

## Digital Teaching Challenges and Technostress: Post-COVID Mental Well-Being of Teachers in Odisha

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### ABSTRACT

COVID-19 is an international outbreak of COVID-19 that has led to an unforeseen shift in digital modes of studying, and this has impacted the role and working environment of teachers tremendously. The primary goal of this study is to investigate how teachers' mental health in Odisha has changed since COVID-19 and how digital teaching issues, technostress, and this state's overall mental health have been impacted. This quantitative study relies on data collected from 384 instructors from both public and private schools using an online survey with predetermined questions. Utilising structural equation modelling techniques, we investigate the postulated correlations and discover that digital teaching difficulties have a positive effect on teachers' technostress. Technostress among educators is significantly associated with psychological distress, according to this study's findings, but with a different sign from what has been stated in the hypothesis. Technostress explains both variables: digital teaching problems and mental wellness. Technostress has been identified as a significant mediator between digital teaching requirements and mental wellness for teachers. Findings obtained in this research establish the importance of supportive systems, digital learning sessions, time management, and mental wellness for professionals to achieve a lasting emphasis on digital learning in the post-COVID scenario in developing countries such as Odisha.

**Keywords::** Digital teaching challenges, Technostress, Mental well-being, Post Covid Education, Teachers..

### INTRODUCTION:

The COVID-19 outbreak at the beginning of 2020 brought a level of disruption never experienced before, causing tremendous effects on social, economic, and educational systems. Educational institutions were forced to lock their doors after the World Health Organisation, designated COVID-19 as a pandemic. Consequently, teaching and learning activities quickly moved online. Prior to the pandemic, digital education largely functioned as a supplementary tool, however, during COVID-19 it became the primary mode of instruction, implemented instantly on a massive scale to reduce virus transmission (Auger & Formentin, 2021) (Dogra & Kaushal, 2022).

This sudden transmission placed immense pressure to teachers, who were required to redesign pedagogical practices, adopt unfamiliar digital platforms, and ensure continuity of learning in a highly volatile, uncertain, complex, and ambiguous (VUCA) environment, as described by UNESCO (Hadar et al., 2020). Owing to the lack of readiness in online learning, teachers were faced with stress and anxiety as the sudden implementation of online learning was necessary owing to the physical distancing measures for COVID-19 (Pozo-Rico et al., 2020). The prolonged period of lockdown and social distancing during the pandemic further contributed to

adverse psychological outcomes, including stress, and overall discomfort of teachers (Amri et al., 2020) (Palma-Vasquez et al., 2021).

The education sector has faced a dramatic paradigm shift through digital media, and such a scenario has impacted teaching methodologies and assessment processes (Di Palma & Belfiore, 2020). Even though technology has started affecting teaching methodologies in teaching environments (Chou & Chou, 2021) (Peimani & Kamalipour, 2021), drastically incorporating such technology in teaching methodologies without any transition and training time required to implement the technology to familiarize teaching staff with such technology has resulted in the technology having extreme effects on teaching staff regarding their occupational stress (Li & Wang, 2021). Studies have shown that the success of any technology in the process of implementation requires acceptance and a willingness to adopt the technology from the users (Venkatesh et al., 2003)

It has not only revealed, but also heightened the inequality that already prevails in the sector of education, within India. The closure of schools resulted in lost learning benefits to millions of learning students and exacerbated challenges faced by teachers in schools, especially in rural and semi-urban areas where connectivity to fast stable

internet, computers, and electricity is still erratic (Kar et al., 2021). For teachers, challenges included sustaining student engagement, carrying out evaluations, and enabling collaboration in online learning settings (KS & A, 2024). Additionally, many teachers had to spend their personal resources in supplying fast stable internet connectivity, computers, in addition to other equipment, adding to their stress.

Technostress has become a major issue in the field of education in this particular environment. According to Brod (1984) (Vermila, 2025), technostress is a type of adaptation syndrome due to ineffectiveness in properly utilizing computer technology. Technostress is described as the adverse effects of technology upon human behaviour, emotions, along with physiological systems. Over the years, Technostress is widely recognised as a sort of discomfort and stress resulting from the implementation of information technology, which affects people's mental, physical, and behavioural health (Berger et al., 2016). Technostress develops in response to an increase in the demands placed on educators, connectivity, boundary management, and fear of competence in the use of technology.

