

Techno-stress among senior secondary school teachers with reference to their demographic variables

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ABSTRACT

The current study explores the influence of technostress among senior secondary school teachers of Kashmir Valley. The present descriptive study implemented a survey on 300 respondents selected via a stratified random sampling technique. The quantitative data was collected through the teacher's technostress level Likert scale by Coklar, Efiltili, and Sahin (2017), which was analyzed with the help of percentage, mean, standard deviation, and test of significance (t-test) statistical techniques. The results indicated significant differences in the technostress levels of pedagogues based on demographic variables such as gender and Locale. Based on gender, the findings of this empirical study indicate that female teachers exhibit a greater susceptibility to technostress compared to their male counterparts. Additionally, teachers hailing from rural areas were observed to display higher levels of technostress in comparison to those from urban areas. In this context, technostress must be dealt with meticulously to practice and perform teaching-learning activities effectively, efficiently, and expeditiously.

Keywords: Techno-stress, Senior Secondary School Teachers, Gender, Locale

OVERVIEW

Information and communication technology (ICT) is a two-edged sword, creating both benefits and challenges (Maier, C. 2014). It has eliminated the conceptions of time and location in corporate life. As a result, labor has decreased as output has grown, resulting in an increase in work productivity. This sort of technological advancement gave benefits in terms of the workforce in corporate life, but it also caused some negative effects for employees (Nelson, 1990; Nelson & Kletke, 1990). Technological developments in the business world have significantly reduced difficulties, although the psycho-physical workload has increased due to increasing work speed (Bayazt Hayata, 2007). Furthermore, computer operating systems and software evolves so quickly that new editions of that software are issued before users can adjust to them. As a result of these technological advancements, Users may experience a lack of confidence, weariness, and worry (Sami & Panganniah, 2006). This tremendous change is the source of our generation's biggest psychological stress, which may be taking place unreported. This stress is commonly known as technostress. Dr. Criag Brod, an American psychologist, coined the term "technostress" to describe the impacts of such negative experiences resulting from using technology (1984). According to Brod, techno-Stress is a "modern disease of adaptation caused by an inability to cope with the new computer technologies in a healthy manner." Weil and Rosen (1997) defined techno-stress as any negative impact on ideas, actions, attitudes, or body physiology that is directly or indirectly produced by technology. The concept of technostress, first described by Brod and then by Rosen and Weil, was a fair definition at the time, but it now has a new meaning with the emergence of smartphones, tablets, and digital TV in addition to the Internet (Chiappetta, 2017). technostress affects not only the workers of various institutions but also presents itself in teachers with technological fear and a lack of self-efficacy (Chen, 2012). As a result, teachers' technostress and lack of self-efficacy negatively impact classroom practices and job performance (Effiyanti & Sagala, 2018; Al-Fudail & Mellar, 2008). Another cause of teachers' technostress is their lack of technological proficiency or incapacity to repair malfunctioning technological gadgets (Al-Fudail & Mellar, 2008). To prevent teachers from Techno-Stress, they must increase their ICT competencies to avoid experiencing technostress in educational settings. Improving teachers' ICT competencies has improved their job performance (Efiyanti & Sagala, 2018). Children of today's digital age grow up surrounded by technology and are fully capable of using technological gadgets. The reality that youngsters are raised in a highly developed technological

setting means that educators have added duties to incorporate technology into their teaching and explore its flexibility in educational settings. However, if teachers view technology integration as a challenging task, they may overlook the actual potential of technology (Ertmer, Ottenbreit-Leftwich, Sadik, Sendurer&Sendurer, 2012). Even though teachers have a positive attitude towards ICT regarding active learning and individual student learning, there is still an absence of pedagogical vision when it comes to putting ICT to good use in teaching (Blamire, 2009). Some prominent researchers, e.g., Tarafdar et al. (2011), suggest that technostress is affected by gender differential. They revealed that technostress is more prevalent in men as compared to women. In contrast, some studies state otherwise. Estrada-Munoz.C et al. (2021), Syvanen et al. (2016), and Coklar & Sahin (2011) suggest that techno-anxiety, techno-fatigue & technostress are higher among female teachers. Coklar & Bozygit (2021) reveal that gender has no significant effect on levels of technostress. Wang, Shu & Tu (2008) also regard gender as an insignificant factor in technostress. Arif, Walayat, and Atiq (2011) indicated that technostress levels among genders do not differ due to similar usage of training on technology. Similarly, Bode(2017) revealed that digital technology now requires less technical skills with the advent of social media, internet tools, and mobile phones. Females have become way more competent with respect to using technology concerning certain subjects, reducing the technostress gap between the two genders. Furthermore, various studies attribute technostress to multiple factors. Shepherd (2004) argues that male and female teachers differ in computer skills, based on which technostress levels also vary among the two genders. Coklar, A. N., et al. (2016) reveals that male teachers attribute technostress to financial problems, time problems, and personal reasons. On the other hand, female teachers attribute technostress mostly to technical problems and do not regard time problems as a reason. Marchiori et al. (2019) suggest that techno-overload and techno-invasion adversely affect male teachers, while female teachers are more vulnerable to techno-complexity and techno-uncertainty.

