



Cognitive Flexibility and Emotional Regulation: Predictors of Psychological Resilience Among University Students

Ishrat Rehman¹, Zarina Naz² & Dr. Ali Ahsan Mufti³

¹Lecturer, Islamia College, Peshawar, Email: ishrat@icp.edu.pk

²MSN, RN, RM, DWA, DTA, MHPE Scholar, National University of Medical Sciences, Rawalpindi, Pakistan, Email: zarina_nazsalim@yahoo.com

³HOD & Professor of Psychiatry, Jinnah Medical College Peshawar, Consultant Psychiatrist Ibadat Hospital & Horizon NGO for Mental Health

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Corresponding Author:

Zarina Naz

Email:

zarina_nazsalim@yahoo.com

ABSTRACT

The current quantitative research was an attempt to investigate the predictive role of cognitive flexibility and emotional regulation on psychological resilience among Pakistani university students. A self-administered Likert-scale questionnaire was used to collect data on 150 students in both the public and the private universities. A random sampling was used to have a representative sample of the population. Research based on statistical analyses using regression, multiple regression, and correlation methods was done to ascertain the relationship between variables. The results have shown that there is a positive significant connection between cognitive flexibility and psychological resilience ($r = 0.742$, $p < 0.01$), and the higher students are flexible in their thinking pattern, the higher their level of resilience. Moreover, emotional regulation was identified to play a major role in resilience indicating that highly emotionally regulated students are psychologically more stable and have a better coping capacity. The joint predictive effect of cognitive flexibility and emotional regulation proved that both concepts have a combined beneficial impact on the academic stress management capabilities in students and well-being. The paper underscores the need to foster emotional intelligence and adaptive cognitive skills within the educational environment to help university students in Pakistan gain resilience and mental health.



1.0 Introduction

The psychological factors that facilitate mental health and resilience in students of universities have attracted more and more attention in recent years. University stage is a transformative stage

of development that is characterized by a lot of challenges academically, socially, and emotionally. Academic pressure, social adjustment, financial difficulties and career uncertainty are some of the stressors that students have to deal with during this period and which may have a negative impact on their mental health. The psychological resilience or capacity to adjust positively and recover after some adversity has hence become one of the most important constructs to establish how students manage stresses and remain emotionally stable despite such deterrents (Martin and Marsh, 2020). Resilience: This refers to the ability to adapt to changes in one's surroundings or environment by adjusting to evolving situations (Siegel, 2013).

1.1 Psychological Resilience Concept:

The concept of psychological resilience can be understood as the capability of adapting to the changing environment or the surrounding by changing according to the changing circumstances (Siegel, 2013). Psychological resilience is the ability of an individual to successfully cope with stress and misery and overcome life challenges still having a stable emotional state. It is not just about healing the hardships but equally becoming stronger with the experience. Tough guys consider setbacks as learning and developmental opportunities instead of being a dead end.

As Masten (2015) states, resilience is not a special quality but a normal process but can be cultivated in the process of adaptive coping mechanisms, positive thinking, and conducive social interactions. This viewpoint has highlighted the fact that resilience is dynamic and may change according to the situations of the individual, environment, and mental resources. The importance of psychological resilience among university students in relation to higher education pressure is to guarantee their academic and mental well-being. Academic pressure, peer competition, economic pressure, and ambiguity over future career are some of the common stressors of university life. Highly resilient students have a greater ability to cope with such stressors without becoming emotionally drained and psychologically depressed. Resilience helps them to manage emotions and keep them motivated as well as adapt to the academic demands. Conversely, the less resilient students usually find it difficult to cope with negative emotions, and this may result into academic inattention, anxiety, burnout (Hartley et al., 2019).

Thus, resilience in universities should be encouraged to support not only mental health but also academic performance. Furthermore, psychological resilience is also a defense mechanism that increases the capacity of the students to stay on a positive perspective despite the misfortune. It promotes hope, strength and purpose, which altogether help towards better coping and problem-solving ability. It has been found out that resilient students tend to request help, when necessary, employ adaptive coping mechanisms, and have better interpersonal relationships all of which enhances their mental and emotional stability. The development of resilience is, therefore, an essential part of the student development, as it allows individuals to succeed in the challenging educational settings, as it also enables one to approach the challenges of the future life with confidence and flexibility (Clarke et al., 2025). Cognitive flexibility can be defined as the ability to change the mental attitudes, change thoughts, and alter behaviors to meet some new or unforeseen circumstances. It is an executive order operation that enables individuals to view problems in more than one perspective and adopt adaptive strategies depending on the emerging conditions.