The worldwide pandemic precipitated an unparalleled crisis in the educational system, affecting over 1.6 billion pupils and leading to significant alterations in teaching techniques. (Pokhrel & Chhetri, 2021). Teachers, the backbone of the education system, encountered two major difficulties adjusting to online teaching in closed institutions and coping with the shift to offline classrooms while being subjected to constantly changing guidelines and increasing demands related to academic performance (Kumawat, 2020) (Gillani et al., 2022). These trends further escalated and exacerbated other pre-existing challenges in the profession, leading to severe burnout symptoms among educators. Burnout has been described as a unique psychological condition that is associated with occupational stress, and since it is measured by emotion as manifested by exhaustion, by cognition as manifested by cynicism, and by efficacy, (Maslach et al., 1997) (VandenBos, 2018).

The teaching fraternity, which has always remained under high levels of stress due to big classes, low salaries, and erratic policies, has found these issues accentuated during this epidemic period (Pressley et al., 2024) (Podolsky et al., 2016). In states like Odisha, where there is a huge gap in the education infrastructure available in urban, rural, and tribal areas

Teachers' struggles with technostress and other aspects of digital instruction need serious consideration. The effect of these problems on educators' emotional health in the post-Covid period is an important topic. This present research investigates the digital teaching challenges and technostress of post-Covid teachers. The following main issue provides the basis for this research work:

Digital education has gained significant importance in India pursuit of becoming a knowledge-driven economy, particularly during Covid-19 pandemic, which disrupted conventional educational activities nationwide. The lockdown of educational institutions during the pandemic and the swift transition to digital methods for teaching,

and despite multiple challenges, this period was perceived by many as an opportunity for educational transformation (Mahapatra, 2020). However, in states like Odisha, digital education is largely underserved due to socio-economic disparities in addition to infrastructure in government schools. However, in states like Odisha, e-learning has still been an unserved or underserved sector, thanks to socio-economic disparities. The lockdown of educational institutions during the Corona pandemic and the swift transition to online teaching methodologies has profoundly affected the educational system in Odisha (Sahoo & Rana, 2023).

In response, the government has promoted different digital modes of teaching as a part of e-learning, though this is still faced by issues related to limited internet access, inadequate support systems, poor tele density, and insufficient computer literacy. Power interruptions, budgetary limitations, and parental disengagement are among other issues that hinder the advancement of digital education.

The COVID-19 pandemic has accelerated the shift to emergency remote instruction, so transforming the role of educators and increasing their workload, while simultaneously imparting technostress into the profession. A study conducted among school teachers in Delhi (Deepali Sharma, 2025) investigated the post-COVID implications of digital teaching workloads and stress related to them. Using frameworks of burnout and job demands/resources, it was observed how constantly connected teaching, teaching reform, administrative overload, and information saturation contributed to emotional exhaustion and rejected job satisfaction among teachers.

Workload demands are one of the variables that have been shown to influence teacher stress within Odisha, according to previous study, institutional support, class size, and organizational characteristics (Dodanwala & Santoso, 2022) (Teles et al., 2020). In addition, institutional

variations in resource availability, together with staff diversity, also contribute considerably to stress levels. Recognizing these factors is essential for developing effective stress management strategies aimed at enhancing educator well-being and improving the educational environment. (KS & A, 2024) revealed higher stress levels in private universities. The statistical analysis proved the existence of significant links among levels of stress and several sources.

The pandemic further constituted a public health emergency around the globe, which has seriously impacted the education system, especially in the Indian state of Odisha. (Nayak & Das, 2022) analyzed how COVID-19 has impacted elementary education in Odisha, including how the government has responded to ensure that there is continuity in education.

Technostress is a new emerging issue in this technological shift. A PRISMA-validated review of 52 studies conducted from 2019 to 2021 identified major sources of teacher technostress, and strategies used to cope with them in online teaching sessions (Net, 2022). Major sources of technology usage affecting the psychological

level of teachers were validated in the study, and the need for proactive initiatives to deal with technostress was also accepted in a technologically enabled teaching environment.

#### Objectives

To examine the effect of digital teaching challenges on teachers' technostress in the post-COVID context in Odisha.

To analyse the impact of technostress on teachers' mental well-being (post-COVID) in Odisha.

To test the mediating role of technostress in the relationship between digital teaching challenges and teachers' mental well-being.

