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PSYCHOPATHY AND CYBERBULLYING: THE ROLE OF SELF-CONTROL AS MODERATOR AMONG PROBLEMATIC SMARTPHONE USERS

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KEYWORDS	ABSTRACT
Psychopathy; Dark Personality Traits; Self-Control; Cyberbullying, Smartphone Use; Youth	The widespread ownership of smartphones among youth has led to an increase in cyberbullying. Studies have shown that smartphone addiction is linked to psychopathic personality traits as well as significantly predicts cyberbullying. However, self-control is considered a protective factor that can promote responsible smartphone use. Research aimed to investigate role of self-control in association of psychopathy & cyberbullying among problematic smartphone users in Pakistan. The data was collected using a multi-stage sampling technique. Screening criteria was modified from 4-hours of the smartphone usage to 6-hours daily to screen the problematic smartphone usage. 1055 young individuals were approached, and 254 were not screened as problematic users of smartphones. In second stage, 801 problematic smartphone users, 383 were male (47.9%), 418 were females (52.1%) between ages of 18-23. Data was collected using three assessment measures: (i) subscale psychopathy of short dark triad test, (ii) revised self-control scale, and (iii) subscale cyberbullying of the forms of bullying. Study reveals positive relationship amid psychopathic personality traits and cyberbullying. Study sheds light on link between psychopathy and cyberbullying and emphasizes the need for interventions that target individuals with such personality traits to prevent or stop cyberbullying in particular context.
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INTRODUCTION

Smartphones are a necessity now, especially for youth, and their use is still increasing globally (Köse & Murat, 2021). The smartphone ownership among the youth worldwide is around 77% (Shoukat, 2019). However, in extreme cases, the smartphone use can become problematic and is associated with specific personality traits, such as dark personality traits (Kuyulu & Beltekin,

2020). Among dark triad personality traits, psychopathy (PSY) is typically measured offensive, social manipulator, and apathetic (Paulhus & Williams, 2002). Additionally, PSY is personality disorder characterized by cluster of the traits and behaviors, including (i) lack of empathy, (ii) shallow emotions, (iii) impulsivity, (iv) deceitfulness, (v) irresponsibility (vi) grandiosity as well as (vii) lack of remorse/guilt (Stark, Bobadilla, Michael, Saturn & Portner, 2023). Still, studies have revealed notable correlation between PSY and act of cyberbullying (Balta, Jonason, Denes, Emirtekin & Griffiths, 2019; Chung, Morshidi, Yoong & Thian, 2019; Kircaburun, Süral, March, Balta, Emirtekin & Griffiths, 2021; Servidio, Griffiths & Demetrovics, 2021; Farhat, Aslam, Arif & Ahmed, 2022). Cyberbullying (CB) refers to using electronic communication technologies, such as social media, text messages, emails, online forums, to harass, intimidate, humiliate someone. It involves using the technology repeatedly to harass, threaten, or harm individuals, typically to cause emotional distress or harm (Güllü, Karahan & Akçay, 2023). But, exercise self-control can serve as powerful tool to prevent and stop CB (Dzunnuroin, Julianingrum & Rahmawati, 2023).

Self-control (SC) regulates thoughts, emotions, and behavior to achieve the desired outcome or goal, even in difficult or tempting circumstances. It involves managing the impulses, delaying gratification, and making decisions based on long-term considerations rather than immediate desires or feelings (Strayhorn, 2002). Smartphones have rapidly increased significantly among youth, with worldwide ownership at around 77%. However, excessive use of smartphones can lead to problematic behaviors, primarily when associated with specific personality traits such as PSY. PSY is characterized by the cluster of traits and behaviors, including a lack of empathy, impulsivity, and a desire for power and control over others. The studies have shown a notable correlation between PSY and CB, which involves using the technology to harass, intimidate, or humiliate someone. Exercising SC can be the powerful tool to prevent and stop CB. SC involves regulating thoughts, emotions, and behavior to achieve the desired outcome or goal, even in difficult or tempting circumstances. Strength Model by Baumeister and Vohs (2007) provides a theoretical framework that explains present study by proposing that SC is a limited resource that can be depleted with use but can also be strengthened through practice. Model suggests that SC can act as a moderator in the context of CB, helping to prevent/stop the harmful behavior. Engaging in SC can restrain undesirable impulses and enable individuals to behave suitably. Therefore, at the same time, lack of SC can relate to CB. Higher levels of SC eliminate or reduce CB.

