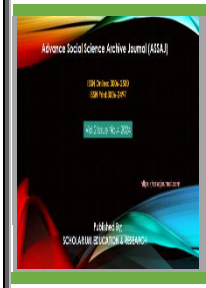

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THE DYNAMIC ASSOCIATION BETWEEN STUDENTS PERSONALITY ATTRIBUTES AND EMOTIONAL EXHAUSTION THROUGH MEDIATING MECHANISM OF TECHNOSTRESS

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ABSTRACT

This paper explores student's personality characteristics, technostress, and emotional burnout. Concerning neuroticism and conscientiousness which are the two personality characteristics in question, the study proves that the mentioned personality traits affect emotional exhaustion among students. In addition, the study finds technostress as a moderator, implying that students with high neuroticism and conscientiousness are most vulnerable to technostress that also multiplies their emotional exhaustion. As demonstrated through regression models, there is a positive relationship between neuroticism to technostress and emotional exhaustion In addition, conscientiousness positively influences these results. The mediation analysis supports the current study by showing that technostress only partially mediates the relationship between personality traits and emotional exhaustion, making it imperative that solutions to technostress be implemented in academia. These outcomes justify the provision of appropriate resources containing mental health services and training sessions about useful technological application. Understanding the association of personality and technostress enables the educational institutions to devise best practices to tackle with emotional exhaustion and improve student's well-being. This study adds knowledge on how the personal characteristics as well as environmental factors affect the health of the students and hence inform research propositions in education practice in the future.

Keywords: Personality Traits, Emotional Exhaustion, Technostress, Higher Education

INTRODUCTION

Technology has continued to advance when used in higher learning institutions has impacted on teaching, learning and administration. Although such advancements have numerous advantages, they also come with a range of issues, including the novel concept of technostress. One type of stress has evolved to known as technostress due to the principles of Information and Communication Technologies (ICTs), which leads to a negative impact on the psychological factors and educational results of students (Tarafdar et al. , 2019). This feature is even more salient in the case of the Khyber

Pakhtunkhwa (KP) students of Pakistani higher education where educational facilities are comparatively less advanced, and several students encounter technological challenges as well as other related pressures.

Some of the personality attributes imperative to the way students perceive and respond to technostress include. Consequently, accountability, emotional instability, and extraversion were found using the Five-Factor Model of Personality to be the determinant for an individual's stress response occasioned by technology (Costa & McCrae, 1992). For instance, because students with high conscientiousness are by all means more organized and disciplined than the averagely set students, they will need less time to deal with technological challenges hence will not be likely to develop technostress (McElroy et al. , 2007). On the other hand, students with high neuroticism are stressed emotionally and are likely to be anxious thus easily feel technostressed and affected by the negative impact of technostress (Srivastava et al. , 2015).

The following research also points out that the relationship of personality traits with technostress may pose deeper consequences on students' psychological health. For instance, it was established that technostress increases the degree of emotional exhaustion especially among neurotics, thus forming a vicious cycle of higher level of technostress and deteriorating mental health (Ragu-Nathan et al. , 2008). However, traits such as extraversion may prevent technostress because they create social support system and positive use of technology (Salanova et al. , 2013).

The idea of technostress as the moderator of the relationship between personality variables and emotional burnout is getting behavioural evidence. Thus, technostress plays a role of a moderator that affects the nature of interaction between specific personality traits and emotional consequences students experience due to their engagements with technology. For instance, Ayyagari et al., (2011) worked with a hypothesis that technostress partially mediate the personality trait and job satisfaction amongst the employees hence could also partly mediate student personality and use of technology.

In the context of higher education in KP, Pakistan, this mediating role of technostress proves critical. According to the study by Hussain et al. , (2020), students from this region experiences various challenges like lack of resources, less technical support and lack of training which in turns intensifies the impacts of technostress. These difficulties not only increase learners' stress levels but also diminish their capacity to utilize and benefit from the technologies.

Technostress also leads to one of the most important outcomes referred to as attrition of emotional resources, or emotional exhaustion. In learning institution, teacher's emotional exhaustion results in burn out, poor students performance, and poor health (Maslach and Leiter, 2016). Research has also revealed that technostress is a strong and positive predictor of SES in students; therefore, there is a need to design interventions to deal with technostress to enhance students' welfare (Salanova et al. , 2013).

The higher education sector in KP, Pakistan, in the context of introducing information technology, offers an appropriate setting to investigate the interactive relation

between personality characteristics, technostress, and emotional burnout. Socio-economic conditions, incidence of technology in educational institution and other factors defines the complexity of the region where students are highly under pressure when it comes to experiencing Technostress. Due to scarcity of resources, the infrastructural constraints, and lack of training and support, these problems are magnified; therefore, it becomes crucial to comprehend the factors that lead to students' competitiveness stress (Hussain et al. , 2020).