#### Hypothesis Development

##### **Digital teaching challenges effect on teachers' technostress**

The rapid incorporation of digital technology within education during and subsequent to COVID-19 crisis has presented educators with various digital learning challenges, which has increased technostress among educators. A systematic review conducted to establish the relationship of technostress among educators in the post-COVID learning environment has shown excess digital workload, technology, imbalance between work and life, and lack of organizational support as core elements of technostress (Vermila, Ayu, 2025). This systematic review underlined the effects of training and the differences among educators concerning their

ability and efficacy in technology. (Pace et al., 2022) found evidence of a negative correlation between technostress and work satisfaction, with the impression of meaningfulness mediating this link. In order to create treatments for new ways of teaching that highlight the protective effect of meaningful work and coping mechanisms, it is crucial to understand these dynamics. (Wahab & Mahat, 2022) There was also significant levels of technostress indicated by Malaysian secondary school teachers ( $M=3.670$ ,  $SD=4.30$ ) during the pandemic, driven by teaching-learning demands, technical issues, and professional challenges, regardless of gender or location differences.

Further evidence suggests that technical difficulties and digitally supported teaching processes are major determinants of technostress and the intention to leave the teaching domain. Computer self-efficacy had a negative correlation with technostress, underscoring the need of to be an intervention within this domain. (Siddiqui, 2023). Collectively, these studies suggest that digital teaching challenges play a critical role in elevating technostress among teachers. Based on the reviewed literature, the following hypothesis is proposed:

H1: Digital teaching challenges have a significant positive effect on teachers' technostress.

Technostress effect on teachers' mental well-being

The correlation between technostress and the psychological health of educators is receiving more and more research interest due to the extensive use of digital technologies in educational settings. Research on primary school teachers' digital abilities and technostress found a favorable correlation with professional well-being and a strong negative correlation with technostress (Education & Marjan, 2026). These findings give one indication that technostress alone cannot predict well-being in all situations but interacts with personal capabilities and environmental factors. (Shaukat et al., 2022) studied the connection between teacher educators' levels of life satisfaction, work-family conflict, and technostress during the COVID-19 epidemic and found a positive association between the two variables ( $r = 0.381$  and  $0.449$ , respectively).

Technostress is a prevalent issue among teachers struggling to adapt to new digital technologies, affecting their productivity and well-being within technology-enhanced higher education. (Shi & Ismail, 2025) revealed a complex relationship between teacher well-being, productivity, and technostress. The findings contribute to effectively improving productivity in technologically advanced settings, Future research is recommended to comprehensively investigate the impact of technostress upon teacher well-being and productivity. Similarly, a

study performed by (Pace et al., 2022), found that due to constant exposure to new and advanced technology, individuals feel powerless and insecure, resulting in chronic stress and emotional exhaustion, which finally results in burnout. Moreover, (Yener et al., 2021) suggested that teacher burnout and technostress can be overcome because of a few moderating factors, which emphasize the importance of support factors experienced by teachers. In addition to mental exhaustion, constant exposure to technology can also have negative consequences on teachers' physical well-being, influencing disorders such as eye strain and muscular strain, as mentioned in a study carried out by (Kraemer et al., 2020). Therefore, the following hypothesis has been developed:

H2: Technostress has a significant negative effect on teachers' mental well-being.

Technostress mediates the relationship between digital teaching challenges and teachers' mental well-being

Recent study indicated that technostress might play the role of mediation in linking issues related to online teaching to mental health outcomes for teachers. Research carried out on Italian school-teachers during an online transition indicated that technostress influenced work pleasure negatively, this association being mediated by meaningfulness of working (Pace et al., 2022). This is an illustration of the indirect impact that digital demands have on psychological outcomes.

A careful analysis among 54 research articles found a clear point where the research on technostress suddenly flooded in 2018, including the time period during the COVID-19 era. It is aimed at discovering opinions on the impacts of technology, the working environment, as well as personal opinions on teachers' emotions and work efficiency. (Yang et al., 2025). Results obtained by

research on empirical evidence support a negative association between technostress and psychological opinions on wellbeing with significant negative correlations on dimensions like autonomy, acceptance, and social connections (Estrada-araoz et al., 2023). Moreover, research on mediating and moderating roles further confirmed the observed fact that technostress is a strong mediator for opinions on technology use concerning the dimension of work satisfaction. Intentions for using Information & Communication Technologies serve as a moderate variable for the association (Toscano et al., 2024). The evidence supports the construct of the explanatory variable of technostress by which the challenges of digital teaching affect the mental wellbeing of the teacher. Informed by the examined literature, a following hypothesis is posited:

H3: Technostress significantly mediates the relationship between digital teaching challenges and teachers' mental well-being.