Regular practice of SC can increase one's overall capacity for SC, making it easier to exert SC in the future. However, engaging in SC can deplete one's resources, making it more challenging to exercise SC in subsequent situations. In the context of CB, the young smartphone user who exercises SC by refraining from harmful behavior may deplete their SC resources, making it more difficult to resist future temptations to engage in CB. Nevertheless, with regular practice of SC, individual may strengthen their overall capacity for SC, making it easier to resist future temptations and avoid engaging in CB altogether (Cho & Glassner, 2020). In the context of cyberbullying (CB), studies have shown that the low levels of SC are associated with a higher likelihood of engaging in CB, while higher levels of SC can reduce or eliminate the behavior. Recent research suggested that young individuals who use smartphones problematically tend to exhibit high levels of PSY traits and engage in various forms of bullying, including physical, verbal, and CB (Pabian, Backer & Vandebosch, 2015; Orue & Calvete, 2016; Charalampous, Ioannou, Georgiou & Stavrinides, 2021; Alavi, Latif, Ramayah & Tan, 2022). Though very few authentic research, such as study led by Shaikh, Rehman, Amin, Shamim and Hashmani (2021),

has investigated relationship between PSY and CB among problematic smartphone users in Pakistan, research on topic remains limited in Pakistan. So, present study aimed to examine SC's moderating role in the association amid PSY and CB in problematic smartphone users in Pakistan.

Objectives of Study

- ✓ The primary objective of current study is to investigate relationship between PSY, SC, and CB in problematic smartphone users in Pakistan.
- ✓ To investigate moderating role of SC between PSY and CB in problematic smartphone users in Pakistan.

LITERATURE REVIEW

Psychopathy & Cyberbullying

PSY is a personality disorder characterized by callousness, lack of empathy, and a disregard for social norms (Hare, 1991; Skeem & Cooke, 2010). PSY individuals tend to engage in persistent antisocial behavior that may lead to criminal activity (Anderson & Kiehl, 2017). Several studies have found the positive relationship between PSY personality traits and CB, as individuals with these traits may exhibit impulsivity, the desire for power and control over others, and a lack of empathy, all of which can make it easier for them to engage in aggressive and hurtful behavior online (Pabian et al., 2015; Orue & Calvete, 2016; Charalampous et al., 2021; Alavi et al., 2022). Additionally, anonymity and distance technology allows individuals with PSY traits to engage in CB without feeling the immediate consequences of their actions. The lack of the face-to-face interaction may make it easier for them to detach emotionally from the harm they are causing. However, recent research has also suggested that self-control can act as a protective factor and weaken the relationship between PSY personality traits and CB in problematic smartphone users (Dearden & Parti, 2021; Zhang et al., 2021; Kim et al., 2022). So, it can be hypothesized that:

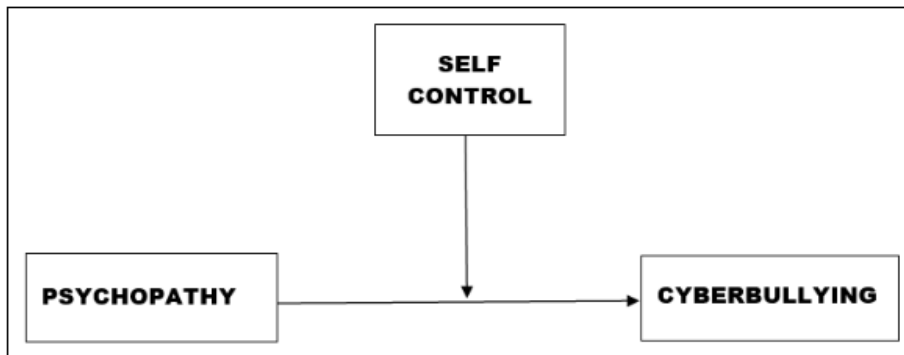
H1: There is likely a significant relationship between psychopathy and cyberbullying among problematic smartphone users in Pakistan.