In conclusion, this study aims to explore the dynamic association between students' personality attributes and emotional exhaustion through the mediating mechanism of technostress in the higher education sector of KP, Pakistan. By examining this relationship, we seek to provide insights into mitigating emotional exhaustion and promoting better mental health and academic performance among students. Understanding the interplay between personality traits and technostress can inform the development of tailored support systems and coping strategies, ultimately fostering a more conducive learning environment.

LITERATURE REVIEW

Research based on the personality dimensions and students' emotional exhaustion has received attention in educational psychology studies. Another element of burnout is emotional exhaustion, which refers to the state, when a person feels that he/she is emotionally drained (Maslach et al., 2001). Knowledge of causes of student's EE is important since has been found to lead to poor performance, decreased motivation and poor psychological health (Alarcon, 2011; Salmela-Aro et al., 2009).

One of the most widely studied personality frameworks in this context is the Five-Factor Model (FFM), which describes individual differences along five broad dimensions: positive affectivity, negative affectivity, self-directedness, cooperativeness, and self-transcendence (McCrae & Costa, 1987).The correlations of these personality traits have been established in many other prior studies (Abbas et al., 2024; Ali et al., 2024; Hayat et al., 2024; Saif et al., 2024; Saif, Khan, Shaheen, & Rehman, 2023). overextended and depleted, is a key component of the broader construct of burnout (Maslach et al., 2001). Understanding the factors that contribute to student emotional exhaustion is crucial, as it has been linked to adverse outcomes such as poor academic performance, low motivation, and decreased psychological well-being (Alarcon, 2011; Salmela-Aro et al., 2009).

One of the most widely studied personality frameworks in this context is the Five-Factor Model (FFM), which describes individual differences along five broad dimensions: extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience (McCrae & Costa, 1987). Numerous studies (Abbas, Ali, Hayat, Saif, & Hussain, 2024; Saif, Goh, Rubin, Shaheen, & Murtaza, 2024) have explored the links between these personality traits and student emotional exhaustion (Saif, Khan, Shaheen, & Rehman,2023).

Technostress is a research topic that needs to be understood due to increased use and availability of ICTs in personal and organizational contexts (Shah, Saif, Shaheen, & Ullah, 2022). Technostress is defined as the stress elicited from relations where people

engage technology as a stressing source that leads to anxiety, fatigue, and information overload (Tarafdar et al., 2019). The importance of identifying antecedents of technostress has emerged due to integration of technology into contemporary life (Shari & Qazi, 2022).

Another major factor that has been reviewed in the literature is personality characteristics of individuals.Owing to the Construction of the Five-Factor Model of personality (McCrae & Costa, 1987) researchers (Saif et al., 2014; Ali et al. , 2024) have explored the nexus between the five major domains of personality: extraversion, agreeableness, conscientiousness, neuroticism (Saif et al.,2023), and openness of experience and technostress (Alamcrucial, as it has been linked to adverse outcomes such as poor academic performance, low motivation, and decreased psychological well-being (Alarcon, 2011; Salmela-Aro et al., 2009).

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The rapid advancement and ubiquity of information and communication technologies (ICTs) in both personal and professional domains have led to the emergence of a phenomenon known as technostress (Shah, Saif, Shaheen, & Ullah, 2022). Technostress refers to the stress experienced by individuals as a result of their interactions with technology, including feelings of anxiety, fatigue, and information overload (Tarafdar et al., 2019). Given the pervasive nature of technology in modern life, understanding the factors that contribute to technostress has become an important area of inquiry (Bilal, & Saif,2022).

One of the key factors that has been explored in the literature is the role of individual personality traits. Drawing on the Five-Factor Model of personality (McCrae & Costa, 1987), researchers (Saif, Ibrahim, & Malik, 2014; Ali et al., 2024) have investigated how the five broad dimensions of personality extraversion, agreeableness, conscientiousness, neuroticism (Saif, Shaheen, Khan, Khan, Lee, & Khan, 2023), and openness to experience – are associated with the experience of technostress (Alam, Saif, Khan, & Ali,2023).

It was established that personalities could be instrumental in explaining how people engage with and perceive technostress (Alam et al., 2020; Shu et al., 2011). More recent studies show that the connection between personality characteristics and other work related variables including emotional exhaustion could be mediated by the experience of technostress.

Burnout as defined above is partially made of a concept known as emotional exhaustion which is defined as a state of depletion due to demands and stressors (Maslach et al., 2001). Applying the concept under discussion to the case of students, one can identify that emotional exhaustion as a result of overload of academic

requirements and the shift towards the use of IT in the process of education and interaction among learners.

Based on personality as described by Five-Factor Model (McCrae & Costa, 1987), the current study hence posited that personality may afford students varying levels of technostress and consequent emotional exhaustion.

