EXPLORING THE RELATIONSHIP BETWEEN TECHNOSTRESS AND PSYCHOLOGICAL WELL-BEING IN BASIC EDUCATION TEACHERS: A CROSS-SECTIONAL STUDY

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ABSTRACT

Objective: In the current digital age, teachers face additional challenges due to the constant use of technology in their work. Although technology has provided numerous educational opportunities and tools, it has also resulted in a new form of stress known as technostress. In this sense, the objective of the present investigation was to determine if technostress is significantly related to psychological well-being of basic education teachers.

Method: The research approach was quantitative; the design was non-experimental and the type corresponded to a descriptive-correlation study of transverse cutting. The sample was made up of 169 basic education teachers who were given the Technostress Questionnaire and the Psychological Well-being Scale for Adults, instruments with adequate levels of content validity and reliability.

Results: Preliminary, it was found that teachers were characterized by presenting low levels of technostress and high levels of psychological well-being. In addition, it was determined that Pearson correlation coefficient between both variables was -0.465 (p<0.05). Inverse and significant correlations were also observed between the technostress and acceptance (r=-0.442, p<0.05), autonomy (r=-0.474, p<0.05), connections (r=-0.411, p<0.05) and projects (r=-0.452, p<0.05). Similarly, it was found that there were reverse and significant correlations between psychological well-being and skepticism (r=-0.440, p<0.05), fatigue (r=-0.461, p<0.05), anxiety (r=-0.441, p<0.05) and inefficacy (r=-0.417, p<0.05).

Conclusions: There is an inverse and significant relationship between technostress and psychological well-being of basic education teachers. Therefore, it is recommended to promote healthy practices in the use of technology, such as practicing digital disconnection, promoting self-care and promoting conscious and balanced use of technology, to protect and improve the psychological well-being of teachers.

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EXPLORANDO A RELAÇÃO ENTRE O TECHNOSTRESS E O BEM-ESTAR PSICOLÓGICO EM PROFESSORES DA EDUCAÇÃO BÁSICA: UM ESTUDO TRANSVERSAL

RESUMO

Objetivo: Na era digital atual, os professores enfrentam desafios adicionais devido ao uso constante da tecnologia em seu trabalho. Embora a tecnologia tenha proporcionado inúmeras oportunidades e ferramentas educacionais, ela também resultou em uma nova forma de estresse conhecida como technostress. Nesse sentido, o objetivo da presente investigação foi determinar se o technostress está significativamente relacionado ao bem-estar psicológico dos professores da educação básica.

Método: A abordagem de pesquisa foi quantitativa; o desenho foi não experimental e o tipo correspondeu a um estudo descritivo-correlacional de corte transversal. A amostra foi composta por 169 professores da educação básica, aos quais foram aplicados o Questionário de Technostress e a Escala de Bem-estar Psicológico para Adultos, instrumentos com níveis adequados de validade de conteúdo e confiabilidade.

Resultados: Preliminarmente, constatou-se que os professores se caracterizavam por apresentar baixos níveis de technostress e altos níveis de bem-estar psicológico. Além disso, verificou-se que o coeficiente de correlação de Pearson entre ambas as variáveis foi de -0,465 (p<0,05). Correlações inversas e significativas também foram observadas entre o technostress e a aceitação (r= -0,442, p<0,05), autonomia (r= -0,474, p<0,05), conexões (r= -0,411, p<0,05) e projetos (r= -0,452, p<0,05). Da mesma forma, constatou-se que existiam correlações inversas e significativas entre o bem-estar psicológico e o ceticismo (r= -0,440, p<0,05), fadiga (r= -0,461, p<0,05), ansiedade (r= -0,441, p<0,05) e ineficácia (r= -0,417, p<0,05).

Conclusões: Existe uma relação inversa e significativa entre o technostress e o bem-estar psicológico dos professores da educação básica. Portanto, recomenda-se promover práticas saudáveis no uso da tecnologia, como praticar a desconexão digital, promover o autocuidado e incentivar o uso consciente e equilibrado da tecnologia, para proteger e melhorar o bem-estar psicológico dos professores.

Palavras-chave: technostress, bem-estar psicológico, saúde mental, professores, educação básica, aulas presenciais.

1 INTRODUCTION

In the current digital era, information and communication technologies (ICT) have acquired a fundamental role in the educational context (Estrada & Gallegos, 2022). However, this incorporation of ICT also raises significant challenges for teachers in their pedagogical work. Despite the advantages and opportunities provided by technology in
the educational field, it is important to highlight that it has also resulted in a new form of stress known as technostress (Abarca et al., 2022).

