

**FUNCTIONAL IMPAIRMENT, ACADEMIC
PERFORMANCE AND SUBJECTIVE WELL-
BEING OF UNIVERSITY STUDENTS WITH
MIGRAINE**



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**FUNCTIONAL IMPAIRMENT, ACADEMIC PERFROMANCE
AND SUBJECTIVE WELL-BEING OF UNIVERSITY STUDENTS
WITH MIGRAINE**



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**BY
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RESEARCH COMPLETION CERTIFICATE

It is certified that Ms. Jabal-e-noor of BSc (Hons) (session 2019 – 2023), Department of Applied Psychology has carried out research work entitled “**Functional Impairment, Academic Performance and Subjective Well-being of University Students with Migraine**” under my supervision.

It is assured that research work is original and has not yet been published anywhere else.

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A handwritten signature in black ink, appearing to be 'Mahira Ahmad', located in the lower right quadrant of the page.

Abstract

The main aim of this study was to explore the impact of functional impairment and academic performance on the subjective well-being of university students with migraine. 75 university students diagnosed with migraine with the age range of 18-28 years were recruited for the study. In these 75 participants 18 were males and 57 were females and all belonged from different universities of Pakistan. Firstly, the participants were asked to fill the Migraine Screening Questionnaire and once they fulfilled the criteria, then they were selected for the study. Academic performance was measured through Cumulative Grade Point Average (CGPA) of the students. For functional impairment and Subjective well-being, Weiss Functional Impairment Rating Scale (WFIRS) and Satisfaction with Life Scale (SWLS) were used respectively. The results indicated that multiple dimensions of functional impairment have a significant, negative relationship with subjective wellbeing of university students. However, academic performance of university students does not a significantly correlate with their subjective well-being. Results further showed that Functional impairment emerged as significant predictor of the later well-being of students explaining that impairments in the domain of self-concept predicts the overall life satisfaction and subjective well-being of university students. Strengths, limitations, implications and future recommendations are discussed.

Keywords: Academic performance, Functional Impairment, Subjective Well-being, university students with migraine

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List of Abbreviations

Abbreviations	Full Form
WFIRS	Weiss Functional Impairment Rating Scale
SWLS	Satisfaction with Life Scale
CGPA	Cumulative Grade Point Average
SWB	Subjective Well-being
SPSS	Statistical Package for Social Sciences

List of Symbols

Symbols	Definition
a	Cronbach's index of internal consistency
f	Frequency
k	Total no of items
N	Total sample
p	Significant value
SD	Standard deviation
%	Percentage
β	Beta
ΔR^2	R^2 Change

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Chapter 1

Introduction

The World Health Organization has identified migraine as one of the leading causes of disability years worldwide. According to WHO (2017), migraine is a prevalent neurological condition that affects one billion people worldwide and affects 22.7% of Pakistani residents. It typically manifests as episodic headaches, which are more than just headaches—they are a brain biological disorder. The headache migraine torment is by and large depicted as intense pulsing, excruciating pain in one side of the head, which lasts from 4 to 72 hours (Lainez, 2013). It is usually accompanied by nausea, vomiting, phonophobia, photophobia, hypersensitivity to sound, light, or smell (Lyngberg et al., 2005). According to Roberts (2010), it is a type of chronic headache that affects more than 10% of the world's population and has an impact on sleep, functional impairment, productivity, quality of life, academic performance, and subjective well-being. It by and large starts in adolescence and youthful adulthood particularly in females perhaps because of fluctuation of chemicals (Lucchetti, 2011). In addition, its prevalence varies with age

A headache disorder is a type of neurological condition characterized by persistent and recurrent headaches without obvious causes (Robbins & Lipton, 2010). Migraine is becoming more and more recognized as a major health issue affecting young adults, particularly students, and as a major consumer of health-related resources (Halay et al., 2021). Many college students report experiencing symptoms of depression, anxiety, stress, and disturbed sleep as their academic careers progress, all of which are linked to migraines. According to the available statistics, the prevalence of migraines is rising among university students as well as the general population. Moreover, studies have also found that

university students with migraine may experience lower academic performance, functional impairment, and reduced subjective well-being compared to their peers without migraine.

Functional impairment

Functional impairment is defined as limitations due to any disease, as individuals with an illness may not perform certain functions on daily basis. One can operationally relate the concept of “functional impairment” with “Disability” according to International Classification of Functioning, Disability and Health (WHO, 2001). It limits and restricts the functioning of a person in personal, social, occupational and other important spheres of life including family, work, school, life skills, self concept etc. Talking about migraine, one can say that there is a relationship between migraine and functional impairment. According to Global Burden of Disease Study of WHO, migraine has been identified as one of the top 20 disabling diseases among adults of all ages (Leonardi et al., 2003). It impairs functioning across multiple domains. The intensity of functional impairment experienced by migraine sufferers has been found to be equal to or greater than many other chronic illnesses such as depression, diabetes, arthritis, back pain, hypertension and angina. (Osterhaus et al., 1994; Stewart et al., 1989; Solomon et al., 1993; Wells et al., 1989). More or less 50% of migraine sufferers report severe impairment during their attacks.

Migraine can lead to functional impairment, which can impact various areas of a student's life. Studies have found that university students with migraine may experience difficulties in daily activities, such as household chores, exercise, and social activities (Basdav et. al., 2016). Migraine-related symptoms can also lead to difficulties in concentration, memory, and decision-making, which can negatively impact a student's ability to complete academic tasks and participate in extracurricular activities.

Functional impairment can significantly impact the subjective well-being of students. Subjective well-being refers to the overall assessment of an individual's quality of life based on their cognitive and affective evaluations. A study conducted by Atienza and colleagues (2016) found that students with functional impairment experienced lower levels of subjective well-being compared to students without functional impairment. The negative impact of functional impairment on subjective well-being is related to several factors. First, students with functional impairment may experience a sense of isolation or exclusion from their peers due to their limited abilities in several domains of life such as school, personal life, and social life. This can result in lower levels of self-esteem and a lack of social support, which are essential factors for subjective well-being. Second, functional impairment may result in limited access to academic and social opportunities, which can lead to frustration and a decreased sense of control over one's life. Students with functional impairment may also experience additional stress due to the need to adapt to their limitations, which can further impact their subjective well-being.