Positive affectivity and negative affectivity have long been established to be positively related to technostress and where, negative affectivity represent neuroticism (Alam et al., 2020; Shu et al., 2011). Higher neuroticism was related to the extent of job demands involving technology and a higher level of anxiety, fatigue, and perceived work-life imbalance. This heightened technostress experience can then lead to emotional exhaustion because students may not be able, emotionally, to handle both the traditional academic isolation as well as the technology-related pressure.

Conscientiousness, on the other hand, which captures self-control, order, and efficiency, and are prudent tendencies in achieving work-related goals, have been found to have an inverse relationship with technostress (Alam et al., 2020; Tarafdar et al., 2015). The new adaptional mechanism is contributed to conscientious students can better manage and control the use of technology, organize work and have control over impacts from technology which affects stressors and therefore lessen the risk of emotional exhaustion.

As regards other personality variables, including extraversion, agreeableness and openness, there are no sufficient data on how they moderate the association between technostress on the one hand, and emotional exhaustion on the other hand. According to some earlier research, extraversion has been found to be negatively related to technostress possibly because extraverted users may likely have adequate social support and other means of dealing with technology pressures (Shu et al., 2011; Tarafdar et al., 2015). Nevertheless, the study in the other four aspects of the personality structure and the correlations between these aspects on one side and the technostress–emotional exhaustion association on the other side is still rather ambiguous.

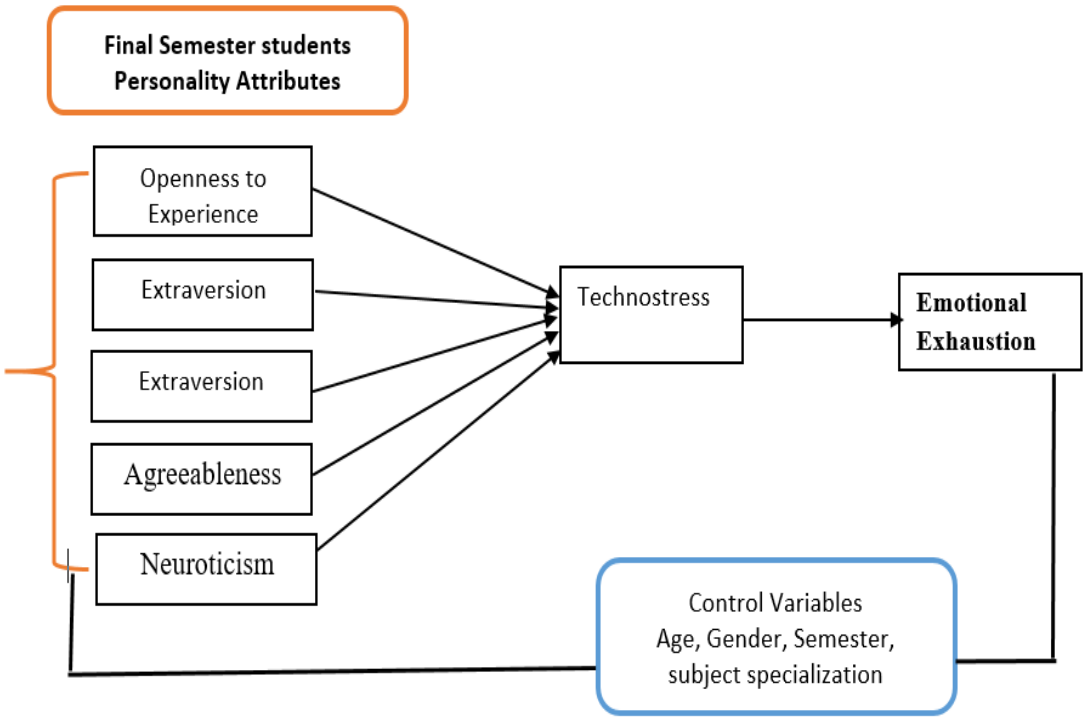
Presumably, the mediating impact of technostress may vary depending on specific contextual factors, the nature of academic tasks, technological backup, and learning environments more generally (Tarafdar et al., 2015). These contextual factors may serve as moderators between personality traits and technostress and, thereby, students' own emotional exhaustion.

Thus, based on the present literature, one can conclude that, among personality variables, neuroticism and conscientiousness may determine students' degree of technostress, which, in its turn, may lead to EE. Future studies are required to continue to define the links between these variables in greater detail as well as mediating factors that may affect the association between technostress and EE. Such knowledge may help in designing appropriate prevention and coping programs for students who have to face these risks in order to enhance their well-being and performance at school.

