

DIGITAL DISTRESS AND DIGITAL EUSTRESS AS PREDICTORS OF ACADEMIC ENGAGEMENT AND ACADEMIC BURNOUT: THE MODERATING ROLE OF PSYCHOLOGICAL CAPITAL AMONG UNIVERSITY STUDENTS

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ABSTRACT

The present study focused on the relationships between digital distress, digital eustress, academic engagement, academic burnout, and moderating role of Psychological Capital among university students in Pakistan. In this study the Anila Psychological Capital Scale was translated from Urdu into English and shortened version of the scale was developed then confirmatory factor analysis (CFA) was performed to investigate the psychometrics properties of the shortened scale. Apart from that the digital Eustress scale was adapted from work related context to an academic related context for use with university students. The research design adopted was a cross-sectional correlational research design with the data collection instruments used being the Digital Stress Scale (DSS) (Steele et al., 2020), Techno-Eustress Scale (TES) (Nascimento et al., 2020), Anila Psychological Capital Scale Short Version (APC-SV) Utrecht Work Engagement Scale–Student Version (UWES-S) (Schaufeli et al., 2002) and Maslach Burnout Inventory–Student Survey (MBI-SS) (Maslach et al., 2001). The results indicated that digital distress and digital eustress greatly predicted academic engagement and academic burnout. The psychological capital fully moderated the link between digital distress and academic engagement and link between digital eustress and academic burnout. However, no significant moderation was observed between digital eustress and academic engagement or between digital distress and academic burnout. The findings in this study are in line with the Job Demands–Resources (JD-R) model (Bakker & Demerouti, 2001), which suggests that the role of technology-related experiences in students may be either as psychological demands or motivational resources, depending on the students' personal resources.

1. INTRODUCTION

The use of digital technology has become an integral part of the higher education landscape, reshaping the ways in which university students interact with information, communicate, engage in their studies and work with instructors and other students. The advancement of online learning systems, cell phones, virtual classrooms, and learning administration systems have made education more obtainable and versatile. But with the rise in digital technology, there are also mental issues that need to be addressed. Every student is expected to be working with and engaged in digital communication, to be responsive to such communication, to be able to work on several digital tasks at the same time, and to absorb and process significant amounts of information while working on academic tasks. While technology can have a positive impact on learning experiences, it can also lead to

psychological stress from being constantly connected, multitasking and information overload (Hefner & Vorderer, 2016; Steele et al., 2020). Digital stress is the psychological stress caused by dealing with technology, digital communication and expectations of digital interaction. Steele et al. (2020) defined digital stress as a multi-dimensional construct which is significant to the adolescent and young adult. In higher education, students often face the pressure of being 'on' all the time, communicating quickly and having to deal with multiple 'information streams'. Importantly, digital stress can be felt as a negative stress (digital distress) or as a positive stress (digital eustress) depending on the perception and response of the individual to the demands of technology.

Digital Stress

Digital distress is when the demands the technology place on a person's coping mechanisms are greater than the person's ability to handle the technology and/or the demands are experienced as too challenging or too overwhelming. These are common types of stress such as: Stress due to availability, approval anxiety, fear of missing out (FoMO), and notification overload (Steele et al., 2020). Availability stress is the anxiety about being always available via digital channels and approval anxiety is about how one is perceived online by others. In the same way, FoMO is the push to constantly check digital platforms to prevent missing academic or social information, whereas too many notifications result in a distraction from focus and information.

Digital Eustress

While the effects of technology have been extensively studied, there are also positive experiences that can be gained from technology. Digital eustress is the level of eustress that comes from technology that is perceived as manageable, motivating and growth-enhancing. In higher education, students are often asked to learn new software, use virtual learning environments, do Internet research, and work collaboratively on the Internet. If students can view these technological demands as attainable, they may increase their confidence, competence and problem-solving skills. This can, therefore, enhance student's engagement in learning activities and motivate students to engage in the learning tasks more actively, as a result of digital challenges.

Academic Engagement

Academic engagement is defined as students' 'active involvement' and 'psychological commitment' to learning. Schaufeli et al (2002) defined engagement as the students' willingness to exert effort, persist in the face of adversity and stay cognitively engaged in academic activities, in terms of four components: vigour, dedication, absorption and engagement. Engagement has been linked on a consistent basis to academic success, intrinsic motivation, and well-being (Karimi & Sotoodeh, 2020). Digital technology can have a positive and/or negative impact on academic engagement. Similarly, digital eustress can boost engagement by engaging students in developing technological skills, problem-solving academic challenges, and meeting learning objectives. On the contrary, digital distress can be a hindrance in engagement by causing constant connectivity, excess notifications and information overload to distract from concentration. In previous studies, the use of technology has been shown to be a stressor that causes emotional exhaustion and reduced academic engagement among university students (Wang et al., 2020).