Moreover, functional impairment can affect academic performance, which can negatively impact subjective well-being. Students with functional impairment may experience difficulty in completing academic tasks or keeping up with their peers, leading to lower academic self-esteem and a sense of inadequacy. Additionally, functional impairment may result in increased stress due to the need to adapt to academic requirements, resulting in a negative impact on mental health and overall subjective well-being (Li and Lin, 2003; Eisenberg et al., 2009; Green et al., 2021).

Academic performance

Academic performance can be defined as the measurement of the achievement of students across a wide variety of academic subjects. Education officials and teachers usually measure academic achievement by performance in classrooms, graduation rates and

results of standardized tests. The factors involved in academic performance are personality, intellectual ability, skills, motivation, self-esteem, study habits and the teacher student relationship (Marti, 2013). Because the student's academic performance is central and significant for universities, students and the world, hence identifying and determining factors affecting and influencing it is essential (Martha, 2009). However, mostly people talk about factors involving environmental, social, financial, motivational but a much reduced amount of attention has been given to the effect of migraine on academic performance especially on university students in Pakistan.

Personal characteristics and contextual factors, which ultimately determine university students' subjective well-being, play a significant role in that field of study. The world's future leaders are thought to be university students. Scholarly execution is considered one of their important accomplishment and principal objective of their life. Throughout their scholarly life, understudies need to achieve different difficulties and obligations. This may be the primary cause of their anxiety, stress, and depressive symptoms. While most students are able to overcome the challenges and difficulties they encounter during their academic careers, some students are unable to do so. This can enormously influence the understudies' prosperity.

Studies have shown that university students with migraine may experience difficulties in academic performance, such as lower grade point averages (GPAs) and higher rates of course withdrawal. Migraine-related symptoms such as pain, fatigue, and difficulty concentrating can negatively impact academic performance. Additionally, migraine attacks can lead to missed classes and exams, which can further impact academic performance. Good academic performance is often associated with higher levels of subjective well-being, as it provides a sense of achievement, competence, and a sense of

purpose. Students who perform well academically tend to have better opportunities for career development and financial stability, which can contribute to their overall well-being.

Subjective Well-being:

Life satisfaction, positive affect, and negative affect (the experience of positive and negative emotions and feelings) are the three related but distinct constructs that make up subjective well-being. The scientific term for these three constructs is "subjective well-being." It is characterized as the individual's full of feeling and mental assessments of life (Diener, Lucas, and Oishi, 2002). Subjective well-being of any individual is influenced by both external and internal factors including personality, temperament, social relationships, environment in which one live (e.g. work) etc. Researchers have found that people high in subjective well being are seemed to be healthier and function more efficiently than those who are chronically ill, stressed and depressed. Multiple factors such as unhealthy lifestyles, physical issues, psychological issues and academic failure leads to low subjective well being in individuals especially in students (Angkurawaranon, 2016). According to a study conducted by Chattu et al., (2020), there was a correlation between higher academic performance and greater subjective well being giving the fact that overall well-being was a significant aspect in academic life of a student. Students who perform well academically and have no functional impairments tend to have higher levels of subjective well-being. In contrast, students who struggle academically or have functional impairments may experience lower levels of subjective well-being due to stress, frustration, and feelings of inadequacy.

University students with migraine may experience reduced subjective well-being, which can impact their overall quality of life. Studies have found that migraine can lead to increased levels of anxiety, depression, and stress. Migraine attacks can also be disruptive and painful, leading to reduced enjoyment of leisure activities and social interactions.

Migraine attacks can be unpredictable, leading to a sense of loss of control, uncertainty, and worry about future attacks. This can lead to a negative impact on mood, feelings of isolation and a reduced sense of happiness and life satisfaction.

The relationship among functional impairment, academic performance and subjective well-being is complex, multifaceted. Good academic performance can contribute to higher subjective well-being, but functional impairments can interfere with both academic performance and subjective well-being. It's important for educators and support staff to be aware of these factors and provide resources and support to help students manage these challenges and promote their overall well-being.

1.2 Theoretical framework:

- **Theory of Mind deficits and functional impairment:** Theory of mind (ToM) is defined as the ability to infer or represent the psychological states of other folks such as their beliefs, intentions and emotions (Pinkham, 2014). ToM deficits are frequent in schizophrenia and are considered as significant barriers to adequate functioning (Addington et al., 2006). It has proved to mediate the association between social knowledge and functioning and neurocognition and functioning. Numerous studies have revealed the relationship between functioning and Theory of mind abilities in multiple domains including social interactions e.g. productive activities and social functioning along with other domains such as IADL (Brown et al., 2014). Furthermore, limited or poorer performance in social cognition including ToM was associated with substandard work results.
- **Theory of academic performance:** Elger came up with the theory of academic performance, or ToP. The author defined "Perform" as the capacity to produce a prized outcome and "Performer" as a group or an individual who works together, with the level of performance serving as the point in an academic journey. Elger (2007) gave six components of performance levels. Personal factors, identity, level of skills, and fixed factors 4 are examples of these.
- **Life circumstance theory of Subjective Wellbeing:** According to life circumstance theories, an individual's subjective well-being is determined by both favorable and unfavorable demographic factors, such as physical health, education, and socioeconomic standing, as well as by both positive and negative events in his or her life. This point of view holds that people who were born into good circumstances (like a stable family life) and who experience good things more often

than bad things will probably have better subjective well-being than people who were born into bad circumstances.

- **Dispositional/construal theory of Subjective Wellbeing:** Dispositional theory states that SWB is mainly the result of biological and temperamental circumstances that influences the interpretation and judgment of life events and circumstances. There is very strong research showing evidence that genetic influences on predispositions have a role to play in how we perceive positive and negative life events which is also why dispositional theory can also be known as construal theory. It proposes that cognitive construal such as perceptions, beliefs and interpretations of life circumstances and events have the most significant influences on the individual's overall well-being.

Life circumstance theory also known as bottom-up theory served as theoretical framework for this research. The bottom-up theory assumed that an individual's overall satisfaction of life is dependent on his/her satisfaction in multiple concrete domains of life such as friendship, family, leisure, work and the like (Pavot and Diener, 2008). In context to the present study, if a student was having low academic performance (or CGPA) and increased level of functional impairment in different domains of his/her life, he or she would had a reduced level of subjective well being. But if the academic performance of the student was stable or acceptable and his/her functioning in social, occupational, personal and other important spheres of life was also satisfactory, then the subjective well being of that student would be high. Because according to this theory, life satisfaction and overall SWB results from the satisfaction or dissatisfaction within multiple life domains in which negative and positive experiences, events and emotions occur, so if there was a dissatisfaction in academic domain, the overall subjective well being would be influenced.