RATIONALE OF THE STUDY

Reliance on educational technology vis-a-vis carrying on with academics of learners has become a buzzphrase since the Covid-19 pandemic broke the back of physical classes worldwide. While the parents and their wards embraced e-learning at the first go, the teachers' were caught napping due to a lack of requisite expertise in conducting virtual classes. We have seen how e-learning has become popular globally, and educators and other educational practitioners are well-versed in honing the skills of their learners through technology. The "art of teaching" is no more the domain of physical gesturing or lecturing. It is firmly got embossed in the technology sector. E-learning cannot become a pan-global phenomenon truly if the person (teacher) plying this trade is found wanting for excellence in technology. The foremost priority has to be laid on the teachers, and acquainting them with all the nuances of virtual teaching is the first "giant leap" in taking educational technology to its zenith. Since technostress has impacted the teachers of the whole world, therefore the teachers of Kashmir Valley are no exception to this.

OBJECTIVES

- i) "To find out the prevalence of techno-stress among senior secondary school teachers."
- ii) "To compare techno-stress among senior secondary school teachers based on gender."
- iii) "To compare techno-stress among senior secondary school teachers based on locale."

HYPOTHESES

- i) "There is no significant mean difference between male and female senior secondary school teachers on techno-stress."
- ii) "There is no significant mean difference between rural and urban senior secondary school teachers on techno-stress."

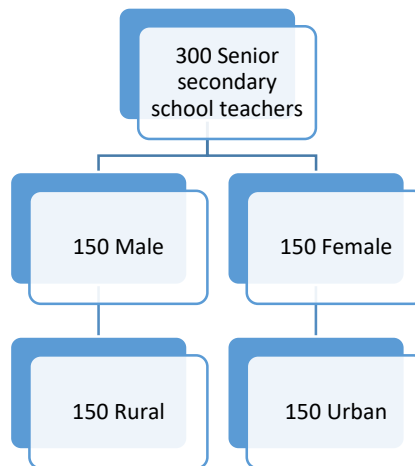
RESEARCH METHOD

The current research utilized a descriptive survey method to collect data on the extent of techno-stress experienced by teachers in senior secondary schools.

SAMPLING

This study examined various senior secondary school teachers in Baramulla District. The sample size comprised of 300 senior secondary school teachers from different schools in the region. The researcher utilized a stratified random sampling method to gather information from the selected schools.

Figure 1.1 shows the gender and locale-wise distribution of the sample.



Tools used

Teachers' Technostress level determination scale By, *Coklar, Efilti, & Sahin (2017)* was used to extract the required data. The scale consists of twenty-eight items with five components viz, i) "Learning-Teaching Process Oriented," ii) "Profession Oriented," iii) "Technical Issue Oriented," iv) "Personal Oriented," and v) "Social Oriented."

STATISTICAL TECHNIQUES

The data was analysed using statistical methods such as percentage statistics, mean, standard deviation, and t-test, which is a test of significance.

PROCEDURE

Teachers' Technostress level determination scale By, *Coklar, Efilti, & Sahin (2017)* was used to extract the required data. The survey questionnaire was disseminated using Google Forms, and the participants were notified before sending the questionnaire link.

STATISTICAL ANALYSIS

The gathered data was analyzed using SPSS version 25, and the test of significance (t-test) was employed to determine any significant differences in mean values based on gender and Locale.