Digital Stress and Academic Burnout

Academic burnout has been described as a multidimensional syndrome of emotional exhaustion, cynicism about academic work and a decreased academic effectiveness (Maslach et al., 2001; Schaufeli et al., 2002). Burnout students tend to have low energy, lose the enthusiasm for school work and may feel less capable of managing academic responsibilities. Burnout has been linked with various negative consequences, such as poor academic performance, dropout intention, anxiety, and depression (Calcatin et al., 2022; Qin et al., 2025). Further, demands of technology may exacerbate burnout in higher education. Expectations of constant access to the digital realm, information overload, continuous connectivity and technological complexity can place a psychological burden on students. Technostress impairs academic productivity and leads to a decrease in concentration and increase in burnout, according to Anderson and Smith (2023).

Theoretical Framework: Job Demands–Resources Model

The Job Demands – Resources (JD-R) model is a suitable theoretical lens for understanding the impact of digital stress on students' performance in school. Bakker and Demerouti (2001) suggest that too many demands trigger a

health-impairment process which leads to an increase in feelings of exhaustion and burnout, while too little in the way of personal and environmental resources lead to feelings of motivation and engagement. In higher education, technological demands like notification overload, constant online communication, digital complexity and information overload can be viewed as academic demands. If students' coping resources are insufficient to meet these demands, it can result in digital distress, disengagement and burnout. The JD-R model thus suggests that students' responses to similar digital environments could differ based on the resources they have access to (Bakker & Demerouti, 2001).

Psychological Capital

Psychological Capital (PsyCap) is a positive psychological resource that is characterized by self-efficacy, hope, optimism, and resilience (Luthans et al., 2015). These personal resources help people face difficulties with confidence, stay motivated, bounce back from failures and have positive expectations. Self-efficacy is a person's confidence that they have the skills to complete tasks successfully, and this sense of self-efficacy can support students in dealing with less familiar digital technologies (Shaikh et al., 2023). Hope facilitates goal-directed thinking and endurance when challenges occur (Snyder, 2002; Snyder et al., 2000), and optimism fosters positive expectancies for future outcomes. Resilience helps the individual to bounce back from setbacks and thrive in the face of changing academic demands (Masten, 2001; Rutter, 2006). Linkages between PsyCap and positive academic and psychological outcomes have been consistently found in previous studies. Students who score higher on PsyCap tend to engage more with their studies, experience lower levels of stress, report lower levels of burnout, and achieve higher academic performance (Avey et al., 2008; Liu & Du, 2024; Salavou et al., 2023; Wang et al., 2023). The results indicate that students' psychological resources can be used to support them in facing the challenges of technology more effectively.

Psychological capital as a moderator

The digital stress-academic outcomes relationship can be mediated by psychological capital as it impacts the meaning-making and reactions of students to technology. Students who have high PsyCap are more likely to interpret digital challenges as opportunities to learn than as stressors. Increased self-efficacy improves confidence with use of digital technology, resilience helps to overcome failures or difficulties with technology, hope helps to continue to pursue academic objectives and optimism helps to maintain positive expectations for the face of challenges. This is in line with the JD-R model (Bakker & Demerouti, 2001), and Conservation of Resources Theory (Hobfoll, 1989) stressing the importance of personal resources in buffering against stressors' negative impact. Thus, the negative effect of digital distress can be buffered by PsyCap, and the positive effect of digital eustress can be reinforced by PsyCap, which can help to avoid burnout. Therefore, digital distress may be mitigated by PsyCap while digital eustress may be enhanced by PsyCap, thereby aiding to reduce digital burnout. Despite the fact that previous studies have shown that technostress negatively correlates with PsyCap (Efilti & Çoklar, 2019) and positively correlates with academic engagement and academic burnout (Avey et al., 2011; Luthans et al., 2015), few studies have investigated the moderating role of PsyCap between digital distress, digital eustress, academic engagement, and academic burnout among university students.

Rationale

Although there is an increasing interest in the area of stress related to technology, there are a number of important gaps. First, previous studies have largely concentrated on the negative effects of technology, only a small amount of which have examined the positive and motivating effects of digital eustress. Second, to date there have been few studies that have explored both digital distress and digital eustress in relation to academic engagement and academic burnout. Third, the moderating effects of Psychological Capital in these relationships have been little studied. The present study also fills an important gap in the context as it includes university students of Pakistan. The majority of the evidence that exists comes from Western countries where education and cultural values are different from those of the collectivistic societies. The impact of digital stress and academic well-being may vary from students in Pakistan according to their family expectations, academic competition, and social obligations. Moreover, with the ongoing digitalisation of higher education due to the Covid-19 crisis, online learning, virtual communication and digital platforms are part and parcel of university life. In considering digital distress and digital eustress in the context of this, one has a more balanced view of the impact of technology on

student engagement and burnout, as well as a clearer view as to the possible protective function of Psychological Capital.

Hypotheses

H1: Digital distress will significantly predict academic engagement and academic burnout.

H2: Digital eustress will significantly predict academic engagement and academic burnout.

H3: Psychological capital will moderate the relationship between digital eustress and academic engagement.

H4: Psychological capital will moderate the relationship between digital distress and academic engagement.

H5: Psychological capital will moderate the relationship between digital eustress and academic burnout.

H6: Psychological capital will moderate the relationship between digital distress and academic burnout.