1.3 Literature review

➤ International studies

The current study aimed to examine the relationship among functional impairment, academic performance and subjective well being of university students with migraine. In the following section, literature relevant to the current study has been reviewed.

Chattu et al. (2020) carried out a study with the intention of determining how gender, type of school, and academic performance differ in terms of subjective well-being. In addition, the aim of this research study was to know which variables (student academic performance and socio-demographic variables) were predictive of well-being. Data was collected and transformed into linear scale from where it was exported into SPSS. One-way analysis of variation, t-test, regression and Pearson Correlation were performed. The sample of 535 participants was collected in which majority were females and were students of medical college. Students differed significantly among themselves in terms of FS and SWLS based on their gender and academic performance. In domains of wellbeing, a critical affiliation was displayed among SPANE and scholastic execution. High academic performance was correlated with high subjective well-being, implicating that subjective well-being has an important role to play in student's academic life.

Yang et al. (2019) investigated the relationships between academic achievement, self-esteem and subjective well being among students of Chinese elementary school. 807 students of elementary school with mean age of 9.43 years were included in this study. They completed a questionnaire which was multimeasure including the targeted variables at three points over the period of 18 months. After controlling the age, gender and family socioeconomic status of the participants, the results suggested that academic achievement

positively predicted later SWB in school. Moreover, researchers also observed a bidirectional relationship between SWB and self-esteem in school.

Ng et al. (2015) conducted a short-term longitudinal study to examine the role of subjective well being, specifically global life satisfaction (LS) in academic achievement. Keeping in view the engine model of well being (Jayawickreme, Forgeard, & Seligman, 2012), this research focused on life satisfaction as independent variable and academic performance as dependent variable and vice versa. By two waves of data, the researchers investigated the reciprocal relationship between academic achievement and life satisfaction (SWB) and also examined that how the relationships may be shaped by negative and positive affective experiences in educational institutions. The sample was 821 students of middle school. The results discovered that there is a positive reciprocal causal relationship between student's life satisfaction and grades even when baseline values of variables were controlled and there was a co-variation among demographics. This research empirically supported that life satisfaction does not weaken the academic achievement and vice versa but instead it synergistic and collaborative with better academic achievement. Moreover, the relation between the life satisfaction and academic performance of students were not moderated by negative and positive experiences in school.

Bigal et al. (2001) conducted a study in order to determine the predominance of Episodic Tension Type Headache (ETTH) and Migraine in university students and also aimed to find out its impact on quality of life and academic performance of the students. A sample of 1022 students was interviewed and two measuring tools were utilized in the study. Out of total students interviewed, 336 had ETTH and 256 reported Migraine. Migrants indicated 62.7% decrease in productivity in their academic performance when suffering from pain/headache and those with ETTH showed 24.4% reduction. 50% percent

of migraine sufferers tried to study during pain in contrast with 53.2% of those with ETTH. Moreover, this study showed higher impairment due to the presence of migraine than in presence of ETTH. Conclusively, this research confirmed that there is a profound and intense affect of headache on the academic performance of university students along with the evidence that this affect is much stronger among migraine sufferers than with ETTH.

Another study was conducted by Dahlöf and Dimenäs (1995) to assess the general well being and subjective symptoms in Migraineurs during the attacks. A further aim was to compare and evaluate the results with the outcomes of age and gender matched control group. One hundred and forty-five subjects were included in the study. They were asked about their complaints and their well being. Responses obtained from the migraine patients were compared and evaluated with control group, the result of which indicated that migraine sufferers perceived significant emotional distress and increased subjective symptoms, disturbed content, sleep and vitality and impaired general well being even between the attacks.

Migraine is linked with many negative impacts including impaired functioning, lower quality of life and Comorbid psychiatric symptoms. The purpose of this cross sectional research conducted by Smitherman et al. (2011) was to assess how Migraine can impact the quality of life, functional impairment and Comorbid symptoms among university students. A sample of 391 students (76.73% female) was gathered belonging from an age range of 18 to 50. The participants were asked to report the no. of school days they were absent due to migraine in last three months, the number of days they felt their functioning was impaired at home during last 3 months and their medical visits to any clinic or physician in last three months. The results indicated that migraine positive participants appeared to have reduced quality of life, high frequency of missed school days, elevated impaired functioning and increased medical visits. Furthermore, symptoms of

depression and Anxiety were also reported although differences in functional impairment were noticed after these Comorbid symptoms were controlled. So this study concluded and showed an association between episodic migraine and its negative impact on numerous domains among university students.

➤ **Indigenous studies**

Jawed et al. (2019) looked into migraine patients' prophylaxis patterns, the extent of their disability, and the ways in which they sought medical attention. Between April and May of 2018, 50 migraine sufferers at the Jinnah postgraduate medical center participated in this survey. The last section of the questionnaire included an assessment to learn about their functional disability. Other questions included demographic information, migraine management, and the impact of the condition on their sleep. Greater part of the patients was females. The MIDAS score was used to classify patients as follows: 22% have little or no disability; mild impairment, 14%; 24% have a moderate disability; and a significant disability, 40%. The majority of migraine patients, then, were found to have severe disabilities that made it hard for them to do their jobs and social activities. People in Pakistan do not regularly seek treatment for this kind of headache, despite the fact that the rate of disability caused by migraines is rising.

Bukhari and Khanum (2014) completed an examination exploring the relationship among academic performance and well being (depression, subjective happiness and life satisfaction) of college students. The sample of the study consisted of 300 college students (150 males and 150 females) with age range of 19-30 years. They were chosen from a variety of Karachi universities, and their educational level ranged from graduation to master's. The average cumulative grade point (CGPA) scores on the most recent exams were used to determine academic performance. According to the findings, academic

performance has a significant positive correlation with subjective happiness and life satisfaction and a significant negative correlation with depression. It was argued that students who were depressed were more likely to focus on irrational negative thoughts and had less sustained attention for cognitive tasks, which damage their academic performance. On the other hand, academic performance positively correlated to happiness and life satisfaction. The higher the academic performance of students, the happier and more satisfied the students are with their lives.

Summary of literature review

It is evident from the literature reviewed in the above section that academic performance and subjective well being has a bidirectional relationship. Academic performance is the predictor of a student's subjective well being and vice versa. Moreover, migraine has a negative effect on academic performance and subjective well being. It is also associated with functional impairment and causes disability or functional limitations among people. There is, however, no recent study yet that has examined the role of functional impairment on subjective well being. Almost all of the studies discussed above are quantitative and have used correlational and longitudinal research design.