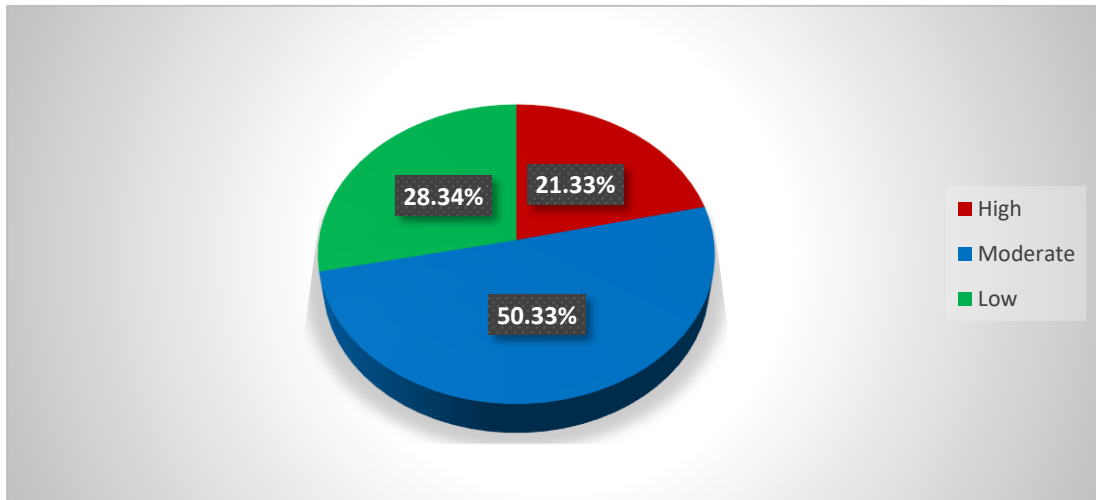
i) Prevalence Analysis

Table 1.0 presents data on the prevalence of Techno-Stress among senior secondary school teachers.

SI. No	Specification/ Levels	No. of Teachers	Percentage
1	High	64	21.33%
2	Moderate	151	50.33%
3	Low	85	28.34%
	Total	300	100%

The results acquired in the *coklar, Efilti, and Sahin (2017)* technostress questionnaire disclosed a moderate level of technostress among the senior secondary school teachers on techno-stress. Most teachers (50.33%) were positioned at a moderate level of the techno-stress scale, while 21.33% and 28.34% were observed to have high and low levels of techno-stress, respectively.

The graphical representation depicted in Figure 1.0 showcases the percentage-based prevalence of Techno-Stress among teachers in Senior Secondary Schools.



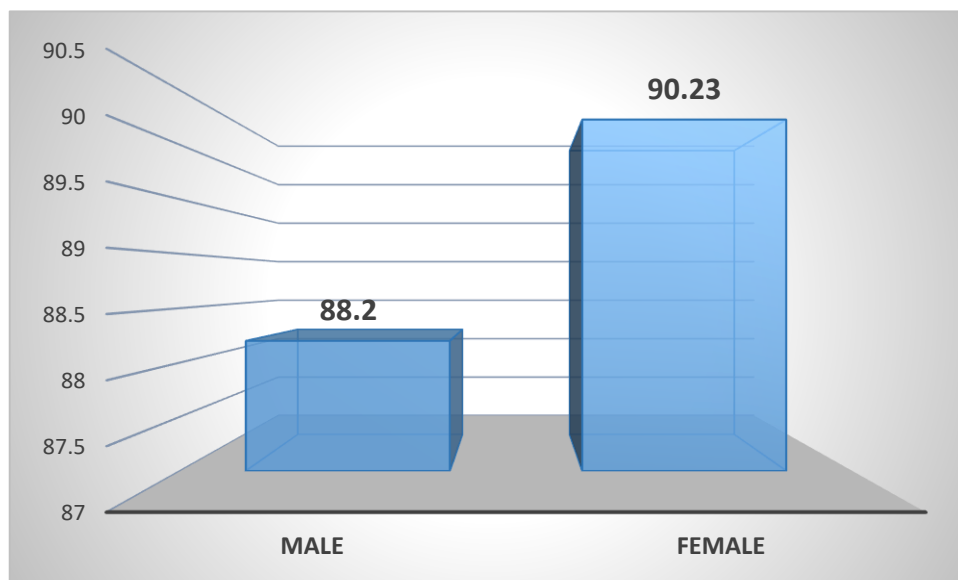
ii) Comparative Analysis

Table 2.0: Test of significance based on gender

Gender	N	Df	Mean	S.D	t-value	Sig.level
Male	150	298	88.20	6.023	3.17	0.01
Female	150		90.23	5.081		

As shown in Table 2.0, the calculated t-value (3.17) is above the critical t-value (2.58) at 0.01 level of significance with 298 df, indicating a significant difference in the average techno-stress levels for male and female teachers in senior secondary schools. The average score was higher for female teachers than the male teachers. Consequently, the first hypothesis was rejected, which stated that "there is no significant mean difference in techno-stress levels between male and female senior secondary school teachers."