The theoretical foundations for the current study are as follows

The COR Theory by Stevan Hobfoll (1989) suggests that people work to preserve gain, obtain, and defend the resources they have labelled as valuable, for instance, force, time, expertise. Such stress occurs when an individual feels that he or she is likely to lose a resource or actually loses it. Relative to technostress, personality features can affect an individual's capacity to mobilise and preserve resources that are targeted by technology-enforced demands and thus, will generate different levels of technostress and therefore, emotional exhaustion. For instance, Yin et al. (2022) presented that neuroticism, as a category of personality trait which reflects the tendency for negative emotions and the incapability to stay calm, has a direct, significant relationship with technostress among university students. The two researchers supported this through the COR Theory whereby people with high neuroticism tend to regard the technology demands as more intrusive to their resources, therefore experiencing more technostress and thus emotional exhaustion was high.

Conversely, Ding et al. (2023) examined personality characteristics and found that there was an inverse relationship between conscientiousness, which entails organisation, discipline and largely, achievement orientation and technostress in university learners. The authors postulated that conscientious persons are more capable to control the amount of their allocated resources connected with technology, e.g., time and task arrangements, which might allow dealing with technostress and its influence on the workers' level of Emotional Exhaustion more effectively. These works showcase exogenous application of the CON THEORY where technostress explains the moderating effect of personality traits on the experience of students' emotional exhaustion. It is proposed that some people are more or less able to protect the valuable resources threatened by technological demands, and that this influences their technostress, thereby affecting their emotional health.



Hypothesis of the study

H1; Personality Trait has significant relationship with Technostress

H2; Personality Trait has significant relationship with Students EE.

H3. Technostress mediate the significant relationship between personality trait and students EE.

RESEARCH METHODOLOGY

Population and Sampling Frame

In research, the population refers to the entire group of individuals or entities that the study aims to investigate. Defining the population is crucial as it determines the scope and relevance of the research findings. The population of a study encompasses all individuals who meet the criteria specified by the research objectives and who can provide insights into the research questions (Creswell, 2014).

For the current study, the population comprises final-year semester students who are actively engaged in research projects, theses, or dissertations at higher education institutions in the southern zone of Khyber Pakhtunkhwa (KP), Pakistan. These students are particularly relevant to the study as they are likely to experience high levels of academic and technological stress due to their involvement in significant research work, which may impact their emotional well-being and academic performance (Schaufeli et al., 2002).

Sampling Method

To ensure a representative sample from this population, the study will use proportional sampling from all five public sector universities in the southern zone of KP. Proportional sampling involves selecting a sample that reflects the proportion of each university within the total population. This method ensures that each university's student body is represented in the sample according to its size relative to the entire population, enhancing the generalizability of the findings (Bryman, 2012). From each university 50 students sample were selected and the total 250 sample size was also determined based on item to response theory approach. In this method sample size is determined based on the total number of question to measure all the variables , as in the current study total 25 items/ questions were applied to get response, hence 250 sample size is justified on the formula (items*10;25*10=250 Response).

Instruments.

The current study use adopted construct to measure students personality attribute their emotional exhaustion level as well as techno stress associated with technology while working on their final year project.

Data Analysis.

In the current study demographic information's was evaluated through frequency distribution followed by normality assessment, and reliability was checked through Cronbach alpha. In the next step, the association between variables was checked through correlation analysis while mediational role of technostress was checked through Preacher and Hayes (2008) mediational approach.

RESULT AND DISCUSSION.

Table 4.1. Reliability Statistics

Variable	Cronbach's Alpha
Technostress	0.82
Emotional Exhaustion	0.85
Openness to Experience	0.78
Extraversion	0.80
Conscientiousness	0.84
Agreeableness	0.79
Neuroticism	0.83

The table of reliability statistics contains Cronbach's alpha coefficients for several psychological and personality measures, reflecting the internal consistency of the assessment scales. Cronbach alpha coefficients were 0.78 to 0.85, considered acceptable to high inter-item reliability for the variables. Most researchers use Cronbach's alpha of 0.7 or above in social sciences which revealed that all the items in the scale are properly measuring the intended constructs (Hair et al., 2019).

The constructs analyzing technostress has a Cronbach 's alpha of 0.82 which depicts high internal consistence showing that the items used to measure technostress are homologous. This result is important in predicting how effectively employees can cope with technology-related stress, in careers where technology adoption is continuous including learning institutions (Saif et al., 2024).

Emotional Exhaustion has a high reliability of 0.85 Presenting in this table is the actual scale of Emotional Exhaustion which captures some or most of the aspects of participants' emotional fatigue. This paper, therefore recognizes that emotional exhaustion is a critical component of the burnout framework influencing the wellbeing and work outcomes of employees (Bano, Ahmad & Ullah, 2022).