II. METHOD

Participants

The study's population consisted of university students. The sample was obtained through convenient sampling at a university in Sargodha. Sample from this phase was composed of University students ($N = 400$). The sample comprised males ($n = 152$) and females ($n = 248$) from the city of Sargodha. Of these, (343) were in undergraduate programs, (49) were pursuing master's degrees, and (8) were doctoral candidates. The ages of participants varied from 17 to 28 years, with (145) being 17–19 years old, (161) falling between 20–22 years, (55) aged 23–25 years, and (39) in the 26–28 year range. Students from various semesters participated, including those from the 1st–2nd semester ($n = 201$), 3rd–4th semester ($n = 114$), 5th–6th semester ($n = 36$), and 7th–8th semester ($n = 49$).

Measures

[I] Anila Psychological Capital Scale for Adolescents Short Version composed of 5 items translated by Irsa et al. (2026) in Urdu was used to measure psychological capital. **[II]** The Techno-Eustress Scale used in this study was adapted from the ICT working environment framework presented by Califf et al. (2020). **[III]** The Academic Engagement Scale (USEI) developed by Maroco et al. (2016) consisted of 15 items. Item 6 is negatively worded. The scale employs a 5-point Likert system that ranges from 1 = Never, 2 = A few times, 3 = Occasionally, 4 = Mostly, to 5 = Always. **[IV]** Maslach Burnout inventory (MBI-SS) created by (Maslach et al., 2001). consists of 15 items assessing Exhaustion (Items 1,4,6,8,12), Cynicism (Items 2,9,10,14), and Academic Efficacy (Items 3,5,7,11,13,15), where Efficacy items are scored in reverse. **[V]** The Digital Stress Scale (DSS) created by Steele et al. (2020) contains 24 items that assess stress associated with social media and digital interactions. The scale comprises aspects of Availability Stress (Items 1, 4, 7, 8, 16, 18), Approval Anxiety (Items 3, 9, 17, 20, 22, 24), Fear of Missing Out (Items 5, 10, 13, 21), and Notification Overload (Items 2, 6, 11, 14, 15, 19, 23). The response format is a 5-point Likert scale that goes from 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, to 5 = Always.

Procedure

Initially, informed consent was obtained from the participants, confirming their readiness to take part in the study. They were guaranteed that the study would not cause any physical, financial, or psychological harm, and that the details they would share would be kept confidential. Demographic details were requested from them using a demographic data form. Subsequently, they received verbal guidance in addition to written directions about how to respond to the instruments. After data collection participants were thanked for their support, time and genuine responses.

III. RESULTS

The current research aimed to understand digital eustress and digital distress as predictors of academic engagement and academic burnout, with moderating role of psychological capital. Results were analyzed by IBM SPSS 21 software. Pearson Correlation was applied to examine relation between variables of study. t-test and One-way ANOVA were applied to evaluate the mean differences in demographic variables.

Table I: Descriptive Statistics and Psychometric Properties of Scales in Study

Scales	<i>M</i>	<i>SD</i>	Range	α
Digital Distress	77.03	13.46	48-100	.91
Digital Eustress	27.71	5.69	15-41	.74
Academic engagement	48.63	9.62	31-75	.86
Academic burnout	40.66	9.22	25-60	.89
Psychological Capital	17.18	3.73	9-24	.85

Table 1 manifests mean, standard deviation and alpha reliabilities of scales that were used in present study. The value of Cronbach's α for all variables used in current study ranges from .74 to .91. Reliabilities of all scales were satisfactory where digital eustress has lowest reliability of .74 and digital distress has highest reliability of .91.

Table II: Multiple Regression Showing the Effect of Digital Eustress and Digital Distress on Academic Engagement

Variable	<i>B</i>	β	<i>SE</i>
(Constant)	11.69***		2.08
Digital Eustress	.73***	.43***	0.09
Digital Distress	.22***	.30***	.04
R^2	.47***		

*** $p < .001$

Table 2 indicated that 47% of the variance in academic engagement was explained by digital distress and digital eustress with $F(2, 398) = 174.29, p < .001$. Overall, the regression model was significant. Digital eustress emerged as a positive predictor of academic engagement ($\beta = .43, p < .001$). Digital distress emerged as a positive predictor of academic engagement ($\beta = .30, p < .001$).

Table III: Multiple Regression Showing the Effect of Digital Eustress and Digital Distress on Academic Burnout

Variables	<i>B</i>	β	<i>SE</i>
(Constant)	78.57***		1.91
Digital Eustress	-.56***	-.35***	0.08
Digital Distress	-.29***	-.42***	.03
R^2	.51***		

*** $p < .001$

Table 3 indicated that 451% of the variance in burnout was explained by digital distress and digital eustress with $F(2, 398) = 207.07, p < .001$. Overall, the regression model was significant. Digital eustress emerged as a negative predictor of academic burnout ($\beta = -.35, p < .001$). Digital distress emerged as a negative predictor of academic burnout ($\beta = -.42, p < .001$).