1.4 Rationale:

Migraine is a type of chronic headache which influence more than ten percent of the world's population (Robbins, 2010) and 22.7% of Pakistan's population (WHO, 2017) affecting sleep process, functional impairment, productivity, quality of life, academic performance and subjective well being of the individuals. Migraine is being familiarized as a significant health problem influencing the quality of life and a main cause of morbidity in young adults specially students. Students throughout their university life often report high levels of anxiety, depression, stress and irregular sleep, all of which are associated with migraines. According to the available statistics, the level of migraine is rising in both general populations and university students. This study aimed to identifying relationship between functional impairment, academic performance and subjective well being of university students with migraine. Most of the previous studies conducted on migraine in Pakistan were about the prevalence of migraine, its triggering factors, perception, pre and post treatment effects, predictors but had not been done on present study's variables including functional impairment and subjective well being. Moreover, numerous studies had been conducted on the migraine patients worldwide but there were a limited number of researches on the effect of migraine among university students. Furthermore, there was no recent study yet that has examined the role of functional impairment on subjective well being in Pakistan. So, this research filled these gaps.

The current research would be useful in developing interventions for enhancing well being of students suffering from migraine, creating awareness about the impact of functional impairment and academic performance on the SWB of students, in health psychology programs and would tend to contribute in literature to indigenous studies.

1.5 Objectives

- To investigate the relationship between Functional Impairment, Academic Performance and Subjective well being of university students suffering from Migraine.
- To identify the role of functional impairment and academic performance as a predictor of subjective well being of university students with Migraine.

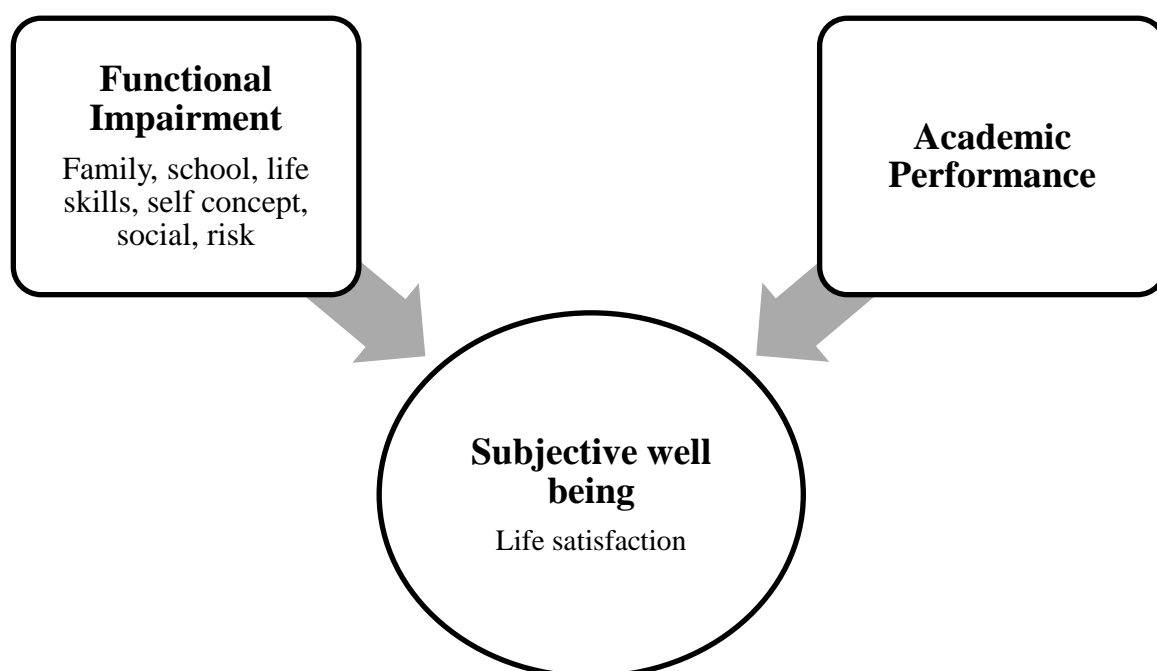
Hypotheses

- There is likely to be a significant relationship between functional impairment, academic performance and subjective well being of university students with Migraine.
- Functional impairment and academic performance are likely to be predictors of subjective well being.

Proposed Theoretical Model

Figure 1.1

Model of functional impairment, academic performance and subjective well being of university students with migraine.



Chapter II

Method

2.1 Research design

The correlational research design was used for this research. It is a type of research design which tends to investigate relationship between two or more variables without manipulating them (shaugnessy, 2012).

2.2 Participants

Purposive sampling was used to gather the data of 75 participants from public and private universities of Pakistan. 18 male and 57 female participants were recruited for this study. The age range for the participants was 18-28 years. Priori analysis was performed through G-power to assess the sample size. With the medium effect size ($f^2 = 0.15$), an α of 0.05, power of 0.95, and linear regression model, G-Power (3.1.9.7), indicated that a minimum of 74 participants were recruited for this study.

2.3 Inclusion Criteria

- Participants diagnosed with “Migraine” were included in the study.
- Participants with CGPA above than 2.5 were included in the sample.
- Participants with age range of 18-28 years were included.

Exclusion Criteria

- Participants whose marital status was married, divorced, widowed were excluded from the study in order to control the effect of these demographics on subjective well being.
- Participants doing part time job or full time job were excluded from the study because job stress could impact the individual’s subjective well being.
- Participants with any psychotic and neurological disorders were also excluded from the research.

Table 2.1*Sociodemographic Characteristics of Participants (N =75)*

Variables	M (SD)	f (%)
Age	21.49 (1.68)	
Gender		
Men		18 (24)
Women		57 (76)
Years of Education		
Undergraduate (16 years)		60 (80)
Masters (18 years)		15 (20)
CGPA	3.46 (0.33)	
Number of migraine Attacks per Month		
0-5		67 (89.3)
6-10		3 (4.0)
11-15		5 (6.7)
Migraine Triggers		
Stress		40 (53.3)
Sleep changes		17 (22.7)
Family history		6 (8.0)
Physical factors		3 (4.0)
Light		1 (1.3)
Food		5 (6.7)
Weather changes		3 (4.0)

Note. Men = 18; Women = 57, M = mean, SD = Standard Deviation, f = Frequency, % = Percentage

2.4 Conceptual and Operational definitions:

1. Functional Impairment: Functional impairment is defined as limitations due to any disease, as individuals with an illness may not perform certain functions on daily basis.