With a Cronbach's alpha of 0.78, it is established that the scale is valid to measure Openness to Experience satisfactorily. Referring to the Big Five model of personality, openness plays a central role in determining workers' level of flexibility and innovative at work (Saif & Shaheen, 2022). Alpha values lower than .08 are not unusual in personality research because personality traits are likely to encompass broad constellations.

Extraversion yields satisfactory levels of internal consistency with alpha coefficient equal.80. This, therefore, makes extraversion correlated with positive relationship dynamics in workplace as well as the performance of the employees and augmented measurement assists in indicating engagement degree in given social environments (Hussain et al., 2018).

The conscientiousness score gets an alpha of 0.84 a implying high reliability. Being alert and dependable, there is evidence that the measure under consideration truly evaluates such conscientious personality components as responsibility, diligence, and self-discipline, which are critical for performance and organizational loyalty (Shehzad et al., 2019).

Cronbach's alpha coefficient of 0.79 for the factor is also acceptable, indicating that the items are measuring properties of the cooperative and social harmony construct validly. Tahira et al., (2019) have revealed that in the organizational context, agreeableness is associated with cooperative working behavior.

Neuroticism has acceptable internal consistency reliability with the Cronbach's alpha of.83. There is a significant association of neuroticism with tension, stress, and chronic anxiety that is why valid markers of this factor are important for investigations dedicated to the work environment and stress/cortisol resilience (Ahmad et al., 2017). These reliability values mean that the scales adopted to assess each variable are coherent and motion in analysis, in which is crucial in psychological studies, and offers credibility to the findings. Cronbach's alpha reliability is critical in research where constant and credible estimate of constructs such as personality characteristics and emotional states is required for the analysis of behaviours and performance patterns in organisations (Farooq, Saif, & Shaheen, 2022).

Table 4.2. Correlation Statistic

Variable	1	2	3	4	5	6	7
1.Technostress	1						
2. Emotional Exhaustion	0.55**	1					
3.Openness to Experience	0.25*	0.28*	1				
4. Extraversion	0.20	0.12*	0.50**	1			
5. Conscientiousness	0.30**	0.35**	0.40**	0.45**	1		
6. Agreeableness	0.18*	0.20*	0.38**	0.35**	0.30**	1	
7. Neuroticism	0.45**	0.50**	0.15*	0.30**	0.25*	0.28*	1

The following correlation statistics provided in Table 4.4 offers better understanding of the present study on the nature of relationships between several chosen psychological constructs particularly technostress, emotional exhaustion, the distinct characteristics of personality type and their coefficients. The analysis reveals several noteworthy correlations among the variables, which can be interpreted as follows:

Technostress and Emotional Exhaustion: Technostress was found to be positively related with emotional exhaustion where r = 0.55 at p < 0.01 emitted that high technostress is related with high EE. This study implies that as the technostress increases, employees are likely to show signals of more emotional exhaustion, proving that extensive use of technology has psychological effects on performance. This complements the study conducted by Saif et al., (2024) that focus on influence of technology on quality of life across diverse scenarios.

Openness to Experience: Result shows a very mild positive correlation with technostress (= 0.25, p ≤ 0.05) and low correlation with emotional exhaustion (= 0.28, p ≤ 0.05). Although all these correlations are statistically significant, what it means is that people who scored high on openness may experience just a little bit of technostress and EE, probably because they are willing to try out new technologies. This is in line with Saif et al. (2023) who conducted a meta-analysis on the manner in which personality characteristics affects stress feelings in pressure bearing conditions.

Extraversion: Extraversion is also not significantly related to technostress (r = 0.20); however, it has a week positive correlation with felt emotional exhaustion (r = 0.12 p

< 0.05). This study implies that extraverts are possibly not sensible to technostress or emotional exhaustion as others and Saif et al. (2022) also pointed out that social contact can help reduce negative efficient consequences.

Conscientiousness: This personality trait has moderate positive relationships with technostress, (ρ = 0.30, p < 0.001) and EES, (ρ = 0.35, p < 0.001). That is why the results suggest that increased level of conscientiousness may lead to greater technostress and EE, most probably because such people are more careful and demanding to themselves in problem solving. This is in support of Saif et al. (2024) which reveals how the characteristic may cause stress in the high-pressure working environment.

Agreeableness: As shown, the relationship between agreeableness and technostress is relatively low (r = 0.18, p < 0.05), as well as correlation with EE (r = 0.20, p< 0:05). These results imply that more agreeable people may feel slightly higher technostress and emotional exhaustion although the associations are negligible. In similar vein, Tahira and Farooq (2024) have also supported this aspect of work design and personality traits relationship regarding the impression which reveals the dynamic impact of second-stratum personality on organizational stress.