Table IV: Psychological Capital as a Moderator in a Relationship between Eustress and Academic Engagement

Predictors	<i>B</i>	95% CI	
		<i>LL</i>	<i>UL</i>
(Constant)	16.44	-11.23	44.12
Eustress	.75	-.27	1.77
Psychological Capital	.05	-.21	.32
Eustress x Psychological Capital	.00	-.00	.01
Low	-	-	-
Medium	-	-	-
High	-	-	-
R^2	.45***		
<i>F</i>	108.08***		
ΔR^2	.01		
ΔF	.20		

*** $p < .001$

Table 4 examined the moderating role of psychological capital in the relationship between eustress and academic engagement among participants. The results indicated a non-significant negative relationship between eustress and academic engagement ($B = .75, p > .05$). Psychological Capital also showed a non-significant positive relationship with academic engagement ($B = .05, p > .05$). Furthermore, the interaction term Eustress x Psychological Capital was non-significant ($B = .00, p > .05$) indicating that psychological capital did not moderate the relationship between digital eustress and academic engagement. The overall model explained 45% of the variance in academic engagement ($R^2 = .45, p < .001$), with an F -statistic of 108.08 ($p < .001$). However, the interaction term did not contribute additional variance to the model ($\Delta R^2 = .01, \Delta F = .20$)

Table V: Psychological Capital as a Moderator in a relationship between Digital Distress and Academic Engagement

Predictors	B	95% CI	
		LL	UL
(Constant)	94.81***	60.79	128.83
Distress	-.62**	-1.06	-.19
Psychological Capital	-.82***	-1.18	-.46
Distress x Psychological Capital	.01***	.01	.02
Low	82.16***	.16	.35
Medium	103***	.41	.55
High	114***	.50	.70
R^2	.41***		
F	92.98***		
ΔR^2	.03***		
ΔF	.22.67***		

** $p < .01$, *** $p < .001$

Table 5 examined the moderating role of psychological capital in the relationship between digital distress and academic engagement among participants. The results indicated a non-significant negative relationship between distress and academic engagement ($B = -.62, p < .001$). Psychological Capital also showed a significant negative relationship with academic engagement ($B = -.82, p < .001$). Furthermore, the interaction term Distress x Psychological Capital was significant ($B = .01, p < .001$) indicating that psychological moderate the relationship between distress and academic engagement. The overall model explained 41% of the variance in academic engagement ($R^2 = .41, p < .001$), with an F -statistic of 92.98 ($p < .001$). However, the interaction term contributes additional variance to the model ($\Delta R^2 = .03***, \Delta F = .22.67***$)

Figure I: Graph for Psychological Capital as a Moderator in a relationship between Distress and Academic Engagement

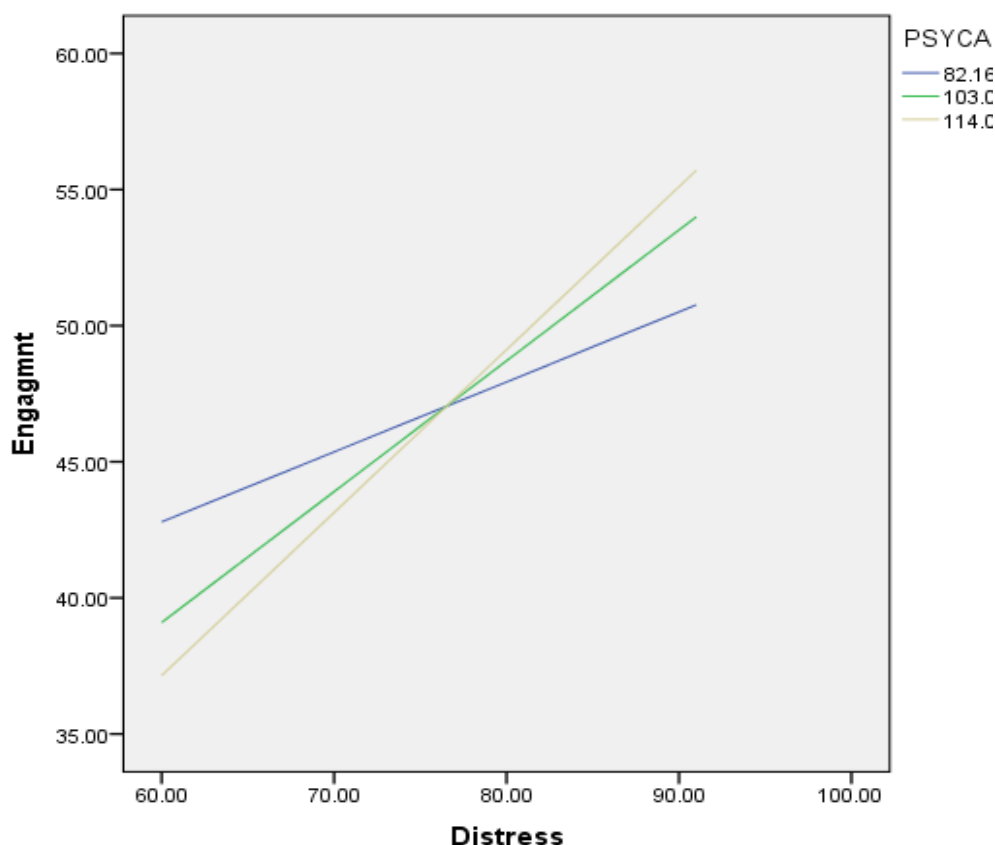


Figure 1 shows the moderating role of psychological capital in a relationship between distress and academic engagement.