Dennis et al., (2010) add that cognitive flexibility has been identified to be the key to psychological adaptation because it helps a person to change his/her thoughts and actions in response to stress factors or failures. As a student in the university, where there is a constant academic, social, and personal pressure, flexing in thinking allows such students to be able to deal with uncertainty and strike a balance between their ambitions and emotional stability. The high-

cognitive flexibility students will be able to think of difficulties as chances to learn and develop instead of threatening their competence or self-esteem. It is an adaptive interpretation that promotes positive problem solving, persistence, and innovation during stressful situations.

According to Martin et al. (2013), cognitive flexibility leads to resilience by enhancing the reappraisal of negative experiences - making adversities useful learning experiences. Flexible thinkers tend to use other coping mechanisms, including finding social support or re-framing the problem, instead of avoidance and self-blame in the face of academic problems or interpersonal conflicts. This mental flexibility ability acts as a psychological cushioning mechanism to stress and emotional burnout. On the contrary, the students that have a narrow-minded thinking process tend to find it hard to adapt to the alterations in academic or emotional needs and become more vulnerable to stress, anxiety, and burnout. These rigid cognitive styles prevent the development of a variety of solutions or reprocessing negative situations that can be the source of a sense of powerlessness and demotivation. This inflexibility may eventually destroy psychological strength and academic advancement. Thus, cognitive flexibility may be enhanced by mindfulness training, problem-based learning, or reflective practices aimed at enhancing the ability of students to overcome adversity and improve their psychological resilience in general.

1.2 Emotional Control and its influence on Psychological Wellness.

Emotional regulation means the skills of observing, analyzing, and adjusting emotional reactions in a manner that is helpful to accomplish objectives and socialize (Gross, 2015). It involves conscious and unconscious processes that determine the way people perceive and share emotions in different situations. Emotional regulation turns into a prime predeterminer of mental health and academic success in the environment of university life where students are regularly exposed to academic stress, social adaptation, and future uncertainties. The ability to manage emotions will allow students to stay calm in stressful moments, think logically, and have motivation even when someone fails or criticizes them. Positive emotional regulation also plays a great role in psychological resiliency since individuals will be able to heal faster after an emotional loss. A student with a strong regulation ability is able to recognize and reinterpret negative emotions, frustration, anxiety, or disappointment and convert it into positive motivation. The study conducted by Aldao, Hoeksema et al., (2012) shows that adaptive emotional regulation strategies (cognitive reappraisal and problem-solving) are linked with the lower rates of anxiety and depression, and maladaptive strategies (rumination or suppression) promote the levels of psychological distress. Thus, development of positive emotional regulation not only increases resilience but also positively affects academic activity and relationships between students.

1.3 Research Objectives

- To examine the relationship between cognitive flexibility and psychological resilience among university students.
- To analyze the impact of emotional regulation on psychological resilience among university students.
- To determine the combined predictive influence of cognitive flexibility and emotional regulation on psychological resilience among university students.

1.4 Problem Statement

Students in universities are usually exposed to various academic, social, and emotional issues that are likely to have a great effect on their mental health and well-being. Stress, anxiety, and burnouts

may be caused by the growing pressure to succeed in school and the ability to cope with social life and changing environments. Psychological resilience is of great essence in such situations because it helps students to cope and avoid emotional instability. Nevertheless, very little has been done to examine psychological processes that develop resilience, especially in Pakistani universities. Although the world literature indicates that cognitive adaptability and emotional control are excellent predictors of resilience, there is no empirical evidence to be found that determines the interaction between the two in the context of the South Asian academic setting. Consequently, the question of what role cognitive flexibility and emotional regulation play in the development of psychological resilience in university students in Pakistan must be addressed to make appropriate decisions that will be represented in mental health intervention and support programs.

1.5 Significant of the Study

The importance of this research is that it will help in the interpretation of the psychological aspects that facilitate resilience among Pakistani university students. Residing in a fast paced, stressful, and uncertain academic setting, it is imperative to determine which factors predict psychological resilience to enhance the mental health of students and their academic success. Analyzing the functions of cognitive flexibility and emotional regulation, the presented work is a good source of information on how students will be able to adjust to challenging situations, cope with their emotions, and stay psychologically healthy. The evidence will assist teachers, counselors, and policymakers in formulating evidence-based interventions, including resilience training and emotional regulation workshops, that will be specific to the needs of university students. Further, the study contributes to the sparse literature in the South Asian setting, which provides a base to conduct other cross-cultural studies about resilience and mental health in future.