Technostress is a term introduced by Brod (1984), who defined it as a condition resulting from an individual inability to adapt healthy to the use of ICT, which is modulated according to personal characteristics and affects people's performance. Likewise, Salanova (2003) conceptualized technostress as a negative psychological state associated with the use of ICT or a threat to use in the future. This concept would be conditioned by the perception of a mismatch between demands and resources related to the use of ICT that leads to a high level of unpleasant psychophysiological activation and the development of negative attitudes towards its use. In general, the exposed definitions include the adverse effects caused by technology on the attitudes, thoughts, behaviors and physiology of people (Penado et al., 2021). In this sense, psychosomatic consequences were identified, such as sleep problems, headaches, muscle aches and gastrointestinal disorders and burnout (Estrada et al., 2020).

There are mainly five precursor conditions of the technostress, known as technocreators, to which teachers can be exposed (Jena, 2015). These conditions are: techno-overload, techno-invasion, techno-complexity, techno-insecurity and techno-incertitude. Techno-overload refers to the need to process information of multiple tasks simultaneously using technological devices. On the other hand, techno-invasion occurs when technology invades personal life and privacy, generating the constant need to be connected anywhere and at all times. Techno-complexity is defined as the complexity associated with the use of ICT, which implies spending time and effort to learn how to use them effectively. For its part, techno-insecurity is the feeling that technology threatens job stability and maintenance of employment. Finally, techno-incertitude is a stressful factor derived from the constant updates and changes in ICT, which makes it difficult for users to develop a solid basis of experience and domain in its use.

As for prevention and intervention strategies, it is possible to identify different categories. Primary prevention focuses on increasing the knowledge of affected individuals, who must focus on preventive aspects to avoid technostress. On the other hand, secondary intervention is applied when there is already evidence or symptoms of technostress, and is carried out by direct tutorials made by specialists. Finally, the tertiary strategy is implemented when technostress manifests itself aggressively and with all its
consequences, which requires providing psychological and medical support to face it effectively (Salanova et al., 2011).

Previous research has identified additional factors that can contribute to higher levels of technostress among teachers. These factors include the knowledge of the technological pedagogical content (TPACK), self-efficacy, experience with organizational technology and culture (Chou & Chou, 2021). Other research has also pointed out that the TPACK model is presented as a fundamental guide to guide teachers in the integration of new technologies into teaching processes (Khlaif et al., 2023).

Once the nature and triggers of the technostress have been understood, it is crucial to explore its impact on the psychological well-being of teachers. In recent decades, psychological well-being has been a fairly investigated variable, since it goes beyond the self-perception of a person's life and the ability to predict mental health and serve as a resource to face stress (Barrantes & Ureña, 2015). In addition, it has been related to happiness, healthy interactions, physical well-being and quality of life (Carranza et al., 2017).

Psychological well-being refers to the perception that people have and is built through a set of experiences, whether positive or negative, and includes quality in interpersonal relationships, as well as the disposition of sources of support (Narváez et al., 2021). Then, a person who presents favorable levels of psychological well-being can perform properly in the personal, family, academic and social context (Estrada et al., 2023).

Psychological well-being has been addressed from two perspectives: hedonic and eudaemonic (Alós et al., 2021). From the hedonic perspective, it focuses on pleasure and happiness. In other words, the balance between pleasant and non-pleasant experiences, as well as in satisfaction with life (Cassaretto & Martínez, 2017). On the other hand, from an eudaemonic perspective, psychological well-being is considered the degree to which people are working fully (Meléndez et al., 2018). Although there are differences between these two perspectives, they are currently considered complementary (Keyes et al., 2002).

Based on the above, Ryff & Keyes (1995) proposed a multidimensional model of psychological well-being that covers six key dimensions. These dimensions are self-acceptance, positive relationships, autonomy, environmental domain, propose in life and personal growth.
Self-acceptance refers to having a positive attitude towards oneself and past experiences, recognizing and accepting our own characteristics.

Positive relationships with others involve establishing authentic, warm and satisfactory relationships with other people, worrying about their well-being.

Autonomy is related to the degree to which a person is self-determined and independent.

Environmental domain refers to the ability to handle and control the environment, taking advantage of the opportunities it offers to meet our needs and values.

The purpose in life implies having significant goals and objectives, and feeling that our life has a meaning and purpose.