Table VI: Psychological Capital as a Moderator in a relationship between Digital Eustress and Academic Burnout

Predictors	B	95% CI	
		LL	UL
(Constant)	120.11***	95.32	144.90
Eustress	-2.12***	-3.13	-1.30
Psychological Capital	-.54***	-.77	-.30
Eustress x Psychological Capital	.01**	.00	.02
Low	82.16***	-1.40	-.92
Medium	103***	-1.02	-.77
High	114***	-.89	-.62
R ²	.52***		
F	143.12***		
ΔR ²	.01**		
ΔF	8.79**		

** $p < .01$, *** $p < .001$

Table 6 examined the moderating role of psychological capital in the relationship between eustress and academic burnout among participants. The results indicated a significant negative relationship between eustress and burnout ($B = -2.12$, $p < .001$). Psychological Capital also showed a significant negative relationship with burnout ($B = -.54$, $p < .001$). Furthermore, the interaction term Eustress x Psychological Capital was significant ($B = .01$, $p < .01$) indicating that psychological capital moderates the relationship. The overall model explained 52% of the variance

in burnout, with an F -statistic of 143.12 ($p < .001$). However, the interaction term contributes to additional variance to the model ($\Delta R^2 = .01^{**}$, $\Delta F = 8.79^{**}$).

Figure II: Graph for Psychological Capital as a Moderator in a relationship between Eustress and Academic Burnout

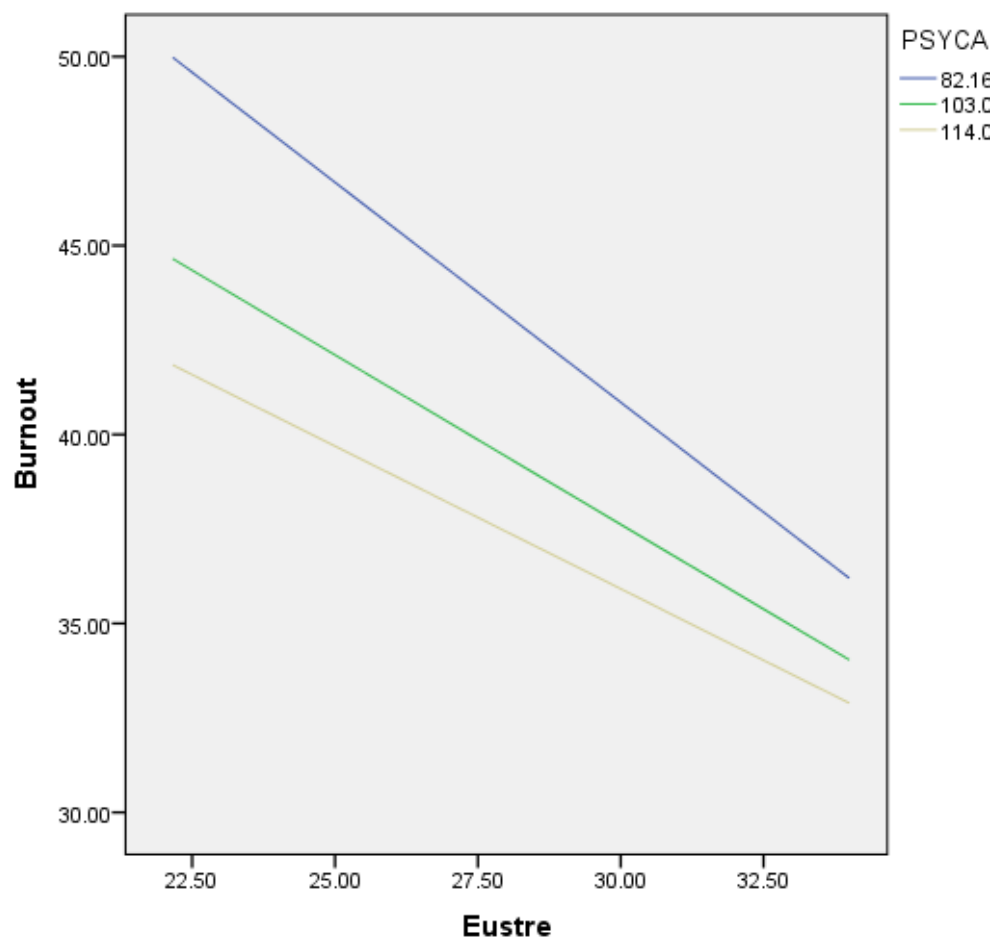


Figure 2 shows the moderating role of psychological capital in a relationship between eustress and academic burnout.