#### Research Gap

Although there is an increasing number of studies on digital teaching, technostress, and mental well-being conducted post-COVID, important gaps persist. Existing studies primarily conducted in either an urban or technically advanced area, and there is little empirical research based in digitally underserved areas such as Odisha. In addition, most research examines either on challenges in digital teaching, technostress, mental well-being, or their combinations, and there is no study that tests and validates a mediator concept jointly and simultaneously within a single research framework. Contextual issues unique to Odisha such as infrastructural constraints, digital skill gaps, and limited institutional support remain insufficiently explored. Addressing these deficiencies would enhance the contextual comprehension of teachers' mental well-being within post-pandemic digital educational settings.

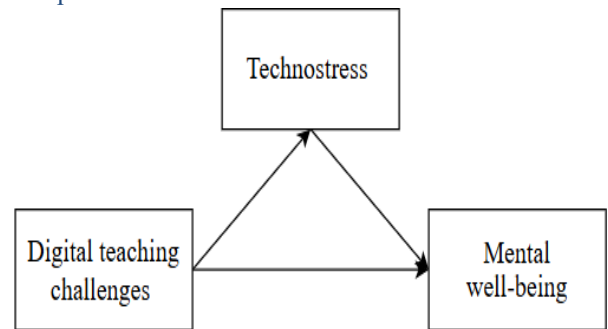
## RESEARCH METHODOLOGY

### Research Design

The research used a quantitative methodology to systematically examine the challenges of digital education, technostress, and the post-Covid mental wellness of teachers in Odisha. A systematic methodology is used to collect and evaluate information gathered regarding an accurate representation of 384 school teachers selected from government along with private educational institutions throughout Odisha, ensuring statistical validity and reliability. Primary data were gathered using a standardised questionnaire employing five-point Likert scale questions to assess critical variables, including Technostress, Digital Teaching Challenges, and Mental Well-being. The participants were tutors who had past experience in either Internet-supported or technology-supported teaching before as well as after the pandemic outbreak. The data was analysed using AMOS computer software in order to complete the analysis procedure of the SEM approach. Different statistics measures including Descriptive Statistics, Reliability Analysis, Regression Analysis, Composite Reliability along with Average Variance Extracted, used

to assess the hypotheses formulated on the connection between the relevant factors.

### Conceptual Framework



**Figure 1 Conceptual Frame work**

### Sample Selection

An overall number of 384 people were polled in the research to confirm the validity of the statistical analysis. The respondents were recruited from both government and private schools in Odisha by adopting a random stratified sampling approach. In the stratified random sampling process, the participants were stratified on the basis of organization size, adaptation of digital marketing, and geographical divisions to ensure the proper inclusion of teachers who had varied degrees of expertise within the digital learning environment the combination of during and subsequent to the COVID-19 pandemic.

### Data Collection

Quantitative research methods have been employed in this research study where organized methods for acquiring data have been employed for the purpose of acquiring accurate results. In this respect, to measure attitudes on Technostress, Digital Teaching Challenges, alongwith Mental Well-being, primary data were obtained by a structured questionnaire with statements using Likert scale questions with five possible responses (strongly disagree to strongly agree). Through Google Forms and email, the survey was disseminated. We further examined secondary data from sources such as government reports, published research, alongwith institutional records to substantiate and validate the primary findings.

### Measures

The data was gathered with a standardised questionnaire. A questionnaire with five Likert-scale options has been created to gather data from participants. (from "strongly disagree" to "strongly agree"). Only items with predetermined answers were included in the survey

Questions have been meticulously designed to elicit significant information on specified study factors. The specifications of the variables employed during the analysis are provided below.

### Variables Technostress

Technostress is a psychological and occupational reaction to the demands, alterations, and pressures created by digital technology use occurring when technology demands outweigh available personal or time resources (Cao et al., 2025). From the point of view of the educational process, technostress is a complicated and

very heterogeneous phenomenon encompassing both inner and outer aspects accompanied by emotions and professional features, as well as technological ones related to the use of informational and communication technology. (Merwe & Klinck, 2025).

#### Digital Teaching Challenges

The digital teaching challenges can be referred to as challenges that are encountered by tutors or lecturers in delivering or imparting knowledge of teaching through digital channels or platforms. It may be basic challenges such as poorly digitized infrastructure, always unstable internet connection, unavailability and lack of accessibility to equipment and tools, lack of training, increasing workload, and maintaining student engagement and assessment in online or distance learning environments. The rise in online or digital teaching even after and during the COVID-19 pandemic further added to such challenges, particularly in less-developed institutions (Deepali Sharma, 2025).