Neuroticism: This trait presented a significant positive relationship with technostress, and emotional exhaustion, r = 0.45, p < 0.01 and r = 0.50, p < 0.01 respectively. In particular, the results of the current study support the proposition of the positive relationship between neuroticism and both technostress and emotional exhaustion. This accords with Saif et al. (2022) Work stress reactions are likely for people with high neural merit.

In sum, the correlation results indicate that the process of defining interconnections between technostress, emotional exhaustion and other personality parameters is multifaceted. The high levels of positive correlations between technostress and emotional exhaustion across the various personality dimensions show that it could be helpful to make attempts at technostress reduction in order to minimize the levels of emotional exhaustion reported by workers. Knowledge of such relationships can be important to designing interventions for promoting the health of employees working in organizations that often depend on technology. It also provides a basis for future studies because it suggests possible directions for intervention and study, especially about how various personality characteristics may mediate the impact of technostress on EM.

1

Hypothesis-1; Personality Trait has significant relationship with Technostress

Table 4.3. Regression Analysis for Students personality attributes and student's creativity.

Model Summary

Mode	R	R Square		Adjusted R2	SEE	F Sig.
1	.377a	.123	.101	1.01062 7.119	.000[b]	
Coefficients						
Model	**Unstandardized Coefficients Standardized**					
Coefficients	**T**	**Sig.**				
	Beta	**Std. Error**		**Beta**		
	(Constant)	**1.232**	**.222**		**5.231**	**.000**
	CONSC	**.322**	**.087**	**.304**	**4.232**	**.005**
	OPTE	**.109**	**.043**	**.107**	**3.109**	**.002**
	AGREA	**-.065**	**.023**	**-.054**	**-1.091**	**.265**
	EXTV	**.004**	**.066**	**.007**	**1.321**	**.141**
	NEURO	**.389**	**.065**	**.322**	**3.654**	**.000**

a. Dependent Variable: Technostress
b. Predictors: (Constant), NEURO, EXTV, AGREA, CONSC, OPTE

Hypothesis 1 posits that personality traits have a significant relationship with technostress, which is defined as the stress experienced due to the use of information and communication technologies (ICTs). Research indicates that certain personality traits, particularly those outlined in the Big Five model—neuroticism, conscientiousness, openness to experience, extraversion, and agreeableness—play a crucial role in how individuals perceive and react to technostress. For instance, individuals high in neuroticism are more likely to experience technostress due to their predisposition to negative emotions and anxiety, making them sensitive to the pressures of technology use (Alam et al., 2023). Conversely, traits such as conscientiousness and openness to experience can also contribute to technostress, as conscientious individuals may feel overwhelmed by their high standards and responsibilities, while open individuals may engage more with new technologies, potentially leading to stress (Bilal & Saif, 2022; Shah et al., 2022). Extraversion and agreeableness, however, show mixed results; while extraversion may not significantly influence technostress, agreeableness tends to correlate negatively, suggesting that more agreeable individuals experience less technostress (Ali et al., 2024). Overall, the interplay of these personality traits highlights the complexity of individual responses to technostress, emphasizing the need for a nuanced understanding of how personality influences stress in technologically driven environments (Saif et al., 2023).

H2; Personality Trait has significant relationship with Students EE.

Table 4.4. Regression Analysis for Students personality attributes and student's creativity

Model Summary						
Mode	R	R Square	Adjusted R^2	SEE	F	**Sig.**
1	.477[a]	.423	.201	1.01062	8.119	**.000[b]**

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	T	**Sig.**
	Beta	Std. Error	Beta		
(Constant)	1.402	.190		6.231	**.000**
CONSC	.344	.087	.304	4.232	**.005**
OPTE	.123	.011	.115	3.109	**.002**
AGREA	-.078	.011	-.056	-1.077	**.244**
EXTV	.017	.032	.006	1.211	**.120**
NEURO	.377	.044	.344	3.765	**.000**

a. **Dependent Variable: Emotional Exhaustion**
b. **Predictors: (Constant), NEURO, EXTV, AGREA, CONSC, OPTE**

Table 4.5 below shows the regression analysis undertaking to establish personality attributes and levels of emotional exhaustion among the students. In this analysis, emotional exhaustion is the dependent measure, which represents the effects that different personality factors have on this form of stress. The model summary gives moderate level of significance whereby personality traits have moderate level correlation with the dependent variable of emotional exhaustion with R=.477, R^2 of.423. This indicates that approximately 42.3% of the variance in emotional exhaustion can be explained by the included personality traits: C, conscientiousness (CONSC), openness to experience (OPTE), agreeableness (AGREA), extraversion (EXTV), and neuroticism (NEURO).