Self-control as a Moderator

The concept of self-control has been widely studied and established as the potential moderator and protective factor in various domains of psychology (Baumeister et al., 2007; Baumeister & Exline, 1999; Tangney et al., 2004; Unger et al., 2016; Xiang et al., 2020; Zhang & Zhao, 2020; Stults & You, 2022). SC refers to ability to restrain undesirable impulses and behave suitably in different situations (DeWall et al., 2011; Denson et al., 2012). In the context of cyberbullying, studies have shown that low levels of SC are associated with higher likelihood of engaging in CB, while higher levels of SC can reduce or eliminate behavior (Dearden & Parti, 2021; Zhang et al., 2021; Kim et al., 2022). This suggests that SC can play the crucial role in regulating the behavior of young smartphone users and protecting them from the adverse effects of CB. The present study explores SC as a potential moderator of relationship between psychopathic traits and CB among young smartphone users in Pakistan. PSY personality significantly predicts CB in problematic smartphone users (Charalampous et al., 2021). Still, role of SC in moderating this relationship has not yet been thoroughly examined. Consequently, it can be hypothesized that:

H2: Self-control is likely to moderate the relationship between Psychopathy & Cyberbullying among problematic smartphone users in Pakistan.

Figure 1
Hypothetical Moderation Model



RESEARCH METHODOLOGY

Sample & Sampling Technique

In the present study, the sample comprised of 801 problematic smartphone users aged 18 to 23 years. The multi-stage sampling approach was employed to gather data. In the first stage, 1055 young adults were approached, and the problematic smartphone users were screened out using Wang et al. (2018) criteria. The six-hour criterion is modified for the current research as Wang et al. (2018) gave four-hour criteria i-e “using smartphone for the four-hours daily for leisure activities”. Therefore, in second stage, 254 participants were discarded and only those participants who used their smartphones for at least six hours a day, excluding the learning & educational activities, were included in study. The details of usage among young adults is as follow:

Table 1
Smartphone usage among participants (N=801)

Variables	Attributes	Number (%)
Gender	Male	383 (47.9)
	Female	418 (52.1)
Duration of smartphone usage on weekends	6-9 hours	288 (37.3)
	9-12 hours	502 (62.7)
Duration of smartphone usage on weekdays	6-9 hours	380 (47.4)
	9-12 hours	421 (52.6)

Measures of Study

The survey comprised of two sections: (i) demographic information, (ii) assessment measures/scales. The following measures were thus used to assess PSY traits, SC, and CB in problematic smartphone users. Dark personality traits Test. Jones and Paulhus (2013) developed the short dark triad personality test, which measures 3-dimensions of individual's personality, including Machiavellianism, narcissism, and psychopathy, using a 5-point Likert scale with 27 items. For this study, “Psychopathy” scale was selected and translated into Urdu by Yaseen, Miran, and Jamal (2021). The sub-scale had reliability score of 0.66. 10-item Self-Control Scale. Tangney et al. (2004) initially developed the self-control scale, which consisted of 36 items rated on a 5-

point scale. Unger et al. (2016) revised scale and developed a brief version that comprised of 10-items. Urdu translation of 10-item revised self-control scale was carried out Yaseen, Miran, and Jamal (2021). Scale Forms of Bullying Scale. Shaw et al. (2013) developed Forms of Bullying Scale to assess diverse forms of bullying and victimization. Subscale Cyberbullying is used to assess cyberbullying. Scale was translated into Urdu by Yaseen, Miran and Jamal (2021), and its reliability was found be 0.81. Urdu translations of all 3-scales were done by using MAPI (2008) guidelines.

Procedure

The Departmental Board of Studies and Board of Advanced Studies and Research at Lahore Garrison University approved the study. Additionally, permission was obtained from original authors of psychometric measures to translate and use scales. Physical data were collected by visiting colleges and universities, with prior permission obtained from each institution and consent obtained from problematic smartphone users. Consequently, the researcher explained the procedure and ethical guidelines, like participants' right to withdraw, confidentiality, and anonymity.