Table VII: Psychological Capital as a Moderator in a relationship between Digital Distress and Academic Burnout

Predictors	B	95% CI	
		LL	UL
(Constant)	95.99***	65.11	126.87
Distress	-.57**	-.97	-.18
Psychological Capital	-.26	-.59	.06
Distress x Psychological Capital	.00	-.00	.01
Low	-	-	-
Medium	-	-	-
High	-	-	-
R^2	.69***		
F	119.14***		
ΔR^2	.00		
ΔF	.91		

** $p < .01$, *** $p < .001$

Table 7 examined the moderating role of psychological capital in the relationship between digital distress and burnout among participants. The results indicated a significant negative relationship between distress and burnout ($B = -.57, p < .01$). Psychological Capital also showed a non-significant negative relationship with burnout ($B = -.26, p > .05$). Furthermore, the interaction term Distress x Psychological Capital was non-significant ($B = .00, p > .05$) indicating that psychological capital did not moderate the relationship between distress and burnout. The overall model explained 69% of the variance in academic engagement ($R^2 = .69, p < .001$), with an F -statistic of 119.14 ($p < .001$). However, the interaction term did not contribute additional variance to the model ($\Delta R^2 = .00, \Delta F = .91$).

Figure III: Graph for Psychological Capital as a Moderator in a relationship between Distress and Academic Burnout

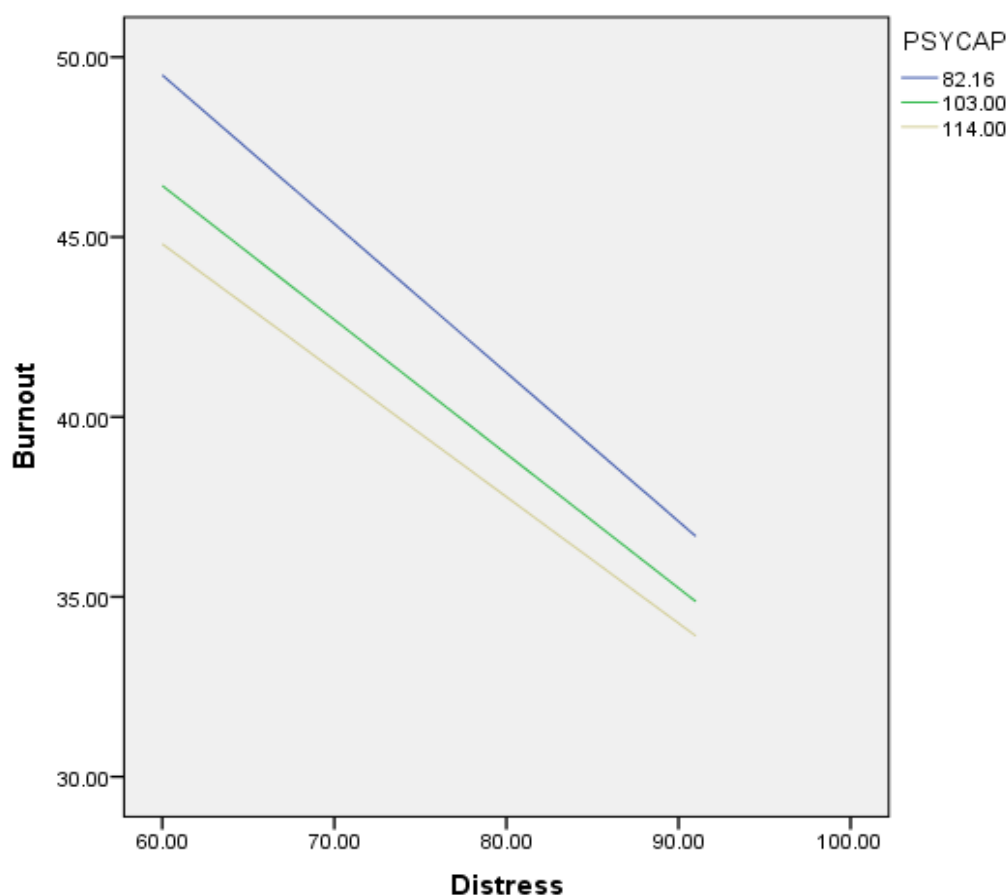


Figure 3 shows the moderating role of psychological capital in a relationship between distress and academic burnout.

DISCUSSION

The aim of the present study was to explore the relationship between emotional abuse with suicidal behavior among university students of Multan, Pakistan and to see if emotional intelligence acts as moderator in this relationship. Results support all three hypotheses of the study and give several theoretically interesting results. The high correlation between emotional abuse and suicidal behavior ($r = 0.765, p < 0.01$) is in line with a vast international literature. Liu and colleagues 2017 showed using a meta-analysis, the largest population-level effect of emotional abuse on suicidality compared to other types of child maltreatment. This correlation was explained by Wang and colleagues (2022) by internalization of negative self-perceptions that occurs when people face persistent experiences of humiliation, threat, and rejection, leading to their internalization of the constructs of perceived burdensomeness and thwarted belongingness, which are central to Joiner's (2005) interpersonal theory. These results are reinforced by the direct link between emotional abuse and suicidal behavior ($\beta = 0.346, p < 0.001$). The REACH scores were higher in relation to higher scores on the SBQ-R (suicidal risk) scores, which is

consistent with previous research by Neelma et al (2025). showing that devaluing was the most significant subtype of maltreatment for suicidal outcomes in both clinical and non-clinical samples and across gender groups. Importantly, this association remained robust even after the moderating effect of emotional intelligence was factored in, thus highlighting the extreme impact and direct relationship between emotional the present study was set up to explore the interconnections between digital distress, digital eustress, academic engagement, academic burnout and the mediation effect of Psychological Capital (PsyCap). Overall, the results confirmed the proposed conceptual framework.