One can operationally relate the concept of “functional impairment” with “Disability” according to International Classification of Functioning, Disability and Health (WHO, 2001).

2. Academic Performance: Academic Performance refers to the outcome of the education and the extent to which a teacher, student or an institution achieving their educational goals over a specific period of time (Narad& Abdullah, 2016). This term was operationally defined by the CGPA achieved by participants.

3. Subjective Well-being: Subjective well being can be conceptually defined as a person’s affective and cognitive evaluations of his or her life (Diener 2002). This term operationally refers to how happy or content an individual is with his or her life and would want to change something about it or not (Currie et al, 2008).

2.5 Measures

1-Demographic Form: A demographic sheet was administered to the participants to obtain information about their age, gender, education and marital status, no. of migraine attacks per month, CGPA and migraine triggers.

2- ID-Migraine screening test: ID Migraine is a three-item screening test used for rapid diagnosis of migraine. It consists of three statements to which the respondent is supposed to answer as YES or NO. Answering “yes” to two out of three of these three simple questions effectively identifies migraine sufferers.

3-Weiss Functional Impairment Rating Scale- Self Report (WFIRS-S): Weiss functional Impairment Rating Scale is a measuring tool developed by Margaret Danielle Weiss. It consists of 70 items and is based on 7 subscales that measure the functional impairment from 7 domains: family, work, school, life skills, self concept, social and risk. The total Cronbach’s alpha value for this scale is 0.939 and individual values for family,

school, life skills, self-concept, social and risk are 0.78, 0.89, 0.79, 0.90, 0.83 and 0.89 respectively. Every item is scored a 5-point Likert scale, where 0 represents “Never or Not at all”, 1 represents “Sometimes or Somewhat”, 2 represents “Often or Much” and 4 represents “Very Often or Very much”. This scale also consists of an option “Not Applicable” for items that are not applicable to the participants. If one or two items are scored “2” or one item scored “3” in any domain would define impairment in that domain. In most domains, mean item score is “1” with the exception of risky activities. The scale’s reliability is 0.81.

4-Satisfaction with Life Scale (1985): Satisfaction with Life Scale, developed by Diener, Emmons, Larsen and Griffin, is a 5-item scale and focuses on measuring the life satisfaction component of subjective wellbeing, reflecting the subjective quality of mental health and life (Pavot and Diener, 2009). It is a 7 point Likert type scale where 1 represents “Strongly Disagree” and 7 represent “Strongly Agree”. A score of 20 represents a neutral point. Scoring between 5 till 9 shows that the participant is extremely dissatisfied with their life and score ranging from 31 till 35 indicates extreme dissatisfaction with life. In the current study, the Cronbach Alpha value for this scale is 0.83 which also indicates that the internal consistency of this scale is high. It also has a good test retest correlation i.e.0.84 (Diener et al. 1985).

2.6 Procedure:

In order to conduct this research, permission letter was approved from the Department of Applied psychology. Permissions were requested from the original authors of all the respected tools used in this research (i.e. Weiss Functional Impairment Rating Scale-Self Report and Satisfaction with Life Scale). Participants were approached through both public and private universities after obtaining permission from respective authorities.

The participants were obtained from Kinnaird College, Punjab University, Forman Christian college, GC university, UCP, FAST, LUMS, Lahore College and LSE.

A pilot study was conducted before the main study to check the time duration, language comprehension, suitability and feasibility of the research study. The data was collected online and in person. The questionnaire form was sent to 10 university students from different universities and colleges. The participant reported 10-15 minutes for completing the questionnaire. The participants found the questionnaire easy to understand and gave no suggestions for any improvements.

The data was collected online and in person. Students falling under the category of inclusion criteria were briefed about the research and its significance. They were provided with verbal and written informed consent, and were explained about their rights as participants in detail. Their privacy and confidentiality was ensured. After signing the informed consent, they were provided with ID Migraine, a three item screening test in order to screen out the Migraineurs and a Demographic sheet and then they were asked to fill out the set of study questionnaires. Some data was also collected through online Google Forms. After the collection of data, statistical analysis was carried out to test the relationships between IVs and DV. It took 3 months (December-February) to complete the data collection process. Only those participants were included who met the inclusion criteria. A total of 92 responses were received, out of which 17 responses were discarded and 75 were considered for the study. After the data had been collected, statistical analysis was done out using Statistical Package for Social Sciences (SPSS) and the results were compiled.

2.7 Ethical considerations

All the ethical guidelines were obliged throughout the research. All participants were asked for their consent prior to the study and were briefed about the topic of the research. They were clearly informed that their participation is voluntarily and they can withdraw from the research without any penalty or hesitation at any point of time. The information provided by the participants was only accessed by the researcher and was used only for research purposes. Their confidentiality and anonymity were protected. All the participants were provided access to the research results on demand.

2.8 Statistical analysis

The 21st version of the Statistical Package of Social Sciences (SPSS) was used to analyze data. To analyze the relationship between Functional Impairment, Academic performance and Subjective well being, Pearson product moment correlation was used. For the identification of the predictors of subjective well being among university students with Migraine, Multiple hierarchal Regression was used.

Chapter III

Results

The current study looked into the association between migraine students' functional impairment, academic performance and subjective wellbeing. The study tested the hypothesis using inferential statistics. The study variables were compared using the Pearson Product Moment Correlation. Multiple Hierarchical Regression was utilized for prediction.

3.1 Descriptive Statistics

The study tested the hypothesis using inferential statistics. The study variables were compared using the Pearson Product Moment Correlation. Multiple Hierarchical Regression was utilized for prediction. The scales and subscales include Family, School, Life skills, Self-concept, social, risk and Satisfaction with Life Scale.

Table 3.1

Psychometric Properties of Study Variables (N = 75)

Variables	M	SD	Range	Cronbach's a
Functional Impairment				
Family	6.91	4.80	0-24	.78
School	10.39	7.82	0-33	.89
Life Skill	13.89	6.96	0-36	.79
Self-concept	4.47	4.38	0-15	.95
Social	8.85	6.05	0-27	.83
Risk	4.89	6.38	0-42	.89
Satisfaction With Life Scale	20.41	7.29	5-35	.83

Note: M = mean; SD = Standard Deviation, Weiss Functional Impairment Rating Scale include 6 subscales.