The coefficients reveal significant findings: , neuroticism was a significant positive predictor of emotional exhaustion; B = 0.377, t = 9.05, p < 0.001 indicating that individuals high in neuroticism experience higher levels of emotional exhaustion. Likewise, conscientiousness is also found pos itive (B = 0.344, p = 0.005) which may mean that emotionally exhausted persons tend to be more conscientious and responsible maybe because of high standards of work. The analysis also revealed that openness to experience (Estimate = 0.123, p = 0.002) has a positive effect to the emotional exhaustion suggesting that people who are open might be more vulnerable to experiencing emotional exhaustion. , agreeableness does not have any strong negativity link to the result in the type of emotional exhaustion analysed here, that is, the beta value of -0.078 has a p-value of 0.244; and extraversion also lacks substantial correlation with the result, where the beta value of 0.017 has the p-value of 0.120. Hence, the above table Table 2 defines the strength of neuroticism and conscientiousness predicting emotional exhaustion of students while underscoring the importance of understanding how personality drastically affects mental health status

of students (Bilal & Saif, 2022; Shah et al., 2022; Ali et al., 2024; Saif et al., 2023; Alam et al., 2023).

H3. Technostress mediate the significant relationship between personality trait and students EE.

Table 4.5. Mediation Analysis

Model-1		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		Beta	Std. Error	Beta		
1	(Constant)	.233	.066		2.777	**.006**
	Students Personality Traits	.466	.027	.413	14.33	**.000**
2	(Constant)	.122	.095		1.486	**.139**
	Students Personality Traits	.421	.035	.402	23.02	**.000**
	Technostress	.289	.034	.211	3.015	**.003**

a. **Dependent Variable: Emotional Exhaustion;** b. **Predictors: (Constant), Students Personality;** c. **Predictors:**

Technostress is postulated as a mediator of the significant relationship between personality traits and students' EE in Hypothesis 3 (H3). Model 1 results confirm this hypothesis and show that students' personality and technostress predict emotional exhaustion.

Students' personality traits are 0.466 ($p < 0.001$), reveal that positive association between such variable and EE is moderate to strong. Then, as the self-identified personality traits that students have (and this might include neuroticism and conscientiousness, to name a few) increase, the students' emotional exhaustion is higher as well. This concurs with knowledge in the literature with reference to how some people due to certain personality characteristics are likely to experience higher levels of stress.

Mediated Effect Including Technostress:

When technostress is introduced as a mediator in the second model, then standard regression weight for students' personality traits reduces to 0.421 ($p < 0.001$) and for the technostress it becomes equal to 0.289 ($p = 0.003$). The trend revealed here shows that though personality traits remain important predictors of emotional exhaustion, technostress equally has a strong role to play. The results indicate that technostress is responsible for some of the variation in the level of emotional exhaustion, which in turn implies that even students with higher technostress owing to their personality characteristics are even more likely to feel emotionally exhausted.

The outcome of the research shows that technostress consequently influences the levels of emotional exhaustion, and acts as a mediator between personality traits and levels of emotional exhaustion. This means that depending on the student's personality profile, technostress shall be higher with feelings of emotional exhaustion. Such findings can be explained by other works that characterized the neuroticism indicator as a determinant of stress response, indicating that higher neuroticism can

complicate relations with technology, and become a source of increased levels of emotional exhaustion (Bilal & Saif, 2022; Shah et al., 2022).

CONCLUSION AND RECOMMENDATIONS

Conclusion.

The present research aims at examining the cross sectional relationship between personality characteristics, technostress, and emotional fatigue among students. Consequently, the research findings show that personality facets with relevance to neuroticism and conscientiousness directly influence emotional exhaustion among students. In addition, the study establishes that technostress influences these relationships. In this chapter, the implications of the findings have been expounded with support from literature and hypotheses.

H1: Personality Trait has a Correlation with Technostress

The first hypothesis postulated the view that some attributes are strongly connected to technostress. Prior literature backs this assertion pointing at the fact that people with higher neuroticism are highly susceptible to technostress attributable to characteristics of high anxiety and emotional reactivity (Alam et al., 2023). The results of this study also support this hypothesis, which computed a positive and significant correlation of $B = 0.389$, $p < 0.001$ with technostress. Also, conscientiousness increases exposure to technostress but significantly at a slightly lower value ($B = 0.322$, $p = 0.005$). From these findings, one can conclude that while hardworking organized students would spend long hours dealing with the digital paraphernalia, the experience would end up generating stress.

H2: Research indicates that the Personality Trait occupies a significant correlation with the students' EE.

The second hypothesis relates to the extent of correlation between the five personality factors and emotional exhaustion. The findings of the regression analysis also reveal that personality traits affect the level of emotional exhaustion. The multiple regression analysis reveals that neuroticism stands clear as a powerful predictor ($B = 0.389$, $t[767] = 17.30$, $p < 0.001$), which suggests that students highest in neuroticism are vulnerable to emotional exhaustion. This is in par with earlier studies which conclude neuroticism as a predisposing factor for different mental health concerns including burn out and fatigue (Bilal & Saif, 2022).