The digital distress and digital eustress were both significant predictors of academic engagement and academic burnout, and PsyCap was a significant moderator of the relationships between digital distress and academic engagement, as well as between digital eustress and academic burnout. However, there was no significant moderation in the relationships between digital eustress and academic engagement, or digital distress and academic burnout by PsyCap. The results indicate that digital experiences are poly-dimensional in students' experiences; that is, they are both as resources and as demands in learning and increasingly in digital learning environments (Bakker & Demerouti, 2001; Luthans et al., 2015). The results showed that digital distress was a significant predictor of academic engagement. Steele et al. (2020) claim that digital distress is usually connected with technology related pressure, information overload and constant connectivity, but this could be connected to the rising involvement of technology in higher education. Digital platforms play a pivotal role for university students in delivering lectures, issuing assignments, facilitating communication among students and teachers, and facilitating online learning. Therefore, learners with a higher level of academic engagement are likely to experience higher degrees of digital demands.

Digital distress is not necessarily a symptom of academic disengagement, but can signal the opposite of disengagement intense academic engagement within technology-rich contexts. In line with the literature that has been published on digital technology, this interpretation reflects the fact that digital technologies at the same time promote learning and pose psychological demands (Hefner & Vorderer, 2016). Thus, digital distress is not solely a negative educational outcome, but rather is seen as a result of higher rates of digital academic engagement. In addition, digital eustress was a major predictor of academic engagement, which suggests that technology-related challenges can be motivating to students when they feel like they have a chance of success. Digital eustress is a positive response to the challenges of technology that facilitate learning, competence and problem solving, as opposed to digital distress (Califf et al., 2020). Students at the university are often faced with new software, systems of online learning and platforms of virtual collaboration. Addressing these challenges successfully can help build confidence and enhance an active involvement in academics. The finding is consistent with the Job Demands–Resources (JD-R) model which suggests that challenging demands could lead to an increase in motivation when adequate personal resources are present (Bakker & Demerouti, 2001). In this context, it is important to consider digital technology as a form of stress as well as a means of learning and growth.

As in previous studies, academic burnout was predicted of digital distress. Burnout is an emotional state consisting of three symptoms: decreased academic effectiveness, cynicism and emotional exhaustion (Maslach et al., 2001; Schaufeli et al., 2002). Academic tasks are digitalised and are not just done in the classroom anymore, as students are constantly notified, assignments are sent online and communication is digital. These repeated demands can lead to higher amounts of cognitive overloading and lower chances for psychological recovery. This result aligns with the correlation between technostress and other outcomes such as impaired concentration, emotional épuisement, and burnout among university students (Anderson & Smith, 2023). However, as this study was of a correlational design, inferences regarding cause and effect cannot be made. Longitudinal studies would be beneficial to see if digital distress becomes more of a problem with time or if academically exhausted students feel more stressed by digital distress. In both directions, the results indicate that the technology-related demands should be taken into account when studying students' psychological well-being, in addition to the traditional academic demands. The results showed that while digital eustress was a significant predictor of academic burnout, it does not necessarily have to be positive or negative. Digital eustress is the students' view of technology being a manageable challenge that is leading to learning and skill development.

Mastering these digital platforms, learning how to troubleshoot technological issues and adjusting to digital learning environments can improve students' skills and effectiveness, and minimize the risk of burn-out. This seems to confirm with the Job Demands–Resources (JD-R) model, which suggests that demanding jobs can be motivating when there is sufficient personal resources (Bakker & Demerouti, 2001). The following points, therefore, should be taken into account by universities: maximize the opportunities for students to be digitally competent without putting them under unnecessary digital pressure, so as to create supportive digital learning environments. There were moderations in the relationships examined in this study, with psychological capital (PsyCap) serving as a partial mediator. In particular, digital distress and academic engagement were found to be significantly correlated, but this relationship was moderated by PsyCap, and the same was observed for the correlation between digital eustress and academic burnout. These results suggest that students' responses to the technology-related demands are related to their personal psychological resources. PsyCap is the combination of self-efficacy, hope, optimism and resilience (Luthans et al., 2015). High PsyCap students tend to have more positive attitudes towards technology, when challenges occur, they don't give up and when things don't workout, they are able to bounce back. As such, they might be more able to meet digital needs without significant decreases in academic performance.

The results corroborate the JD-R model, which explains that personal resources are important factors that influence the response to the demands (Bakker & Demerouti, 2001). They also correspond with the Conservation of Resources Theory (Hobfoll, 1989) which suggests that people utilize psychological resources to manage the stressful circumstance. The positive relationship between PsyCap with academic engagement, psychological well-being and reduced burnout have also been reported in previous studies (Avey et al., 2008; Avey et al., 2011; Wang et al., 2023). The present findings broaden this literature by showing the buffering role of PsyCap in the context of higher education on some digital stress factors. It is not all of the following suggested moderation effects that were supported. There were no significant moderation effects for the relationship between digital eustress and academic engagement, and the relationship between digital distress and academic burnout, when psychological capital was added. The results have implications about being a universal preventive factor in all technology-related experiences.