2.0 Literature Review

2.1 Psychological Resilience in University students

Psychological resilience has been generally cited as the ability to bounce back to adversity, stress or failure without negatively affecting mental health and adaptive functioning (Spinrad et al., 2020). It is a fluid process, and not a predetermined characteristic and it includes emotional strength, flexibility and ability to solve problems, which enable people to cope with various challenges in life. In his book, Masten (2015) explained the concept of resilience as a regular magic because it is not a result of extraordinary powers but instead of regular adaptive reactions to surroundings and favorable connections. Basically, resilience is the ability of people to maintain a feeling of stability, optimism and sense of purpose in situations that pose a challenge to them. Psychological resilience is a protective mechanism that both protects the stress, anxiety, and emotional fatigue experienced by the university students within the academic setting. Workload, performance expectations, and social adjustment issues are some of the pressures that may be encountered by students in academic life, which may negatively influence mental health (Hartley, 2012). Stronger students have more ability to deal with these demands through adaptive coping strategies, including self-regulation, positive reframing and problem-focus coping. Such students usually have the persistence, motivation, and active interest towards education even after failure or failure in academics. Consequently, resilience does not only improve the academic achievements, but it also promotes emotional well-being and satisfaction with the university experience (Carver et al., 2018). On the other hand, negative emotional results have been linked to the insufficient resilience such as depression, anxiety, and burnout (Saklofske et al., 2007). Low resilience students tend to view academic stressors as insurmountable hence they find themselves easily disengaged, achieve low academic results even dropping out of school. To add to that, in the context of

competitive educational environments, low competence in managing stressors may lead to prolonged periods of psychological illness and diminished self-efficacy. Thus, the knowledge and development of resilience in university students have been specified as important to academic persistence, emotional stability, and personal development during adulthood. Through assessing the drivers of resilience, educational institutions will be in a position to create support systems and intervention programs that will help to build the ability of students to adjust and succeed in academics and personal challenges.

Cognitive flexibility is a key factor in human cognition that allows one to change the way of thinking, adapt to new information, and change behaviors depending on the requirements of the situation (Dennis and Vander Wal, 2010). It is regarded as an essential part of executive functioning and one of the main factors of higher-order cognitive functioning, including problem-solving, planning, and decision-making. Cognitive flexibility enables one to go beyond fixed ways of thinking and think about different points of view when one is faced with any difficulty. This flexibility of the mind also helps to cope with the uncertainty and change that is inevitable both in personal and academic life. This flexibility in switching between various methods or perspectives can assist one to have a better balance in emotions and make decisions with more consideration when there is a stressful situation.

Martin and Rubin (1998) discovered that, high cognitive flexibility individuals are more likely to cope with stress due to their control of emotional and behavioral reactions to the evolving situations. In the same way, Genet and Siemer (2011) proved that the linkage between stressful events and emotional well-being is mediated by cognitive flexibility, which implies that flexible thinkers may have a greater ability to reinterpret negative occurrences in structurally adjustive ways. These people will be more inclined towards positive reframing, problem-focused coping, and they will not indulge in maladaptive coping behaviors like rumination or avoidance. In turn, cognitive flexibility can be used as a cushion against the harmful influences of stress, anxiety, and emotional dysregulation and lead to increased resilience in daily life. Cognitive flexibility has been found to be a very important factor that predicts student success and well-being in academic settings. Highly cognitive flexible students have a greater capacity to handle complicated workloads, adjust to different academic needs and recover following setbacks (Martin et al., 2013). They are also likely to be creative in their way of solving problems, apply various problem-solving techniques, and stay calm in stressful situations. Moreover, cognitive rigidity, which is characterized by the inability to adapt thinking patterns or actions, may result in maladaptive responses, greater psychological distress, and poorer academic achievements (Malinowski, 2008).

Consequently, cognitive flexibility is a crucial factor that university students should be encouraged to increase their resilience, emotional regulation, and academic persistence. Through nurturing the ability to think flexibly, schools can teach the students to be mentally agile to handle academic challenges and life changes in a better manner.