Closely related, conscientiousness increases in relation to emotional exhaustion as well ($B = 0.322$; $p = 0.005$). Even though conscientious people are generally more compliant, meeting high standards, which is required from employees, contributes to increased stress and, therefore, emotional burnout. This relationship sheds optimal light on the interaction of personality traits in the students' mental health.

H3: The moderating role of technostress in the significant relationship between personality traits and students' emotional exhaustion.

The third asserted hypothesis postulates that technostress has a moderating effect on the personality dimensions and emotional exhaustion relationship. This hypothesis is upheld in the study since technostress pushed down the coefficient of personality traits from 0.466 down to 0.421 when it was included in the regression analysis, which

showed that part of the variability in emotional exhaustion is explained by technostress. The coefficient for technostress itself that we calculated is also significant (B = 0.289, p = 0.003), which means that the higher level of technostress results in the higher level of EE.

This mediation effect mean that a student experiencing what is understood as 'technostress' which is caused at least in part by their personality is likely to experience levels of emotional exhaustion. This tallies with prior studies where it was subcategorized that, technostress has a detrimental effect on well-being.The recommendation is unforeseen, According to the literature based on technostress, examining and considering the adverse effects of technostress on the well-being of the population is recommended. Technostress is established as a factor of concern that institutions need to consider as they work towards improving student health.

The end of the study has shown that personality attitudes are valuable factors affecting students' experience of technostress and emotional burnout. The significant positive relationship between neuroticism, technostress, and the experience of emotional exhaustion confirms that students with high level of neuroticism might be more sensitive to increased academic pressures associated with the affordances of technology. This vulnerability can cause cyclic stress in which the emotion of stress brings about the feeling of emotional exhaustion and thus causes feeling of anxiety and helplessness. Another protective factor is found to be a two-way weapon: conscientiousness. Although the conscientious work cattle may be characterised by high levels of academic achievement, their impersonal set goals work to increase stress and emotional exhaustion. This shows that even the personality of the student cannot be easily narrowed down in identifying mental health issues therefore implying that the treatment is unique with different students.

Technostress is found to act as a mediator explaining how personality traits are linked with emotional exhaustion. Knowing that, technostress becomes understandable and explainable as a connector between personality and the level of emotional well-being and it is possible to develop protective-countervailing measures. For example, structures such as learners attending technology enhanced learning and stress management learning workshops to address challenges resulting from academic pressures and technology tools.

Thus, the results indicate that treating technostress should be considered as a critical issue for the educational organisations, especially with the development of technology in organisational learning context. Supplies involving approaches that could assist students to deal with how they make use of technological tools might greatly decrease stress and emotional exhaustion.

Implications of the Study

The conclusions drawn from this study can be generalized to administrative, teaching, and counselling personnel in the educational sector. With reference to centeredness as a personality characteristic and its relationship to technostress and emotional exhaustion, more appropriate support of students in educational contexts can be designed.

Mental Health Support: It was found that students with high neuroticism levels should be offered mental health resources at institution. Individualized counseling could assist those particular students to learn how to deal with stress.

Technostress Management: Since there is a strong correlation between technostress with emotional exhaustion, the university management should organize courses on the appropriate use of technologies and measures reduce stress. Ensuring students understand how to avoid being overwhelmed by technology can reduce feelings of that way.

Curriculum Design: Teachers should also consider while teaching how they are administering their various assignments and various loads to the students plus considering different personality aspects of learners. Sharing is caring: A constantly balanced approach of communication could fare better for stress reducing and preventing overall burnout.

Therefore the following are suggested for future studies;

The study reported here has important implications for the field and creates a number of interesting research directions. Here are some recommendations:

Longitudinal Studies: Future research should think through potential longitudinal designs for documenting shift in personality, technostress and EE over time. This may help to get a better look at how these variables are engaged all across the course of students' academic processes.

Diverse Populations: Lu et al. 2020 proposed next step of this research work is to interview students from other universities and culturally diverse backgrounds to increase generalizability of findings. Extending the research on technostress and emotional exhaustion, how cultural impacts affect them would be useful to investigate.

Intervention Studies: More studies should be conducted to identify the magnitude of technostress and emotional exhaustion interventions with the specific goal of designing and examining ways of reducing these effects. The analysis of such programs may help educational institution to use practical evidence for enhancing effectiveness of these programs.

Exploring Additional Variables: Future research could also examine other possible mediators for example social support received, coping resources, and academic achievement to establish enhanced perspectives on factors that result in students' EE.

In light of these areas, future studies can consequently elaborate the findings of this research and enhance the knowledge on the patient of the relationship amid personal characters, technostress, and weariness, so assisting in the enhancement of support structures in academic contexts.

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