Theoretical Implications

The present study makes a number of important contributions to the theory. The first is that it helps to differentiate between digital distress and digital eustress, helping to make sure that experiences with technology are not always negative. Second, it generalizes the JD-R model into a domain that is more digitally oriented to higher education by providing an example of how the demands of technology might either support or hinder experiences, dependent on one's personal resources (Bakker & Demerouti, 2001). Third, these findings advance the principles of positive psychology by showing the presence of a selective moderating influence of PsyCap instead of a universal buffering one. In addition, the study instruments were translated and contextualized to add support to the cross-cultural research on digital stress by collecting evidence from Pakistani university students, who have been studied comparatively less than others. The results have relevant implications for the institutions of higher learning. Universities need to be aware of the potential of digital technologies to offer educational opportunities and psychological challenges. By having clear communication policies, keeping unnecessary communication to a minimum, offering easy access to technical support and keeping online learning systems user friendly, institutions can minimize unnecessary digital stress. Also, interventions to increase Psychological Capital can be implemented at the university level. Digital academic workload training programs that would be focused on self-efficacy, resilience, optimism and hope can enhance students' capacity in coping with digital academic workload and their engagement in academic studies, and decrease their vulnerability to digital academic workload burnout (Luthans et al., 2015). But it's not just the students' responsibility to create supportive digital learning spaces; institutional practices should also help to create supportive digital learning spaces.

Limitations

There are some limitations in the present study which should be taken into consideration in the interpretation of the results. First of all, the study used a cross-sectional correlational research design that does not allow the drawing of causal inferences between digital distress, digital eustress, academic engagement, academic burnout and psychological capital. These relationships need to be identified more precisely by conducting studies, either

longitudinal or experimental. Second, the study only used self-report questionnaires, which could have resulted in response biases including social desirability, recall and common method variance. While there were validated instruments that were used, the participants' responses may not have fully captured their digital experiences and academic behaviours. Third, the sample was limited to the students of universities of Pakistan, which may restrict the generalisability of the results for students in other cultural, educational and geographical backgrounds. This study may be affected by differences in cultural beliefs in technology use, academic expectations, coping, and other factors. Fourth, the study only focused on Psychological Capital as a moderator, and other significant characteristics and factors of the person and context, such as personality traits, coping strategies, digital literacy, social support, academic load and institutional resources were not taken into account. Students' reactions to digital stress can also be affected by these factors. Lastly, this study emphasized mostly academic engagement and academic burnout as a result of digital stress. The present study was not able to address other psychological and educational variables such as academic performance, life satisfaction, mental health, sleep quality and technology addiction, which should be explored further.

Future Research Recommendations

For future research, it is recommended to use longitudinal or experimental research design to gain a deeper understanding of the causal relationships between digital distress, digital eustress, psychological capital, academic engagement and academic burnout. These designs would help to provide more evidence of the ways in which these variables change and relate to each other over time. Researchers are encouraged to provide a more diverse sample of students from a variety of universities, provinces and countries to increase the generalizability of the results and the opportunity to explore cultural variations in student's digital experiences. More studies in the future can also examine other personal and environmental resources that could be mediators or moderators between digital stress and academic outcomes such as: resilience, coping, digital literacy, emotional intelligence, social support, mindfulness, and institutional support. The effects of digital stress on other important outcomes should also be investigated in the future, as these outcomes will contribute to a more holistic understanding of digital stress affecting students, including academic performance, psychological wellbeing, anxiety, depression, sleep quality, technology addiction and life satisfaction. Last but not least, qualitative or mixed-methods research might offer a better understanding of students' perceptions and coping strategies of digital distress and digital eustress in the context of their academic activities at the university. They could be useful for describing the mechanism of the quantitative relationship that were found in the present study, and in drawing in the development of targeted interventions.

IV.CONCLUSION

This study makes a significant empirical contribution in the understanding of emotional abuse and suicidal behavior and emotional intelligence of young adults in Pakistan. There is a significant direct effect of emotional abuse on suicidal behavior and emotional intelligence is a significant protective moderator of this relationship, as showed by results. The results are important for mental health service providers, university counselors, and public health policy makers. Student wellness courses and early intervention procedures should incorporate courses to develop emotional intelligence skills, including the ability to recognize, regulate and respond to the emotions of others. Identifying emotionally abused young adults early and providing emotional skill building targeted to that group might be an effective way to reduce the risk of suicide among this group of adolescents. The limitations and future directions are now presented. The limitations and future directions are now presented. A few caveats are in order. It is cross-sectional (so causal inference is limited) and self-reported data, and there may be response bias, particularly with the sensitive topics. The sample consisted of university students and may not be representative of rural populations or young adults who are not in university. The study instruments were also administered in English instead of Urdu, which might have caused some comprehension problems experienced by some participants. For future studies, a longitudinal study design would be useful, Urdu translation of instruments would be required, and a qualitative approach would be helpful for the understanding of the lived experiences of emotionally abused youth. There is a need for experimental and intervention studies to examine the effectiveness of emotional intelligence training as a suicide prevention intervention.

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