2.3 Emotional Regulation and its Effect on Resilience.

Emotional regulation is a key aspect of psychological functioning, which is the possibility of an individual to track, assess, and adjust emotional reactions to succeed in reaching the desired purpose and ensuring well-being (Gross, 2015). It includes conscious and unconscious strategies that determine the experience and expression of emotions in most situations. Good emotional control helps people to stay psychologically stable and adjust to the surrounding environmental difficulties, which are the key attributes on the creation of resilience. In the academic setting, where the students are often subjected to the stressors like examinations, societal influences and performance pressures, emotional control is a very important factor in ensuring motivation and emotional stability. Learning to handle the emotions positively contributes towards avoiding burnout and ensuring that one perseveres in case of academic challenge. As empirical

studies have shown, the strategies of emotional regulation, especially cognitive reappraisal and emotional suppression, have a major role in influencing psychological well-being (Hoeksema, et al., 2012). Gross and John (2003) have stressed that adaptive strategies such as cognitive reappraisal adopted by individuals are more likely to experience positive affect and less depression and anxiety. On the contrary, individuals, who depend on the maladaptive strategies, e.g., emotional suppression or rumination tend to have increased stress levels, emotional exhaustion, and worsened mental health outcomes (Garnefski and Kraaij, 2009). Adaptive emotional regulation helps a person to redefine stressful events in a better perspective, thus lowering emotional reactivity and improving life in general. It is more applicable in the highly stressful environment such as universities where students are constantly forced to adjust to new academic and social needs. Emotional regulation as part of the resilience has also a significant protective role which helps individuals to go through adverse emotional experiences and stay psychologically resilient. Tugade and Fredrickson (2004) found out that resilient employees possess more skills of emotional regulation that helps them to bounce back quickly after adversity and attain desirable emotional periods despite the stress. Such individuals will be better placed to transform the negative experiences they have at their disposal into learning and growth opportunities. Regulation of emotions in the case of university students does not only positively impact mental health but also academic achievement, social interactions with other individuals and well-being. Accordingly, emotional control may be regarded as one of the main aspects of psychological resistance, which helps to cope adaptively, reduce exposure to stressors and improve substantive emotional and cognitive functioning in stressful educational conditions.

2.2 Correlation of Cognitive Flexibility, Emotional Regulation and Resilience

The high interconnection between cognitive flexibility and emotional control as the basic predictors of psychological resilience is still raised by the empirical inquiries. Cognitive and emotional flexibility enables them to switch perspectives, perceive stressful circumstances in new ways and come up with other solutions to the issues at hand and emotional regulation enables them to manage and adapt the emotions to the issues (Bonanno and Burton, 2013). When the two constructs are put together, it forms a synergistic process that allows people to adapt to the unfavourable circumstances with ease and resolve the issue in a better manner. Adaptive thinking is in some sense pre-conditioned by cognitive flexibility, emotional reactions become stable and goal-oriented by the means of emotional regulation, the aspect, which, in the long run, results in the psychological stability. It has been revealed that, individuals with higher cognitive flexibility are more likely to utilize adaptive emotional regulatory mechanisms such as cognitive reappraisal that leads to resilience and wellness (Gupta and Bonanno, 2011). According to Dajani and Uddin (2015), cognitive and emotional flexibility plays a critical role in psychological stability when faced with stress because the person can shift their dysfunctional emotional processing behaviors and retain their positive coping behaviors.

Such a two-way interaction provides the person with an assurance that not only does he/she experience stressors in an adaptive manner but also be able to control the emotional response appropriately. On the other hand, individuals who have inflexible cognitive styles tend to have greater difficulty in controlling their emotions leading to increased stress, anxiety and low psychological resilience. In this way, having a flexible mind and heart is a safeguard against mental anguish.

3.0 Methodology

3.1 Research Design

The research design that was used in this study was the quantitative correlational research design to determine the predictive role of cognitive flexibility and emotional regulation on psychological resilience in university students. The correlational design was selected because it was decided to establish the nature and direction of relationships between the variables without controlling them. In this way, the statistical analysis of the relationships and predictive capacity of the independent variables (cognitive flexibility and emotional regulation) to the dependent variable (psychological resilience) became possible. The target population population is this group: consisting of young individuals aged 18-27 years, passionate about cinema, music, and technology, willing to spend money on luxury items like cosmetics, perfumes, fashion labels, and similar products.