Cronbach alpha values show reliability of questionnaires. Cronbach's alpha of Family and Life Skills shows fair internal consistency. Social, School, Risk and Satisfaction with Life Scale shows good reliability. While Self-concept show excellent reliability. The data was normally distributed and the values indicated that there was no significant skewness and kurtosis in the entire sample. All the scales and subscales fall within the range of ± 1.96 (at alpha level 0.05) except Risk subscale which falls within the range of ± 3.30 (at alpha level 0.001).

3.2 Pearson Product Moment Correlation

Table 3.2

Pearson Product Moment Correlation Coefficient among Functional Impairment, Academic Performance and Subjective Well-being among University Students with Migraine (N=75)

Variables	<i>n</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Family	75	.86	.60	-----							
2.School	75	.94	.71	.60**	-----						
3.Life Skill	75	1.16	.58	.76**	.66**	-----					
4.Self- concept	75	1.49	.88	.53**	.51**	0.66**	-----				
5.Social	75	.98	.67	.48**	.64**	.63**	0.62**	-----			
6.Risk	75	.35	.46	.43**	.52**	.50**	.25*	.61**	-----		
7.CGPA	75	3.46	.33	-.06	-.21	.03	-.06	-.08	-.05	-----	
8.SWB	75	4.08	1.46	-.26*	-.18	-.25*	-.47**	-.27*	-0.21	-.04	-----

Note: *M* = mean; *SD* = standard deviation; *N* = sample

* $p < .05$. ** $p < .01$. *** $p < .001$

Pearson product moment correlation analysis was used to investigate the relationship between Functional Impairment, Academic Performance and subjective well being among university students with migraine. The results revealed no significant relationship between the CGPA and Subjective Wellbeing of university students with migraine. Moreover, Risk and School had no significant relationship with Subjective wellbeing.

However, the results indicated that there is a significant, negative and weak relationship between Family and Subjective Wellbeing among students of university. This suggests that the more problems with the family, the less is the subjective wellbeing of the individual. Life skill showed a significant, negative and weak relationship with Subjective Wellbeing implying that university students who have problems related to their life skills are less likely to have overall good Subjective Wellbeing. Moreover, Self-concept has a significant, negative and strong correlation with Subjective Wellbeing. This suggests that students with not a good concept about self are less likely to have Subjective Wellbeing. The results further indicated a significant, negative and weak relationship between Social and Subjective Wellbeing. This means that students with problems in their social life are less likely to have overall wellbeing.

3.3 Multiple Hierarchical Regressions

Multiple Hierarchical Regression was done to identify predictors of Subjective Wellbeing of university students with Migraine. CGPA and Subscales of Functional Impairment i.e. Family, School, Life skills, Self-concept, Social and Risk were entered as predictor variables in regression model. Subjective Wellbeing was entered as outcome variable.

No influential cases were observed in the data. All regression assumptions were fulfilled. The assumption of independent error was met as the value of Durbin Watson (1.78) was between the acceptable range of 1 and 3. The assumption of no perfect multicollinearity was tested by checking the tolerance values, and the assumption was met because all the values were greater than 0.2. The assumptions of homoscedasticity, linearity and normally distributed errors were also met.

Table 3.3

Multiple Hierarchical Regression showing Functional Impairment and Academic Performance as predictors of Subjective wellbeing of University students with migraine (N=75)

Predictors	B	95% CI for B		SE B	β	R ²	ΔR^2
		LL	UL				
Model 1						.27***	.27***
Constant	5.04	4.34	5.74	.35	-----		
Family	-.30	-1.09	.50	.40	-.12		
School	.25	-.38	.88	.32	.12		
Life-skill	.57	-.41	1.56	.49	.23		
Self-concept	-	-1.56	-.52	.26	-.63**		
	1.04						
Social	.23	-.51	.96	.37	.11		
Risk	-.78	-1.70	.13	.46	-.25		
Model 2						.28	.01
Constant	6.18	2.74	9.62	1.72	-----		
Family	-.32	-1.11	.48	.40	-.13		
School	.19	-.46	.85	.33	.09		
Life-skill	.65	-.36	1.67	.51	.26		
Self-concept	-	-1.57	-.53	.26	-.63**		
	1.05						

Social	.23	-.51	.98	.37	-.11
Risk	-.78	-1.70	.13	.46	-.25
CGPA	-.33	-1.31	.65	.49	-.07

Note: CI = confidence interval; LL = lower limit; UL = upper limit ; *p<.05. **p<.01. ***p<.001

In model 1, different domains of functional impairment (family, school, life skills, self-concept, social and risk) were entered as predictor variables of Subjective Well-being. The regression model was significant, $R^2 = .27$, $F(6, 68) = 4.22$, $p < .001$, explaining 27% of variance in the dependent variable. In model II, academic performance along with 6 dimensions of functional impairment was entered as predictors of subjective wellbeing. The model was not significant, $R^2 = .28$, $F(7, 67) = 3.66$, $p < .001$. When the effect of model I was excluded from model II, the regression model was not significant, $\Delta R^2 = .01$, $F(1, 67) = .50$, $p < .001$. Among all the predictors entered, one dimension of Functional Impairment i.e. Self-concept emerged as significant negative predictor of Subjective Wellbeing among University Students with Migraine. This suggests that university students with migraine who have weak and negative concept about themselves are less likely to have Subjective Wellbeing.

Chapter IV

Discussion

The study aimed to find the relationship between functional impairment, academic performance and subjective wellbeing of university students with migraine. It also aimed to identify the role of functional impairment and academic performance as predictors of subjective wellbeing. The results of the study are discussed in this chapter with the help of previous researches.

H₁: There is likely to be a significant relationship between functional impairment, academic performance and subjective well-being of university students with migraine.

The hypothesis was partially approved. By correlational analysis, a significant negative relationship between a few dimensions of functional impairment and subjective wellbeing was revealed. Family, life skills, self-concept and social domains found to have a significant negative relationship with subjective wellbeing. This means that those students who suffer from migraine have problems with their family, have difficulty related to life skills, have weak concept of self or self awareness and faces difficulty in their social life. The more they face these difficulties in their life, the less is their subjective wellbeing. These results line up with the prior research. In 2016, a study was published in Journal of Affective Disorders which indicated a strong association of functional impairment with lower level of wellbeing further suggesting that this relationship was stronger for people with mental health conditions.