Personal growth is related to recognizing that, to achieve optimal and positive functioning, it is necessary to develop our individual and potential capacities, seeking to grow as people and achieve our maximum potential.

Previous researches have analyzed the challenges facing teachers in their work environment at different educational levels and that would affect their levels of psychological well-being (Ezcurra et al., 2023; Gonzales et al., 2023). These factors are crucial to address risk reduction and the prevention of burnout. Among the identified factors are interpersonal variables such as emotional expression and regulation, motivation, self-efficacy and teaching commitment (García et al., 2021). In addition, it is also necessary to consider the contextual variables related to the support and collaboration between colleagues, the school work environment, leadership and educational management, as well as the impact of public-school policies (Dávila, 2018).

There are very few researches that sought to know the relationship between technostress and the psychological well-being of teachers. In Pakistan, they evaluated the relationship between technostress and satisfaction with life in university teachers and found that both variables were significantly related. Therefore, it was necessary that psychological guidance be provided to improve the balance between work and family and thus improve their welfare levels (Shaukat et al., 2022). In Sri Lanka they explored the relationship between technostress and the work well-being of public-school teachers and determined that five factors associated with technostress (techno-overload, techno-invasion, techno-complexity, techno-insecurity and techno-uncertainty) were significantly related to the well-being of teachers (Ranathunga & Rathnakara, 2022). In
Turkey they analyzed the relationship between technostress, personal well-being and job satisfaction levels in teachers and reported that the intensive use of technology negatively affected their life and performance, since it increased their workload (Aktan & Toraman, 2022).

At present, the integration of ICT in the educational field has brought both benefits and significant challenges for teachers. As teachers strive to adapt and use ICT in their pedagogical practice, concerns related to the possibility of experiencing technostress, a phenomenon characterized by tension and psychological discomfort derived from the use of technology, arise. Although increasing attention to technostress has been paid and its impact on teachers, there are still little explored aspects in current research.

Therefore, it is necessary to deepen and better understand the underlying mechanisms that link technostress and psychological well-being in teachers. This research aims to address these aspects and contribute to existing knowledge about the relationship between technostress and psychological well-being in teachers. The findings of this study will have practical implications for the promotion of the health and well-being of teachers, as well as for the design of interventions and support programs that effectively address the technostress and promote a healthy and satisfactory work environment for teachers.

In this sense, the objective of the present research was to determine whether the technostress is significantly related to the psychological well-being of basic education teachers.

2 METHODOLOGY

The research approach was quantitative, because it was based on numerical measurement, as well as the use of statistics to determine patterns of behavior of the participants. Regarding the design, it was non-experimental, since the technostress and psychological well-being variables were not intentionally manipulated, they were only observed. As for the type, it was descriptive-correlational and cross-sectional, since the analysis of the characteristics of the variables was developed and was determined if both variables were significantly related and the data collection process was carried out in a single moment, respectively (Hernández & Mendoza, 2018).

The population was constituted by 301 teachers belonging to 7 educational institutions of basic education in Cusco (Peru), while the sample was made up of 169
teachers, an amount that was determined through probabilistic sampling with a 95% confidence level. According to Table 1, there was a greater participation of male teachers (58%), who were from 41 to 64 years old (53.3%) and who work on primary education (39.6%).

Data collection was carried out through a survey, which was made up of 3 sections. In the first, teachers were asked for their informed consent, as well as sociodemographic information (gender, age group and specialty).

In the second section the Technostress Questionnaire (Salanova et al., 2007) was structured, which is made up of 16 Likert type items (never, sometimes, almost always, always and always) and evaluates 4 dimensions: skepticism, fatigue, anxiety and inefficiency. Its psychometric properties were determined in a previous study conducted in the Peruvian context through the procedures for validity of content and reliability (Estrada et al., 2022). In that sense, it was established that the questionnaire had an adequate level of content validity (V of Aiken= 0.885) and reliability (α= 0.899).

In the third section the Psychological Well-being Scale for Adults (Casullo, 2002) adapted to the Peruvian context (Domínguez, 2014) was structured. It consists of 13 items structured in 4 dimensions: acceptance, autonomy, relationships and projects. It can be qualified quantitatively by a 3-point Likert scale ranging from 1 (in disagreement) to 3 (agree). In a previously mentioned study, they established that the questionnaire had an adequate content validity (V of Aiken= 0.899) and reliability (α= 0.736).