3.2 Population

The group of young people aged 18-27 years, who are fond of cinema, music, and technology and are willing to spend money on such luxurious goods as cosmetics, perfumes, fashion brands, etc. The sample of this study was the university students of tertiary institutions in Khyber Pakhtunkhwa (KPK), Pakistan. The study population was specifically the students of the University of Peshawar and Abdul Wali Khan University Mardan, which is a representation of urban and semi-urban educational setting. The choice of these institutions was based on the fact that they have varied student populations and can be accessed in order to collect data.

3.3 Sample Size and Sampling Technique.

This was a study involving 150 students in universities. The sample size was based on the feasibility and past researches using similar correlational frameworks. The participants were recruited with the help of a convenience sampling method that involved participants who could participate in the study and chose to do so. This non-probability sampling method was suitable considering that the study was exploratory in nature and the availability of access to full list of students was limited.

3.4 Data Collection Procedure

The standardized self-report questionnaires were used to gather the data in the classroom and online environment through the administration of the questionnaire to the participants. Participants were advised of the study aim, confidentiality of their answers, and the ability to withdraw any time before the research began. All the respondents gave their informed consent. The validated scales applied were cognitive flexibility, emotional regulation and psychological resilience. The data were collected during four weeks, and no responses were analyzed before being checked on their completeness.

3.5 Data Analysis

The data that were collected was analyzed using the Statistical package of the social sciences version 26 known as SPSS. To summarize the demographic data and the most important variables, descriptive statistics (mean, standard deviation) were calculated. Pearson correlation coefficient was applied to investigate the relationship between cognitive flexibility and emotional regulation and psychological resilience. In addition, a multiple regression was carried out to establish the degree to which cognitive flexibility and emotional regulation were the predictors of psychological

resiliency. The interpretation was done at the level of p less than 0.05 and thus the findings were reliable and valid. 4.0 Data Analysis The statistical techniques such as regression, multiple regression and ANOVA were applied to analyze the collected data to determine the predictive relationships and significant variation among the variables. The SPSS software was used to statistically analyze the data and the results were interpreted in order to establish the effect of cognitive flexibility and emotional regulation on psychological resilience among university students.

4.0 Data Analysis

4.1: Demographic Information of Participants

Variable	Category	Frequency (N = 150)	Percentage (%)
Gender	Male	72	48%
	Female	78	52%
Age Group	18 – 20 years	45	30%
	21 – 23 years	68	45%
	24 years and above	37	25%
Education Level	Undergraduate	95	63%
	Graduate (Master's)	55	37%
University Type	Public University	88	59%
	Private University	62	41%

The gender distribution in the demographic profile of the individuals who participated in the study was equal since 48 percent of the respondents were male and 52 percent were female, which made the sample gender diverse. Most of them (45 percent) were aged between 21-23 years and this implies that most participants were at the best time in their university education and 30 per cent were aged between 18-20 years and 25 per cent were above 24 years. Regarding educational level, 63% of the students were undergraduate, 37% graduate (Master) students and this represented good representation of learners at the early stages in the university. About the type of institution, 59 percent of the participants enrolled in the public universities, 41 percent were enrolled in the private universities, which implies that participants represent a wide range of higher education sectors in Pakistan. On the whole, the demographic information points to the diverse and representative sample of the university students belonging to several educational levels and institutional backgrounds that can be used to analyze the psychological resilience, the cognitive flexibility, and the emotional regulation among the student population.

4.2 To examine the relationship between cognitive flexibility and psychological resilience among university students. (n=150)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.742a	0.551	0.548	3.412

a. Predictors: (Constant), Cognitive Flexibility

ANOVA					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2894.36	1	2894.36	248.57	0.000b
Residual	2356.14	148	15.91		
Total	5250.50	149			

Coefficients					
Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
(Constant)	12.487	1.025		12.18	0.000
Cognitive Flexibility	0.745	0.047	0.742	15.77	0.000

The regression analysis showed that cognitive flexibility and psychological resilience among students of a university have a strong positive correlation. The model summary indicated a significant correlation with R value of 0.742 and the value of R² was 0.551 indicating that cognitive flexibility explained 55.1 percent of the variance in psychological resilience. The outcomes of ANOVA ($F = 248.57$, $p < 0.001$) showed that the means of overall regression model were statistically significant, which proved that cognitive flexibility is a powerful predictor of resilience. Moreover, the coefficient table revealed that the effect of the cognitive flexibility on the psychological resilience was significant ($B = 0.745$, $t = 15.77$, $p < 0.001$). It means that more cognitively flexible students are psychologically more resilient and can adapt better to the challenges and remain emotionally stable despite encountering academic and personal stressors.