These findings can be explained in terms of Life Circumstance Theory, which also serves as a theoretical framework for this study, which states that an individual's overall satisfaction of life is dependent on his/her satisfaction in multiple concrete domains of life such as friendship, family, leisure, work and the like (Pavot and Diener, 2008). The

correlational analysis shows the influence of impairment in Family, Life skill, Self-concept and Social domain on the subjective wellbeing of university students with migraine.

Migraine limits the students' functioning in multiple domains leading to problems with family members and family matters; problems with daily life activities such as sleeping, managing house chores and avoiding exercise; having a negative perception about one's self such as feeling incompetent and discouraged; and having problems in socializing such as problems in making friends or getting into arguments effecting their overall wellbeing. Students with functional impairment may experience a sense of isolation or exclusion from their peers due to their limitation in several aspects of life. This can result in lower levels of self-esteem and a lack of social support, which are essential factors for subjective well-being.

The results of correlational analysis further revealed that academic performance did not have a significant relationship with subjective well-being. Multiple empirical studies including literature review and meta-analysis have been conducted to identify the relationship between academic performance and subjective wellbeing concluding that higher performance leads to better well being. Similarly, in contrast to the current study, some previous researches demonstrated that academic performance and subjective wellbeing had a significant relationship with each other. Chattu et, al., (2020) maintained in his study the significant association between these two variables. Moreover, another research reported a positive correlation between academic performance and life satisfaction (Bukhari and Khanum, 2014). However, our data disapprove the fact that subjective wellbeing of university students with migraine is affected by their academic performance.

Usually students who are diagnosed with migraine perform low in their academic as migraine can cause fatigue, pain and difficulty in concentration. This poor performance can lead to poor overall wellbeing of students as good academic performance provides a sense

of competence, achievement and a sense of purpose which contribute to their wellbeing. But the present study disapprove this assumption stating that whatever the academic status is of the student, his/her subjective wellbeing is not influenced by it because Bucker et. al., (2018) stated in their study it is not necessary that low achieving students report low well being and high scoring students report high well being.

H₁: Functional impairment and academic performance are likely to be predictors of subjective well being.

The hypothesis was partially approved. Results of multiple hierarchal regression showed that academic performance which was measured in terms of CGPA was not significant predictor of subjective wellbeing. While one dimension of functional impairment i.e. Life skill emerge as predictor of subjective well-being.

Self-determination theory can explain how weak concept of self leads to lower subjective wellbeing. According to SDT, there are three fundamental psychological needs that individuals strive to fulfill: autonomy, competence, and relatedness. When these needs are satisfied, individuals experience greater well-being and optimal functioning. However, impairment in self-concept can negatively influence these basic needs as the individual may require assistance in making choices and decisions in his/her life. This inability of making decisions and carrying out daily activities causes the person to experience frustration, sense of incompetency, discouragement and reduced self-esteem. This reduced self-esteem and incompetency negatively impact their satisfaction with life.

When someone has a weak self-concept, they may struggle to identify their strengths and positive qualities, focusing instead on their perceived weaknesses or shortcomings. They may experience difficulty in forming a clear and coherent sense of identity and have a limited belief in their ability to navigate challenges or achieve their

goals. This automatically impacts the subjective wellbeing of individuals. Some previous researches also support the current hypothesis. A study conducted by Atienza and colleagues (2016) found that students with functional impairment experienced lower levels of subjective well-being compared to students without functional impairment. A reason can be that students, especially with migraine, may experience additional stress due to the need to adapt to their limitations which can impact their wellbeing.

The current study maintains that academic achievement does not predict the subjective wellbeing of university students who are suffering from migraine. However previous literature shows that academic achievement predicts the later wellbeing of students (Yang, 2019). The underlying belief can be good academic performance provides a sense of competence and better opportunities for career development which can contribute to their satisfaction with life. However, current research disapproves this fact. One explanation could be that the students with migraine may be able to adapt to their situation and their disorder and may be able to control the effect of migraine on their academic performance and overall wellbeing.

4.2 Strengths of the study

The current study has several strengths to be highlighted. This research helps to understand the complex relationship of different variables (functional impairment, academic performance and subjective wellbeing). This study helped fill the contextual gap in the literature as in our knowledge; it is the pioneer study that examined the role of functional impairment on subjective well being in Pakistan. Moreover, this study also contributes to the limited number of researches on the effect of migraine among university students because most of the studies conducted on migraine worldwide are on migraine patients. The data was homogeneous as all the participants recruited for the study were unmarried and unemployed. Another strength of the present study is that it would be useful

in creating awareness about the impact of functional impairment and academic performance on the subjective wellbeing of the students.

4.3 Limitations

Several limitations must be considered before evaluating its results. A significant limitation of this study was that it consisted of small sample size i.e. 75 participants only. Moreover, the sample contained only 18 males which was a small number as compared to female participants (N=57). The study also failed to take in account an important factor related to migraine i.e. “onset of migraine” which can have an impact on the results of the study.

4.4 Recommendations

Future research could work with a larger sample size in order to produce more representative and more accurate results. Future studies can conduct this research to explore the relationships of the study variables on adolescent population. This research studied that impact of functional impairment and academic performance on the life satisfaction component of subjective wellbeing. Future researchers can focus on the emotional or cognitive component of subjective wellbeing.

4.5 Implications

The current study found out the relationship between functional impairment, academic performance and subjective wellbeing of university students with migraine. The findings would be useful in developing interventions for enhancing well being of students suffering from migraine, creating awareness about the impact of academic achievement and functional impairment on the SWB of students and in health psychology programs.

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Appendix A
Questionnaire Permission Form

← [Icons] 20 of 469 < >

Scale permission Inbox x [Icons]

J **Jabale Noor** <jabalenoor22@gmail.com> Thu, 5 Jan, 17:44 ☆ ↶ ⋮
to margaret.weiss@icloud.com ▼

Respected,
I am a student of B.Sc Applied Psychology at Kinnaird College For Women, Lahore. I am writing this to ask written permission to use the scale: Weiss Functional Impairment Rating Scale (WFIRS) for my research study. I would appreciate it if you grant me the permission to use this scale.
I would also appreciate receiving the copies of: (1) the test questionnaire, (2) the standard instructions for administering the test, and (3) the scoring procedures.

Regards,
Jabal-e-noor

M **Margaret Danielle Weiss** <margaret.weiss@icloud.com> Thu, 5 Jan, 20:49 ☆ ↶ ⋮
to Betty, me ▼

I have copied your email to the person who can respond.
...