Data collection was carried out in the month of April of the year 2023. For this reason, authorization was requested from the management teams of educational institutions. Subsequently, teachers were contacted by applying WhatsApp instant messaging with the purpose of explaining the purpose of the research and sending them to link so that they can access the form created on the Google page. Access to the form
closed when receiving the 169 answers and then consolidated in a database to proceed to their qualification according to the assessment scale.

Regarding the statistical analysis, it occurred descriptively and inferentially. The descriptive analysis was carried out by using figures that were obtained by using SPSS V.25 software. Likewise, Student T test was used to compare the level of technostress and psychological well-being according to gender, age group and school system. On the other hand, the inferential results were obtained through the Pearson correlation coefficient. This statistic was important to determine if the variables were significantly related (p<0.05). Finally, a simple linear regression analysis was performed to assess whether the technostress variable predicted the psychological well-being of teachers.

Regarding ethical considerations, this investigation was carried out in accordance with the ethical principles established in the Helsinki statement and had the support of the Institutional Ethics Committee. It is also important to note that teachers were informed about the purpose and nature of the research and gave their informed consent, guaranteeing the private, confidential, anonymous and voluntary nature of their participation.

3 RESULTS AND DISCUSSION

As shown in Figure 1, 56.2% of the teachers presented low levels of technostress, while 26% showed moderate levels and 17.8% experienced high levels of technostress. Regarding the dimensions, the predominant level in all cases was also low. These findings highlight that approximately one third of the total teachers experienced moderate or high levels of stress related to the use of technology in their work, particularly after the pandemic (COVID-19). The rapid transition to online learning and the greatest dependence of technology during that period could have contributed to these considerable levels of technostress.

Regarding psychological well-being, it was found that 65.7% of teachers had a high level of well-being, 21.3% a moderate level and 13% a low level (Figure 1). It is important to note that most teachers showed a high level of well-being, which is encouraging. However, a considerable percentage of teachers with moderate and low welfare levels was also identified, indicating the need to provide additional support and resources to improve their mental health.
Table 2 compared the technostress according to the gender of the teachers and it was determined that there were statistically significant differences (p<0.05), which indicates of women (M=42.38) presented higher levels of technostress than men (M=36.14). On the other hand, it was found that there were no statistically significant differences regarding psychological well-being according to gender (p>0.05). In other words, gender did not have a statistically relevant effect on psychological well-being levels.

Table 3 compared the technostress according to the age group and it was determined that there were statistically significant differences (p<0.05), which indicates that teachers who were from 41 to 64 years old presented higher levels of technostress than the teachers who were from 21 to 40 years old. On the other hand, it was found that there were no statistically significant differences regarding psychological well-being according to the age group (p>0.05). This means that the age group did not have a statistically relevant effect on psychological well-being levels.
Table 3. Comparison of means of the variables technostress and psychological well-being according to age group

<table>
<thead>
<tr>
<th>Variables</th>
<th>Between 21 and 40 years old</th>
<th>Between 41 and 64 years old</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technostress</td>
<td>37.57</td>
<td>41.55</td>
<td>-4.535</td>
<td>0.026*</td>
</tr>
<tr>
<td>Psychological well-being</td>
<td>31.32</td>
<td>30.86</td>
<td>-3.404</td>
<td>0.102</td>
</tr>
</tbody>
</table>

* Statistically significant differences

When comparing the technostress and psychological well-being according to the specialty, it was determined that there were no statistically significant differences between teachers of Primary School and Secondary School (p>0.05). This means that, in statistical terms, both groups presented similar levels of technostress and psychological well-being (Table 4).

Table 4. Comparison of means of the variables technostress and psychological well-being according to specialty

<table>
<thead>
<tr>
<th>Variables</th>
<th>Primary school</th>
<th>High school</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technostress</td>
<td>36.52</td>
<td>37.73</td>
<td>-5.385</td>
<td>0.077</td>
</tr>
<tr>
<td>Psychological well-being</td>
<td>30.06</td>
<td>29.85</td>
<td>-3.693</td>
<td>0.110</td>
</tr>
</tbody>
</table>

Table 5 shows that Pearson correlation coefficient between the technostress and psychological well-being variables was -0.465 (p<0.05). Inverse and significant correlations were also reported between the technostress and acceptance (r= -0.442, p<0.05), autonomy (r= -0.474, p<0.05), relationships (r= -0.411, p<0.05) and projects (r= -0.452, p<0.05). On the other hand, inverse and significant correlations were found between psychological well-being and skepticism (r= -0.440, p<0.05), fatigue (r= -0.461, p<0.05), anxiety (r= -0.441, p<0.05) and inefficacy (r= -0.417, p<0.05).

