [1] Daimary P. E-learning in schools during COVID-19 pandemic in rural areas. *International Journal of Management*. 2020 Nov 28;11(10).
- [2] Lippi G, Henry BM, Bovo C, Sanchis-Gomar F. Health risks and potential remedies during prolonged lockdowns for coronavirus disease 2019 (COVID-19). *Diagnosis*. 2020 Jun 1;7(2):85-90.
- [3] Babic B, Gerke S, Evgeniou T, Cohen IG. Algorithms on regulatory lockdown in medicine. *Science*. 2019 Dec 6;366(6470):1202-4.
- [4] MacIntyre CR. On a knife's edge of a COVID-19 pandemic: is containment still possible? *Public health research & practice*. 2020 Mar 10;30(1).
- [5] Abdullah I. COVID-19: Threat and fear in Indonesia. *Psychological trauma: theory, research, practice, and policy*. 2020 Jul;12(5):488.
- [6] Choudhuri NC, Paul G, Maiti AK, Kundu MS, Kundu A. Impact of training on poultry farming and evaluation of improved Nicobari fowl under intensive and extensive management systems in Andaman, India. *Mortality*. 2009;151(3.4):162-.
- [7] BANUPRIYA MS. IMPACT OF COVID-19 ON HIGHER EDUCATION–CHALLENGES AND RESPONSES.
- [8] Mari E, Lausi G, Frascetti A, Pizzo A, Baldi M, Quagliari A, Burrai J, Barchielli B, Avallone F, Giannini AM. Teaching during the pandemic: a comparison in psychological wellbeing among smart working professions. *Sustainability*. 2021 Jan;13(9):4850.
- [9] Iyer P, Aziz K, Ojcius DM. Impact of COVID-19 on dental education in the United States. *Journal of dental education*. 2020 Jun;84(6):718-22.
- [10] Raj U, Khare S. Indian education system in fight against COVID-19 pandemic. The impact of COVID19 on the international education system. Published: November 19th. 2020 Nov 19.
- [11] Purwanto A, Asbari M, Fahlevi M, Mufid A, Agistiawati E, Cahyono Y, Suryani P. Impact of work from home (WFH) on Indonesian teachers performance during the Covid-19 pandemic: An exploratory study. *International Journal of Advanced Science and Technology*. 2020;29(5):6235-44.
- [12] Kayabınar E, Kayabınar B, Önal B, Zengin HY, Köse N. The musculoskeletal problems and psychosocial status of teachers giving online education during the COVID-19 pandemic and preventive telerehabilitation for musculoskeletal problems. *Work*. 2021 Jan 1;68(1):33-43.
- [13] Thangarajathi S, Tamilselvi B. NATURAL HEALING OF PROBLEMS OF SCHOOL TEACHERS WITH THE INNER SCIENCE-YOGA. *Joy: The Journal of Yoga*. 2009 Mar 1;8(1).
- [14] Munier C, Kinsella R. The prevalence and impact of voice problems in primary school teachers. *Occupational Medicine*. 2008 Jan 1;58(1):74-6.
- [15] Khan A, Fleva E, Qazi T. Role of self-esteem and general self-efficacy in teachers' efficacy in primary schools. *Psychology*. 2015 Jan 13;6(01):117.
- [16] Tunde AO. Influence of personality and self-esteem on teachers' proness to burnout syndrome in Lagos Metropolis. *American Journal of Applied Psychology*. 2013 Mar 25;1(1):7-13.
- [17] Merey Z, PİŞKİN M, Boysan M, Şehribanoğlu S. Burnout among Turkish teachers: The influence of sleep quality and job satisfaction. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*. 2013 Jan 1;28(28-3):332-42.
- [18] Rao M, Metri KG, Raghuram N, Hongasandra NR. Effects of Mind Sound Resonance Technique (Yogic Relaxation) on Psychological States, Sleep Quality, and Cognitive Functions in Female Teachers: A Randomized, Controlled Trial. *Advances in mind-body medicine*. 2017 Dec 1;31(1):4-9.
- [19] Bouziri H, Smith DR, Descatha A, Dab W, Jean K. Working from home in the time of COVID-19: how to best preserve occupational health?. *Occupational and environmental medicine*. 2020 Jul 1;77(7):509-10.
- [20] Shrivastava A, Shukla N. Occupational stress factors and their coping strategies among female faculty members of a women college. *International Journal of Advanced Research in Management and Social Sciences*. 2017;6(2):102-14.
- [21] Petare P. A Study of work life balance of women working in teaching profession at Kolhapur. *Online International Interdisciplinary Research Journal, {Bi-Monthly}*, ISSN2249-9598. 2013 Jul;3.
- [22] Souza JC, Sousa IC, Belísio AS, Azevedo CV. Sleep habits, daytime sleepiness and sleep quality of high school teachers. *Psychology & Neuroscience*. 2012;5:257-63.
- [23] McCormick J. Psychological distancing and teachers' attribution of responsibility for occupational stress in a Catholic education system. *Issues in Educational Research*. 2000 Aug;10(1):55-66.
- [24] Supriyanto A, Hartini S, Irdasari WN, Miftahul A, Oktapiana S, Mumpuni SD. Teacher professional quality: Counselling services with technology in Pandemic Covid-19. *Counsellia: Jurnal Bimbingan dan Konseling*. 2020 Nov 24;10(2):176-89.
- [25] Yuan-Pang Wang, Psychometric properties of the Beck Depression Inventory-II: a comprehensive review. *Revista Brasileira de Psiquiatria*. 2013;35:416–431.

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