Statistical Analysis

The study utilized IBM SPSS software version 25 for statistical analysis. Descriptive statistics, Pearson product-moment correlation analysis, and moderation analysis were used to analyze the data. PROCESS macro version 3.5, developed by Hayes (2013), was used for moderation analysis. Initially, correlations were computed among variables to explore association among PSY, SC, and CB. Model 1 of PROCESS macro was utilized to evaluate the moderating effect of SC on relationship between PSY and CB. Moderation analysis investigated the buffering role of SC in relationship between PSY and CB. The analyses employed 5000 bootstrapping and 95% confidence interval to ensure robustness and validity of outcomes. Statistical analyses provide valuable insights into connections amid PSY, SC & CB amid problematic smartphone users in Lahore, Pakistan.

RESULTS OF STUDY

Table 2

Intercorrelation of Psychopathy, Self-control, and Cyberbullying (N = 801)

Variables	1	2	3
1. Psychopathy	-	-.34**	.66**
2. Self-control		-	-.49**
3. Cyberbullying			-

Note: **p < .01

Correlational analysis indicated there was a positive relationship between PSY & CB. Whereas, SC has a negative relationship with PSY and CB.

Table 3

Regression analysis examining interaction effect of psychopathy, self-control, & cyberbullying among smartphone users (N = 801)

Variables	Cyberbullying		
	B	SE	95% CI
Constant	1.89	.03	[1.82, 1.96]

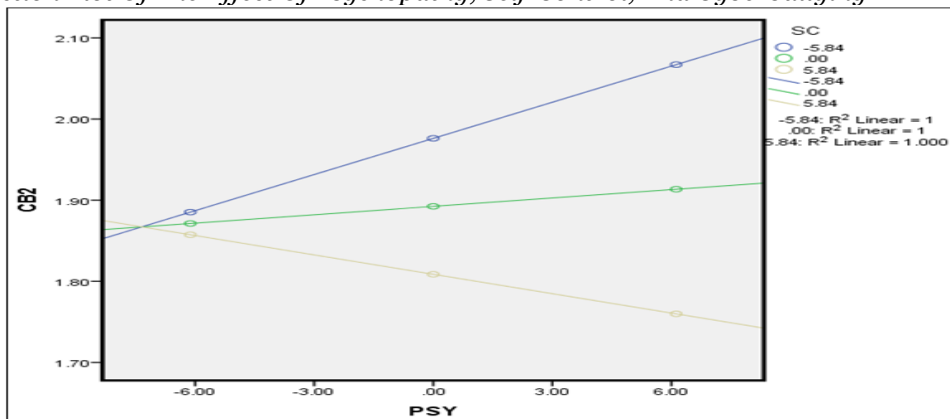
Psychopathy	.34	.06**	[.08, .15]
Self-control	-.04	.03*	[-.03, -.01]
Psychopathy x Self-control	-.02	.009*	[-.04, -.01]
Low self-control	.02	.007*	[.005, .03]
Moderate self-control	.003	.006	[-.008, .01]
High self-control	-.008	.009	[-.02, .01]
R2	.01		
F	4.09*		

Note: *p<.05

The findings suggested that interaction point between PSY and SC was significant ($\beta = -.02$, SE = .009, $p < .05$). It is also revealed that PSY ($\beta = .34$, SE = .06, $p < .01$) and SC ($\beta = -.04$, SE = .03, $p < .05$) are significant predictors of CB. It is indicated that SC is a significant moderator in the association between PSY and CB among the problematic smartphone users. Moreover, the researchers examined the conditional effects of SC at different levels and discovered that the association between PSY and CB was significant only at the low level of SC ($\beta = .02$, SE = .007, $p < .05$). In contrast, the association becomes insignificant at the moderate level of SC ($\beta = .03$, SE = .006, $p > .05$) and high level of SC ($\beta = -.008$, SE = .009, $p > .05$). Results are presented in figure 2.

Figure 2

Interaction Plot Of The Effect Of Psychopathy, Self-Control, And Cyberbullying



DISCUSSION

The few authentic research studies (Shaikh et al., 2021) conducted in Pakistan explored the relationship between PSY and CB among problematic smartphone users. Still, research on this topic in Pakistan remains limited. Thus, this study aimed to investigate the moderating role of SC in the association between PSY and CB among problematic smartphone users in Pakistan. The current research findings proved the first hypothesis, which stated that there would be a positive relationship between PSY and CB. PSY is distinguished by autocracy, dominance, and manipulation over others and has been linked to antisocial behavior and aggression. Thus, the psychopaths experience a reduced sense of social inhibition which leads them to engage in CB. As well as without fear of being exposed and negative social consequences, psychopaths may

also be more likely to view CB as a means of achieving their goals, such as gaining attention or social status or exacting revenge on those they perceive as having wronged them (Geel et al., 2017; Charalampous et al., 2020). In addition, the online environment may provide a sense of anonymity and detachment that allows these individuals with PSY traits to engage in harmful behavior without experiencing the emotional discomfort or empathy that might arise in face-to-face interactions. The lack of physical cues and personal accountability may also contribute to a sense of reduced responsibility for their actions (Azami & Tarehian, 2021; Hossain et al., 2022).