#### Mental Well-being

Mental wellness can generally be impacted by occupational-related stress and burnout, including high-level occupations like education. Burnout is commonly known to be secondary emotional exhaustion characterized by a lack of occupational efficacy. Recently, it has been identified by the World Health Organisation as an aftermath of occupational stress (Punia & Rajan, 2024).

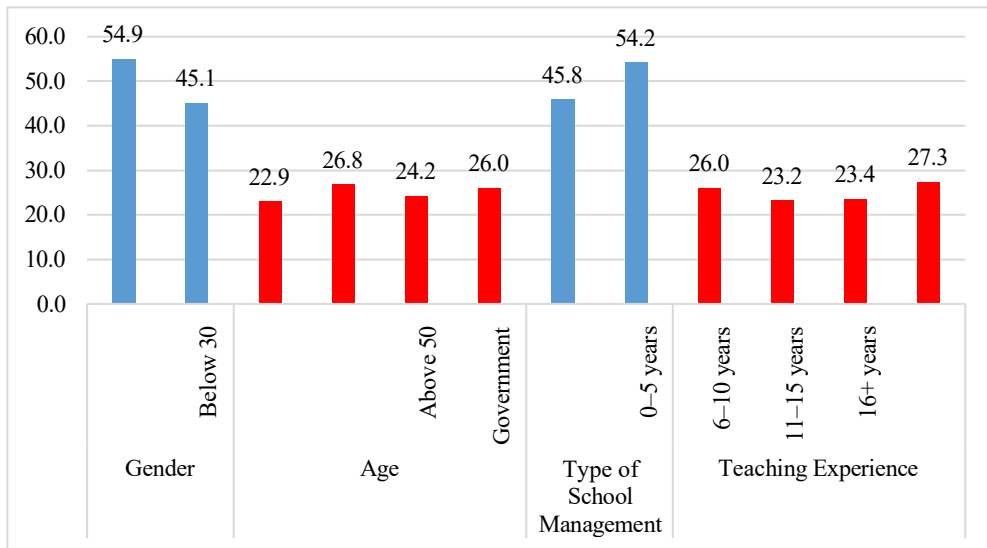
#### Results

This study offers empirical evidence on the connection among Technostress, Digital Teaching Difficulties, and Mental Health in Odisha after COVID-19. This research work utilizes the Descriptive Statistics method, Reliability & Validity Test, and the Structural Equation Model

in identifying various hypotheses associated with this research work. The result of this research work is helpful in carrying out the examination of various aspects associated with the variables of immense importance to this research work. This research work is conducted on 384 schoolteachers of Odisha, all of whom were engaged in digital teaching in Govt., as well as in Private Schools of Odisha.

**Table 1 Demographic Variables**

| Variable                  | Groups      | Frequency | Percent |
|---------------------------|-------------|-----------|---------|
| Gender                    | Male        | 211       | 54.9    |
|                           | Female      | 173       | 45.1    |
|                           | Total       | 384       | 100.0   |
| Age                       | Below 30    | 88        | 22.9    |
|                           | 31–40       | 103       | 26.8    |
|                           | 41–50       | 93        | 24.2    |
|                           | Above 50    | 100       | 26.0    |
|                           | Total       | 384       | 100.0   |
| Type of School Management | Government  | 176       | 45.8    |
|                           | Private     | 208       | 54.2    |
|                           | Total       | 384       | 100.0   |
| Teaching Experience       | 0–5 years   | 100       | 26.0    |
|                           | 6–10 years  | 89        | 23.2    |
|                           | 11–15 years | 90        | 23.4    |
|                           | 16+ years   | 105       | 27.3    |
|                           | Total       | 384       | 100.0   |



The demographic factors of 384 instructors reflect a slightly better representation of male teaching staff (211; 54.9%) than female teaching staff (173; 45.1%). The representation is almost equally balanced for different age groups, with the highest percentages constituting individuals aged 31-40 years (103; 26.8%), followed by more than 50 years (100; 26.0%) and

41-50 years (93; 24.2%) and less than 30 years (88; 22.9%), which reflects a balanced representation of both

junior and senior teachers. For school administration, a slightly better representation of respondents is observed to be from private (208; 54.2%) than governmental schools (176; 45.8%). Teaching experience was also evenly spread, with the highest proportion having 16+ years of experience (105; 27.3%), followed by 0-5 years (100; 26.0%), 11-15 years

(90; 23.4%), and 6-10 years (89; 23.2%), indicating that the sample included teachers from early-career to highly experienced groups.