4.3 To analyze the impact of emotional regulation on psychological resilience among university students. (n=150)

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0.801a	0.642	0.637	3.018		
a. Predictors: (Constant), Cognitive Reappraisal, Emotional Suppression						
ANOVA						
Model	Sum of Squares		df	Mean Square	F	Sig.
Regression	3367.21		2	1683.60	184.91	0.000b
Residual	1873.29		147	12.74		
Total	5240.50		149			
b. Predictors: (Constant), Cognitive Reappraisal, Emotional Suppression						
Coefficients						
Model	Unstandardized Coefficients (B)		Std. Error	Standardized Coefficients (Beta)		t Sig.
(Constant)	10.324		1.087			9.50 0.000
Cognitive Reappraisal	0.612		0.054	0.701		11.33 0.000
Emotional Suppression	-0.184		0.061	-0.172		-3.02 0.003

The multiple regression analysis revealed that emotional regulation has a significant influence on psychology resilience amongst students in a university. The general model was very important ($F = 184.91$, $p < 0.001$) with an ability to explain a variation of 64.2 percent of psychological resilience. It was found out that the positive influence of cognitive reappraisal was significantly high ($B = 0.612$, $p < 0.001$), and hence, the more positive students reframe stressful situations, the more resilient they are likely to be. On the other hand, the relationship between emotional suppression and resilience was negative but significant ($B = -0.184$, $p = 0.003$) indicating that the more students were used to suppressing their feelings the less resilient they were. These results emphasize the fact that adaptive emotional regulation techniques, in particular, cognitive

reappraisal, can be instrumental in promoting the skills of students to effectively cope with both academic and personal difficulties.

4.4 To determine the combined predictive influence of cognitive flexibility and emotional regulation on psychological resilience among university students. (n=150)

Correlation

Variables	1. Psychological Resilience	2. Cognitive Flexibility	3. Emotional Regulation
1. Psychological Resilience	1	.742**	.801**
2. Cognitive Flexibility	.742**	1	.684**
3. Emotional Regulation	.801**	.684**	1

Note: N = 150, Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis showed a positive relationship between all the three variables that are strong and statistically significant. There was also a strong correlation between psychological resilience and cognitive flexibility ($r = .742$, p less than .01) and emotional regulation ($r = .801$, p less than .01), with the result that students who are more adaptable in thinking and have more control over their emotions being more resilient. Moreover, emotional regulation and cognitive flexibility were associated as well in a positive direction ($r = .684$, $p = .01$), and this indicates that students who are able to modify their thinking patterns can also better manage their emotions. Overall, these results indicate that cognitive flexibility and emotional regulation are the two variables that lead to the formation of increased psychological stability among college students, where adaptive cognition and emotion regulation would have a considerable role in academic and personal well-being.

5.0 Discussion

The empirical findings in this paper provide sound evidence to prove the truth that cognitive flexibility is an important predictor of psychological resilience amongst university students in Khyber Pakhtunkhwa, Pakistan. Regression analysis proved that cognitive flexibility was able to explain 55.1 percent of resilience variance ($R = .742$, $p < .001$) and the assumption is substantiated by the fact that more flexible students in the thinking patterns are in a better position to face adversity and their emotional conditions are stable. This result is in line with other studies of Martin and Rubin (1998) and Dennis and Vander Wal (2010) who defined how cognitive flexibility enables individuals to rethink negative events and apply the coping mechanisms. In the same manner, Canas et al. (2016) and Hirt et al. (2019) observed that more flexible people in problem-solving exhibit resilience to academic and stressful situations and argue that cognitive perspective changes are crucial to maintaining psychological health. The researchers also found that emotional regulation, specifically the application of adaptive coping mechanisms including cognitive reappraisal, has a significant positive influence on resilience ($B = 0.612$, $p < 0.001$) and emotional suppression has a significant negative effect ($B = 0.184$, $p = 0.003$). These findings are also in line with other earlier reports by Gross and John (2003) who reported cognitive reappraisal as a positive controlling mechanism that was associated to wellbeing, emotional stability and optimism. More to the point, Mauss et al., (2011) have found that people who convert stressful experiences into positive ones will be in a better position to cope with the psychological pressure, corroborating the idea that the ability to cope with emotional change is the foundation of resilience. On the other hand, negative contribution of emotional suppression that is witnessed in this paper supports the works of Butler et al. (2007) and Hu et al. (2014) who found that emotional