The results also highlighted the moderating effect of SC on relationship between PSY and CB, which supports hypothesis 2. The results revealed that association between PSY and CB was statistically significant only when SC was low, indicating that individuals with both PSY and low SC were more likely to participate in CB. When SC was moderate, correlation between PSY and CB was no longer significant, suggesting that SC acted as a protective factor. Furthermore, at high levels of SC, the link between PSY and CB was also non-significant, indicating that SC mitigated effect of PSY on CB. Individuals with moderate and high levels of SC may be better equipped to resist the immediate gratification of engaging in CB behavior, even if they have psychopathic personality traits. This is because they can better delay gratification and consider the long-term consequences of their actions (Baumeister & Exline, 1999; Baumeister et al., 2007; Stults & You, 2022). They may be more attuned to social norms and the potential harm caused by CB and, therefore, less likely to engage in such behavior (Giumetti et al., 2021; Kim et al., 2022). Also, research has found that SC can weaken relationship between psychopathic personality traits and CB among problematic smartphone users by reducing impulsivity and aggression that may be linked with PSY. This indicates that problematic smartphone users with moderate to high SC are less likely to engage in CB, even with PSY personality traits (Pechorro et al., 2022).

CONCLUSION

Based on findings of this study, it can be concluded that there is significant positive association between PSY and CB among problematic smartphone users in Pakistan. Still, this relationship is weakened by moderating role of SC, which can reduce the likelihood of engaging in CB even in presence of PSY traits. These findings highlight importance of promoting SC skills among problematic smartphone users in Pakistan, particularly in light of growing prevalence of CB and problematic smartphone use. This can be achieved through the targeted interventions and educational programs accenting rank of self-regulation and responsible online behavior. Also, these findings contribute to the broader literature on the risk factors for CB and the role of individual differences in predicting this behavior. By highlighting the specific role of PSY and SC in context of problematic smartphone users in Pakistan, this study offers valuable insights into complex interplay between individual, cultural, and environmental factors that influence CB.

Implications

The findings of study have several implications. Firstly, educating and raising awareness about CB and necessity of positive personality resources (such as SC) for prevention and intervention would be advantageous. University counseling centers should launch antibullying programs incorporating SC and internalization of values. Secondly, college, university administrations must initiate awareness campaigns educating young adults about consequences of bullying.

Psychologists and counselors may develop support programs and therapeutic interventions to enhance SC in young adults. Interventions targeting individuals with dark personality traits, such as psychopathy, to prevent or stop cyberbullying may include individual and group-level approaches. Individual-level interventions may build self-control (SC) skills through cognitive-behavioral therapy, other SC training programs. CBT can help individuals with dark personality traits to identify and challenge distorted thinking patterns and to develop alternative coping strategies for managing negative emotions and impulses. Such interventions can help to boost their understanding of negative consequences of CB and encourage the development of more prosocial behaviors. Group-level interventions may include creating positive school/community climate that promotes respect, kindness, inclusivity. This can be done by implementing policies and programs that support healthy relationship, positive communication & conflict-resolution skills.

Limitations & Future Directions

It is essential to consider study's limitations when interpreting the findings. One of the study's limitations is its correlational research design, which does not allow for controlling variables that may impact PSY and CB. As a result, establishing a cause-and-effect relationship between variables is impossible. Future research could employ longitudinal study designs to examine causality between these variables better. Another limitation is the sample population, as the data was collected from youth of one urban city (Lahore) in Pakistan. Thus, the findings may not be generalizable to entire population of Pakistan. Furthermore, data was collected using self-report measures, which may be subject to response and social desirability biases. Future research could benefit from including multiple data collection methods to enhance findings' validity.

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