**Table 2 Mean and Correlation Table**

| Variables                   | Mean   | Digital teaching challenges | Technostress | Mental well being |
|-----------------------------|--------|-----------------------------|--------------|-------------------|
| Digital teaching challenges | 3.7014 | 1                           | .623**       | .602**            |
| Technostress                | 3.671  | .623**                      | 1            | .604**            |
| Mental well being           | 3.6424 | .602**                      | .604**       | 1                 |

The average scores suggest that educators indicated considerable digital teaching problems (M

= 3.7014) along with technostress (M = 3.671), accompanied with a reasonable degree of mental health (M = 3.6424). The correlation results show strong and statistically significant positive relationships among all constructs: Digital teaching problems have a positive correlation with technostress ( $r = .623, p < .01$ ) along with mental well-being ( $r = .602, p <$

.01), whereas technostress is similarly strongly correlated with mental well-being ( $r = .604, p$

$< .01$ ). The results indicate a correlation between increased digital teaching problems and elevated levels of technostress and are also significantly associated with teachers reported mental well-being, and technostress is similarly related to mental well-being.

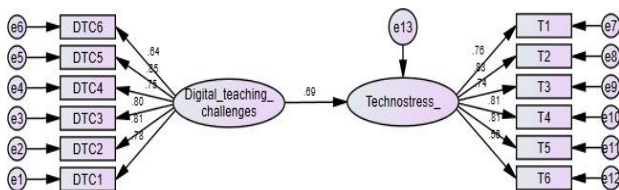
**Table 3 Reliability validity test**

| Variables                   | AVE    | CR          |
|-----------------------------|--------|-------------|
| Digital teaching challenges | 0.7703 | 0.884698916 |
| Technostress                | 0.7517 | 0.879599164 |

|                   |        |             |
|-------------------|--------|-------------|
| Mental well being | 0.7663 | 0.883632543 |
|-------------------|--------|-------------|

The reliability and validity results indicate strong measurement quality for all three constructs. The Average Variance Extracted (AVE) values for Digital Teaching Challenges (0.7703), Technostress (0.7517), and Mental Well-Being (0.7663) All values significantly above the required threshold of 0.50, hence affirming robust convergent validity. The Composite Reliability (CR) values have risen for all variables. Challenges in Digital Instruction (0.8847), Technostress (0.8796), and Mental Well-Being (0.8836) exceeding the acceptable benchmark of 0.70, which demonstrates strong internal consistency Along with reliability of the measurement scales.

H01: Digital teaching challenges have no significant effect on teachers’ technostress. H1: Digital teaching challenges have a significant positive effect on teachers’ technostress



**Table 4 Regression Weights: (Group number 1 - Default model)**

| Path | Estimate | S.E. | C.R. | P |
|------|----------|------|------|---|
|------|----------|------|------|---|

**Table 5 Model fit summary**

| Variable | Chi-square value ( $\chi^2$ ) | Degrees of freedom (df) | CMIN/ DF | P value | GFI   | RFI   | NFI   | IFI   | CFI   | RM R  | RMS EA |
|----------|-------------------------------|-------------------------|----------|---------|-------|-------|-------|-------|-------|-------|--------|
| Value    | 73.795                        | 53                      | 1.392    | 0.031   | 0.968 | 0.966 | 0.972 | 0.992 | 0.992 | 0.023 | 0.032  |

The model is in good shape, as shown by the important fit indices, which are all more than the required threshold of 0.90:  $\chi^2 = 73.795$ , GFI = 0.968, RFI = 0.966, NFI = 0.972, IFI = 0.992,

and CFI = 0.992. Within the acceptable range, we see an RMR of 0.023 and an RMSEA of

0.032. A CMIN/DF ratio of 1.392 indicates a good fit between the model and the data. Even if the p-value of the model (0.000) falls outside of the statistically significant range, it is still within acceptable bounds. All things

**Table 6 Regression Weights: (Group number 1 - Default model)**

|   |       |       |        |    |
|---|-------|-------|--------|----|
| Techn <- Digital ostress -- teaching challenges | .6929 | .0596 | 11.496 | ** |
|---|-------|-------|--------|----|

Technostress and digital teaching concerns are shown to be interdependent variables in the table, which illustrates the findings using a hypothetical structural equation model. Using problems with digital instruction as the independent variable, this approach uses technostress as the dependent variable. Technostress and issues with digital education are significantly and positively correlated, according to the study's conclusions ( $\beta = .692$ ,  $P < 0.05$ ).