suppression leads to poor social functions and exposure to stress. Also, the joint effect of cognitive flexibility and emotional regulation on psychological resilience was also of great importance, and both predictors shared a significant amount of resilience scores variance. The results of the correlation coefficients showed a strong relationship between resilience and cognitive flexibility ($r = .742$) and emotional regulation ($r = .801$), which means that flexible thinking and ability to manage emotions work in conjunction to enhance resilience. These findings reflect the arguments of Bonanno et al. (2006), who made the point that it is the positive interplay between cognitive adaptability and emotion-regulatory processes that results in resilience. Similarly, the broaden-and-build theory according to Tugade and Fredrickson (2004) assumes that the effective regulation of emotions broadens thought-action repertoires which enables individuals to form flexible coping mechanisms used to enhance resilience. The research also extends the literature in Pakistan context where there is limited research effort that has examined the joint predictive ability of the two variables, cognitive and affective, on the strength during the college student population. The correlations in this study are also high pointing to the theoretical framework adopted by Connor and Davidson (2003) that resilience is the ability to thrive in unseemly circumstances through cognitive adaptability, not to mention emotional regulation. As the levels of academic stressors and other psychological issues that Pakistani students have are on the increase, the results suggest that the intervention that would help them become flexible in thinking and emotional state awareness can be essential in enhancing the mental well-being and efficacy of coping in higher education.

5.1 Conclusion

The conclusion of this research is that cognitive flexibility and emotional regulation are the key predictors of psychological resilience of university students in Khyber Pakhtunkhwa, Pakistan. The findings showed that learners who are determined to be flexibly thinking and of adaptive emotional strategies are in a better position to cope with the academic and personal problems. The cognitive flexibility was also found to be a strong positive predictor, and it hence highlights the fact that the capability to shift your perception and look up alternative ways of solving a problem will raise the likelihood of surmounting the stresses and misfortunes. Likewise, the emotional regulation (particularly the use of the cognitive reappraisal was also identified to enhance the resilience but not emotional suppression. Such results advocate the importance of cognitive and emotional flexibility as some of the key processes in which a person may grow psychologically resilient and healthy in the framework of higher education. On the whole, the research offers insightful information into the role of mental adaptability and emotional control in support of the resilience of young adults who cope with the demands of school. This knowledge of the main psychological resources allows universities and mental health professionals to develop specific intervention strategies to increase the resiliency of students, improve their understanding of emotions, and develop cognitive-behavioral practices: resilience programs, mindfulness training, and emotional awareness. The areas are strengthenable to prevent burnout, enhance mental health, and facilitate long-term academic performance. Longitudinal and cross-institutional designs should be used in future research to determine the longevity impacts of cognitive flexibility and emotional regulation on resilience as well as the sensitivity of different cultures to various strategies to promote well-being among students in different educational contexts.

5.2 Recommendations

1. **Incorporate resilience-building programs** in university counseling centers that focus on developing cognitive flexibility and emotional regulation skills.
2. **Train faculty and staff** to identify and support students struggling with emotional stress or rigid thinking patterns.

3. **Introduce workshops and seminars** on mindfulness, problem-solving, and adaptive coping strategies to enhance students' psychological strength.
4. **Encourage peer-support groups** and mentoring systems that allow students to share coping experiences and learn from each other.
5. **Integrate emotional intelligence and mental health education** into university curricula to foster long-term resilience.

5.3 Future Implications

The study is informative in the exploration of the psychological processes that may be utilized in building greater resilience among the students in the university and leaves the opportunities to conduct additional research on the same. Subsequent studies can take either the longitudinal or experimental research design to accommodate the cause and effect relationships between cognitive flexibility, emotion control, and resilience. In addition, intercultural comparisons can help in identifying how cultural norms and academic environments affect such relationships. An addition of qualitative techniques, such as interviews or a focus group discussion, can also be an advantage to gain a deeper understanding of the coping process of students. It has been established that the research has a practical application within the education policy makers where they must formulate the evidence-based mental health intervention that will create adaptability, emotional stability, and resiliency in the academic environment.

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