Table 5. Correlation matrix between variables and dimensions

<table>
<thead>
<tr>
<th>Variables and dimensions</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Technostress</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Skepticism</td>
<td>0.523*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fatigue</td>
<td>0.514*</td>
<td>0.522*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Anxiety</td>
<td>0.585*</td>
<td>0.539*</td>
<td>0.563*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Inefficacy</td>
<td>0.599*</td>
<td>0.507*</td>
<td>0.552*</td>
<td>0.449*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Psychological well-being</td>
<td>0.465*</td>
<td>0.440*</td>
<td>0.461*</td>
<td>0.441*</td>
<td>0.417*</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Acceptance</td>
<td>0.442*</td>
<td>0.421*</td>
<td>0.433*</td>
<td>0.428*</td>
<td>0.405*</td>
<td>0.565*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Autonomy</td>
<td>0.474*</td>
<td>0.407*</td>
<td>0.428*</td>
<td>0.417*</td>
<td>0.428*</td>
<td>0.538*</td>
<td>0.502*</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Relationships</td>
<td>0.411*</td>
<td>0.415*</td>
<td>0.431*</td>
<td>0.427*</td>
<td>0.432*</td>
<td>0.558*</td>
<td>0.513*</td>
<td>0.503*</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
Table 6 shows the correlation coefficient (R), the determination coefficient (R²), the adjusted determination coefficient, the estimation of the standard error (SE) and the ANOVA value (F). In this sense, it is observed that the coefficient of adjusted determination R² was 0.212, which means that technostress is a variable that explains 21.2% of the total variable of the psychological well-being variable. On the other hand, the value of F was equal to 66.334 (p<0.05), which indicates that there is a significant linear relationship between technostress (predicting variable) and psychological well-being (dependent variable).

** Table 6. Multiple correlation coefficient R, R², adjusted R², standard error, and F-value **

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adjusted R²</th>
<th>SE</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.465*</td>
<td>0.216</td>
<td>0.212</td>
<td>0.143</td>
<td>66.334</td>
<td>0.000*</td>
</tr>
</tbody>
</table>

* a Predictor: (Constant), Technostress.
* b Dependent variable: Psychological well-being.

Table 7 performed the simple linear regression analysis, which included psychological well-being as dependent variable and technostress as an independent or predicting variable. Non-standardized regression coefficients (B), standardized regression coefficients (β) and statistical coefficients related to the predicting variable are observed. In that sense, the β coefficient (0.648) indicates that technostress significantly predicts psychological well-being. On the other hand, it was determined that the T value of the beta regression coefficient of the predicting variable was statistically significant (p<0.05).

** Table 7. Predictors of the psychological well-being variable **

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>T</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>11.469</td>
<td>4.294</td>
<td>3.583</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Technostress</td>
<td>0.537</td>
<td>0.052</td>
<td>0.648</td>
<td>12.407</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Dependent variable: Psychological well-being.

The teaching technostress is a phenomenon that has emerged as a result of the growing integration of information and communication technologies (ICT) in the educational field. As teachers face the challenge of adapting and effectively using ICT in their pedagogical practice, they can experience a series of psychological tensions and discomfort related to the use of technology. The technostress of teachers is characterized...
by the sensation of information overload, the invasion of personal life and privacy, the complexity associated with the use of ICT, the constant uncertainty due to the updates and technological changes, as well as the labor insecurity before the threat that technology can replace its professional role. In that sense, in the present research it was sought to determine if the technostress is significantly related to the psychological well-being of basic education teachers.

Preliminarily, it was found that most teachers had low technostress levels. However, it is necessary to point out that a considerable group of teachers showed moderate and high levels of technostress. This indicates that they were characterized by experiencing a negative psychological state that affected their attitude, behavior, psychosocial well-being and physiological health. These effects could be originated both directly and indirectly, and are related to two main factors: the constant and supersaturated use of ICT in the development of their professional practice and the limitations perceived in relation to their use. Similar results were obtained in an investigation carried out in Peru, where they determined that 46.2% of the teachers presented low levels of technostress (Alcas et al., 2019).

Another preliminary finding shows that the level of psychological well-being of most teachers was high. In other words, they accepted the situations they had to face, they were assertive and trusted their own judgment, they had pending goals and projects, they considered that life has meaning and put into practice values so that their life makes sense. Although the described result was favorable, it should not be lost sight of the fact that more than a third of teachers had medium and moderate levels of psychological well-being, a reality that could affect their performance in the classroom. The exposed finding coincides with what was reported by Romeiro (2021), who evaluated the psychological well-being of Paraguayan teachers and found that the predominant level was high (68.8%).