Technostress is positively associated with digital teaching problems (standardised coefficient

= 0.692) as shown by the path linking the two variables. The identified relationships are statistically significant, shown by the significant correlation coefficient values (C.R. values). If the p-values exhibit statistical significance, then (given in Table), all of the components indicate that the model was well-fitting. Consequently, the fit indices support this conclusion. A positive and mathematically significant association between Technostress as well as The total model fit was evaluated using seven different fit indices, which revealed digital teaching difficulties.

considered, these results provide credibility to the model's capacity to reliably and validly reflect the sample data.

H02: Technostress has no significant effect on teachers’ mental well-being.

**H2: Technostress has a significant negative effect on teachers’ mental well-being.**

| Path                                | Estimate | S.E. | C.R.   | P   |
|-------------------------------------|----------|------|--------|-----|
| Mental well being <--- Technostress | .690     | .064 | 11.323 | *** |

The table displays a hypothetical structural equation model that shows the interdependence among Technostress and Mental Well-Being. Psychological well-being is the dependent variable in the present model, with technostress serving as the independent variable. The results show that there is a positive and statistically significant correlation between technostress and psychological well-being. ( $\beta=.690$ ,  $P<0.05$ ).

A positive connection among Technostress along with Mental well-being is shown by the standardised coefficient of 0.690, as illustrated in the path connecting both of these variables. Given the relatively large C.R. values, it seems that the variables are significantly related to

one another. Table shows that the factors had p-values  $> 0.05$ , indicating statistical significance. Therefore, the fit indices imply that the model was well-fit. A favourable and statistically significant association was found among Technostress along with Mental well-being, as assessed by seven independent fit indices.

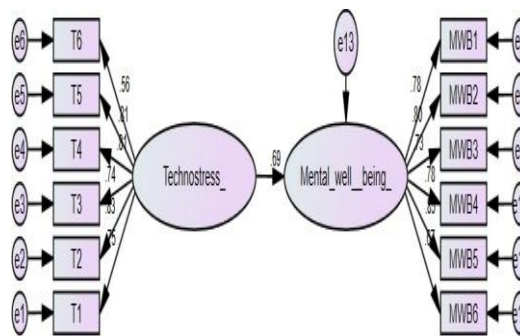


Table 7 Model fit summary

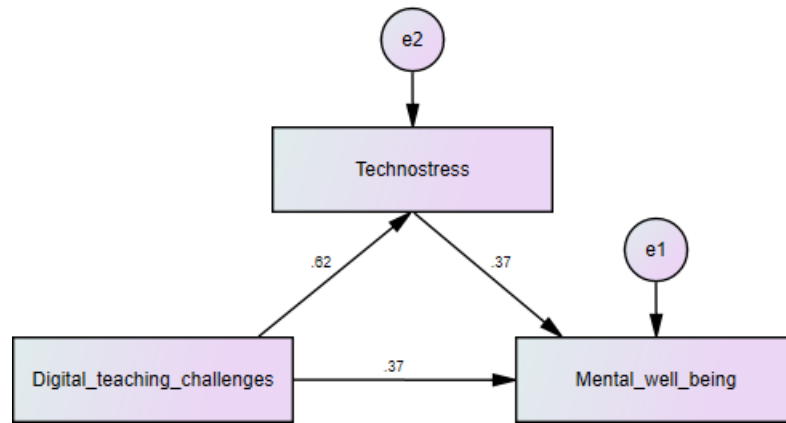
| Variable | Chi-square value( $\chi^2$ ) | Degre es of freedo m (df) | CMIN/ DF | P value | GFI  | RFI  | NFI  | IFI  | CFI  | RM R | RMSE A |
|----------|------------------------------|---------------------------|----------|---------|------|------|------|------|------|------|--------|
| Value    | 114.087                      | 53                        | 2.153    | .000    | .931 | .947 | .957 | .977 | .977 | .029 | .055   |

The model indicates good fit, above the necessary threshold of 0.90, according to key fit indices ( $\chi^2 = 114.087$ ,  $GFI = 0.931$ ,  $RFI = 0.947$ ,  $NFI = 0.957$ ,  $IFI = 0.977$ , and  $CFI = 0.977$ ). An RMR

of 0.029 along with with RMSEA of 0.055 are within the permissible range. With a CMIN/DF ratio of 2.153, the model fits well. Despite the fact that the model's p-value (0.000) falls outside of the statistically significant range, it is still within acceptable bounds. All things considered, these results provide credibility to the model's capacity to reliably and validly reflect the sample data.

H03: Technostress does not mediate the relationship between digital teaching challenges and teachers' mental well-being.