Fig.2.0: Mean comparison based on gender



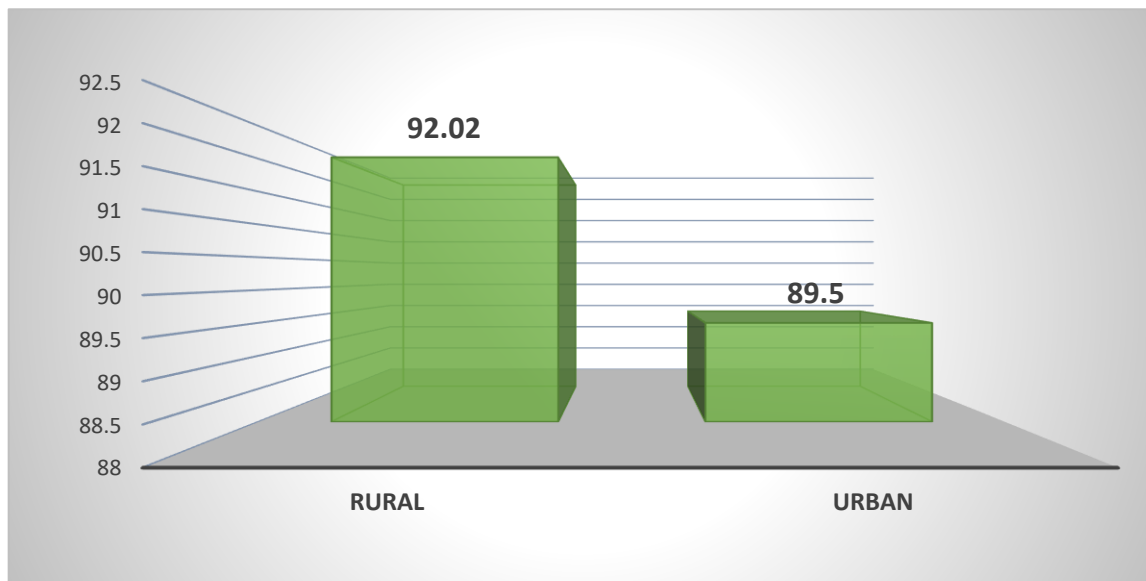
On a Likert-type scale measuring techno-stress from 0 to 28 (where higher scores imply greater techno-stress), men have lower average scores than women. It reveals that female teachers generally experience high levels of techno-stress.

Table 3.0: Test of significance based on Locale

Locale	N	df	Mean	S.D	t-value	Sig.level
Rural	150	298	92.02	4.023	5.396	0.01
Urban	150		89.50	4.099		

As shown in Table 3.0, the computed t-value (5.396) was determined to be statistically significant at a significance level of 0.01. This suggests that there exists a significant difference in the mean levels of techno-stress experienced by senior secondary school teachers in rural and urban areas. The mean score for techno-stress was higher among rural senior secondary school teachers compared to their urban counterparts. As a result, the second hypothesis, which posited the absence of a statistically significant difference in techno-stress levels between senior secondary school teachers in rural and urban areas, was also rejected.

Fig.3.0: Mean comparison based on Locale



Based on a Likert-type 28-point techno-stress scale the higher score indicates a higher level of techno-stress. Evidently, the average score of teachers in urban areas is comparatively lower to that of their counterparts in rural areas. It indicates that rural teachers have a notably higher rate of techno-stress than their urban counterparts.

DISCUSSION

The current research is comparative in nature, aiming to investigate how gender and location affect technostress among senior secondary school teachers. The results of the comparative analysis indicated a significant difference in the average technostress levels among male and female teachers, wherein female teachers encountered greater levels of technostress in comparison to their male counterparts. The findings presented herein are in alignment with a study carried out by Amin and Malla in the year 2021, which similarly documented that female educators experienced a higher level

of technostress in comparison to their male counterparts. Furthermore, a study conducted by Penado et al. in 2021 found that female teachers were negatively impacted by technology. The statistical analysis also indicated a significant difference in the mean levels of technostress between rural and urban teachers based on Locale. Specifically, the study revealed that rural teachers experienced higher levels of technostress compared to their urban counterparts. After scanning the available literature, it was found that technostress is yet to be studied on the rural-urban dichotomy. So, therefore the study indicates further exploration of unexplored areas.

CONCLUSION

It is an undeniable fact that Covid-19 has given a massive fillip to e-learning across the world. The outbreak of the pandemic in 2019 and the subsequent state of chaos where the spreading of the virus peaked globally saw more than one billion students confined at home. This is where virtual classes came to the rescue of the education sector. However, the benefits of e-learning notwithstanding, the unfamiliarity of many teachers' with technology triggered what came to be known as the technostress. Teachers have to be first fully acclimatized with the technological environment before guiding their students to educational excellence. To cope with technostress, women and rural teachers can start by setting boundaries on technology use, taking breaks, practicing mindfulness, seeking support from colleagues or mentors, and learning to use technology effectively. Additionally, attending training sessions and professional development workshops can help them to develop the necessary skills and knowledge to use technology more confidently and efficiently.

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DISCLOSURE STATEMENT

There is no potential conflict of interest.

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