Another finding shows that women presented higher levels of technostress than men. This is because women tend to use more intensively technology in their daily lives, since they have the need to balance family work and responsibilities, which can lead to greater use of technological devices. Simultaneously, the extensive use of technology can generate greater exposure to stressful situations and increase the probability of experiencing technostress. Similar results were obtained in some investigations (Baño et al., 2021; Carlotto et al., 2017; Villavicencio et al., 2020).
When comparing the technostress according to the age group, it was found that teachers who were over 40 years old presented higher levels of technostress than younger teachers. This is due to the fact that teachers of more than 40 years with considered digital immigrants, have a lower domain of technological competences, less familiarity with prolonged connectivity to ICT and possible feelings of ineffective or low self-confidence in the use of technologies. There are investigations that support the described result (Özgür, 2020; Sánchez et al., 2020).

A relevant finding indicates that the technostress was related in reverse and significant way to the psychological well-being of teachers. Pearson correlation coefficient between both variables was -0.465 and the p-value was lower than the level of significance (p<0.05). This means that as the technostress level experienced by teachers increases, their psychological well-being tends to decrease. There are researches that coincides with our results. In Pakistan they evaluated the relationship between technostress and satisfaction with life in university teachers and found that both variables were significantly related (Shaukat et al., 2022). Likewise, in Sri Lanka they determined that five factors associated with technostress (techno-overload, techno-invasion, techno-complexity, techno-insecurity and techno-attachment) were significantly related to the well-being of teachers (Ranathunga & Rathnakara, 2022).

At present, technostress is considered a phenomenon that has been studied to determine its negative causes and effects (Özgür, 2020). It has as main symptoms anxiety, physical diseases, behavioral tension, technophobia, mental fatigue, memory alterations, lack of concentration, irritability and sensations of exhaustion and insomnia (Molino et al., 2020). Therefore, it is necessary to design prevention and intervention policies to detect technostress cases and provide timely attention to teachers who suffer from it. In this way the symptomatology and sequelae that may cause will be reduced.

It was also found that the adjusted determination coefficient R² was 0.212, which means that the technostress explained 21.2% of the total variance of the psychological well-being variable. On the other hand, the value of F was equal to 66.334 (p<0.05), which indicates that there is a significant linear relationship between the technostress (predicting variable) and psychological well-being (dependent variable). The above indicates that the technostress experienced by teachers has a significant impact on their psychological well-being. This implies that stress related to the use of technology can negatively affect the mental health and emotional well-being of teachers. A similar result
was carried out in Turkey, where they analyzed the relationship between technostress, personal well-being and job satisfaction levels in teachers and reported that the intensive use of technology negatively affected their life and performance, since it increased their workload (Aktan & Toraman, 2022).

The present research addresses crucial issues related to the mental health of teachers, which has received little attention at the local, national and international level during the return to the face-to-face classes after the pandemic for the COVID-19. Therefore, the findings are relevant and original. However, it is important to highlight some limitations that could affect the generalization of the results and generate social desirability biases. These limitations include the homogeneity of the sample and the characteristics of the instrument used to collect the data. For future research, it would be important to expand the sample size and include teachers from other contexts, in addition to using techniques and instruments for compilation of complementary data that provide greater objectivity to the mentioned process.

4 CONCLUSIONS

In the present research, it was found that basic education teachers to be characterized by low technostress levels and high levels of psychological well-being. In addition, it was determined that there is a significant relationship between both variables. Pearson correlation coefficient is 0.465 with a p-value lower than the level of significance (p<0.05). On the other hand, it was found that the technostress significantly predicts psychological well-being (β=0.648, p<0.05). The described findings suggest that teachers who present high levels of technostress may be prone to low levels of psychological well-being.

Based on the results, a basis for the development of support strategies and programs aimed at teachers is provided. These interventions could include training in technostress management, promotion of emotional self-regulation skills and the creation of healthy and support work environments. On the other hand, it is necessary to promote healthy practices in the use of technology, such as practicing digital disconnection, promoting self-care and promoting conscious and balanced use of technology, to protect and improve the psychological well-being of teachers. By promoting psychological well-being, educational quality can be improved. As is known, teachers with a good state of
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psychological well-being are more trained to face work challenges, provide better support to students and create a positive and enriching learning environment.
REFERENCES


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