**H3: Technostress significantly mediates the relationship between digital teaching challenges and teachers' mental well-being**



**Table 8 Regression Weights: (Group number 1 - Default model)**

| Path   | Estimate | S.E. | C.R.   | P   |
|--|----------|------|--------|-----|
| Technostress <--- Digital teaching challenges      | .623     | .039 | 15.600 | *** |
| Mental well being <--- Digital teaching challenges | .369     | .050 | 7.590  | *** |
| Mental well being <--- Technostress                | .374     | .052 | 7.707  | *** |

**Table 9 Standardized Direct Effects (Group number 1 - Default model)**

|                   | Digital teaching challenges | Technostress |
|-------------------|-----------------------------|--------------|
| Technostress      | .623                        | .000         |
| Mental well being | .369                        | .374         |

**Table 10 Standardized Indirect Effects (Group number 1 - Default model)**

|                   | Digital teaching challenges | Technostress |
|-------------------|-----------------------------|--------------|
| Technostress      | .000                        | .000         |
| Mental well being | .233                        | .000         |

The regression results show that digital teaching challenges significantly increase technostress among teachers (Estimate = 0.623, C.R. = 15.600,  $p < 0.001$ ). Digital teaching difficulties significantly enhance teacher mental well-being (Estimate = 0.369, C.R. = 7.590,  $p < 0.001$ ). Moreover, technostress is an excellent predictor of mental well-being (Estimate = 0.374, C.R.

= 7.707,  $p < 0.001$ ). The direct effects are also verified by the standardized effects, where digital teaching challenges on the technostress ( $\beta = 0.623$ ) and mental well-being ( $\beta = 0.369$ ), and the effect of technostress on the mental well-being ( $\beta = 0.374$ ). In addition, the standardized indirect effect on the mental well-being, through the technostress, is 0.233. This provides the

effect of the mediating factor of the technostress on the effect of the digital teaching challenges on the mental well-being of teachers.

## DISCUSSION

Investigating the relationship between technostress and post-Covid psychological well-being among Odisha teachers, this study sought to understand the significance of difficulties associated with digital teaching approaches. According to the results, teachers have ongoing challenges while teaching online because of the slow progress in educational technology, administrative duties, change in platforms continuously, inadequate training sessions, and achieving educational results through technology, technostress gets incremented. The results supported that technology in educational environments is correlated to technology along with psychological and occupational challenges faced by teachers in handling technology.

The results indicate a substantial association among technostress along with mental well-being among educators in the post-COVID-19 context. The correlation revealed that apart from the various factors surrounding technology, it demands endless connectivity, adaptability, digital communication, and the lack of barriers for work and life certain factors surrounding these aspects are bound to influence mental well-being among the teaching fraternity. Conversely, it can also depend upon the mental well-being level via positive mental well-being or enhanced distress among members of the teaching fraternity.

Importantly, the study confirms that technostress acts as a mechanism linking digital teaching challenges to mental well-being. This means that digital challenges affect well-being not only directly through workload and role pressure, but also indirectly by increasing technology-related stress. Overall, the discussion underscores the need for supportive policies and school-level interventions in Odisha, including ongoing digital training, reliable technical assistance, realistic workload planning, and mental health support for teachers, to ensure healthier and more sustainable post-COVID teaching environments

## CONCLUSION

In conclusion, the SEM results for teachers in Odisha confirm that digital teaching challenges significantly increase technostress, as the path from digital teaching

challenges to technostress is strong and significant (Estimate/ $\beta = 0.623$ , S.E. = 0.039, C.R. = 15.600,  $p < 0.001$ ), hence H01 is rejected and H1 is accepted. The model also shows that technostress significantly affects teachers' mental well-being (Estimate/ $\beta = 0.374$ , S.E. = 0.052, C.R. = 7.707,  $p < 0.001$ ), so H02 is rejected; however, because the effect is positive (not negative as proposed), the hypothesized direction in H2 is not supported. Additionally, digital teaching challenges directly influence mental well-being (Estimate/ $\beta = 0.369$ , S.E. = 0.050, C.R. = 7.590,  $p < 0.001$ ), indicating a significant direct pathway beyond technostress. Most importantly, mediation is supported because the standardized indirect effect of digital teaching challenges on mental well-being through technostress is 0.233, confirming a meaningful indirect pathway; therefore, H03 is rejected and H3 is accepted. Overall, the findings establish that post-COVID digital teaching demands shape teachers' mental well-being both directly and indirectly via technostress, highlighting technostress as a key mechanism that should be addressed through training, technical support, and workload management

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