B **Betty Mangos** <betty.mangos@mhs.com> ☆ ↶ ⋮
to me ▼

Hello Jabale,

Thank you for your email and your interest in the WFIRS. I hope you are well.

Dr. Weiss has sent your email to me at Multi-Health Systems Inc. , MHS, because MHS is the publisher and copyright owner of the WFRIS.

Can you please confirm if you would like to use the WFIRS exclusively for research?
Can you tell me if you would like to use the WFIRS Parent or WFIRS Self-Report.

Thank you,
Betty

BETTY MANGOS

EMAIL: Betty.mangos@mhs.com

3770 Victoria Park Avenue
Toronto, ON, Canada M2H 3M6

← [Icons] 21 of 469 < >

Scale permission Inbox x [Close] [Print] [Share]

Jabale Noor <jabalenoor22@gmail.com> Thu, 5 Jan, 17:37 ☆ ↶ ⋮
to corrigan.1 ▾

Respected,
I am a student of B.Sc Applied Psychology at Kinnaird College For Women, Lahore. I am writing this email to ask written permission to use the scale: Satisfaction With Life Scale (SWLS) for my research study. I would be grateful if you grant me the permission to use this scale.
I would also appreciate receiving the copies of: (1) the test questionnaire, (2) the standard instructions for administering the test, and (3) the scoring procedures.

regards,
Jabal-e-noor

John Corrigan <johncorrigan1@me.com> Thu, 5 Jan, 18:23 ☆ ↶ ⋮
to me ▾

Dear Jabal-e-noor,

Thank you for this inquiry; however, I am not the creator of the Satisfaction With Life Scale. Ed Diener is. Because it is so popular he addresses permission to use it at this website: <<http://labs.psychology.illinois.edu/~ediener/SWLS.html>> . There he says:

"The scale is copyrighted but you are free to use it without permission or charge by all professionals (researchers and practitioners) as long as you give credit to the authors of the scale: Ed Diener, Robert A. Emmons, Randy J. Larsen and Sharon Griffin as noted in the 1985 article in the Journal of Personality Assessment."

Appendix B
Informed Consent

CONSENT FORM

The current research is being conducted by Jabal-e-noor (B.Sc Applied Psychology, Kinnaird College for Women University), under the supervision of Ma'am Mahira Ahmad. It aims to find out the impact of academic performance and functional impairment on subjective wellbeing of university students with migraine.

Selection basis:

- Participants from age range of 18-28 were included
- Participants diagnosed with "Migraine without Aura" were included.
- Participants with CGPA above than 2.5 were included in the sample.
- Participants who were married and employed were not included in the study.

This questionnaire will require 8-10 minutes to fulfill. Your participation is completely voluntary, and you have the right to withdraw at any point during the research, without any penalty. Your confidentiality will be maintained throughout the study, and your responses will be used for research purposes only. In case of any questions, please contact:

Jabalenoor22@gmail.com

For the participant:

1	I understand the terms and conditions of this study.	
2	I understand that my participation in this study is voluntary and that I have rights to withdraw at any point without any penalty.	
3	I have been given the opportunity to satisfy my concerns regarding participation.	
4	I agree to sign this informed consent.	

Signature of the participant: _____

Appendix C
Sample Copy of Questionnaires

Demographic sheet

Age: _____

Gender: Male

Female

Marital Status: Married

Unmarried

Years of Education: Undergraduate (16 years)

Masters (18 years)

CGPA: _____

Number of migraine attacks per month: 0-15

6-10

11-15

Migraine triggers: Stress

Sleep changes

Family history

Physical factors (e.g. physical exertion)

Light

Food

Weather changes

Employment status: Unemployed

Part time job

Full time job

History of any psychological or neurological disease: Yes

No

Type of migraine: _____

Migraine Screening Questionnaire

During the past 3 months, did you have the following with your headaches?

1. You felt nauseated or sick to your stomach?

YES NO

2. Light bothered you (a lot more than when you don't have headaches)?

YES NO

3. Your headaches limited your ability to work, study, or do what you needed to do?

YES NO

Weiss Functional Impairment Rating Scale Self-Report (WFIRS-S)

		Never or not at all	Sometimes or somewhat	Often or much	Very often or very much	Not applicable
A	FAMILY					
1	Having problems with family					
2	Having problems with spouse/partner					
3	Relying on others to do things for you					
4	Causing fighting in family					
5	Makes it hard for family to have fun together					
6	Problems taking care of the family					
7	Problems balancing your needs against those of your family					
8	Problems losing control with family					
B	SCHOOL					
1	Problems taking notes					
2	Problems completing assignments					
3	Problems getting your					

	work done efficiently					
4	Problems with teacher					
5	Problems with school administrators					
6	Problems meeting minimum requirements to stay in school					
7	Problems with attendance					
8	Problems with being late					
9	Problems with working with your potential					
10	Problems with inconsistent grades					
C	LIFE SKILLS					
1	Excessive or inappropriate use of internet, video games or TV					
2	Problems keeping an acceptable appearance					
3	Problems getting ready to leave the house					
4	Problems getting to bed					
5	Problems with nutrition					
6	Problems with sex					
7	Problems with sleeping					
8	Getting hurt or injured					
9	Avoiding exercise					

10	Problems keeping regular appointments with doctor/dentist					
11	Problems keeping up with household chores					
12	Problems managing money					
D	SELF-CONCEPT					
1	Feeling bad about yourself					
2	Feeling frustrated with yourself					
3	Feeling discouraged					
4	Not feeling happy with your life					
5	Feeling incompetent					
E	SOCIAL					
1	Getting into arguments					
2	Trouble cooperating					
3	Trouble getting along with people					
4	Problems having fun with other people					
5	Problems participating in hobbies					
6	Problems making friends					
7	Problems keeping friends					
8	Saying inappropriate					

	things					
9	Complaints from neighbors					
F	RISK					
1	Aggressive driving					
2	Doing other things while driving					
3	Road rage					
4	Breaking or damaging things					
5	Doing things that are illegal					
6	Being involved with police					
7	Smoking cigarettes					
8	Smoking marijuana					
9	Drinking alcohol					
10	Taking 'street' drugs					
11	Sex without protection (birth control, condom)					
12	Sexually inappropriate behavior					
13	Being physically aggressive					
14	Being verbally aggressive					

SATISFACTION WITH LIFE SCALE

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

- 7 - Strongly agree
- 6 - Agree
- 5 - Slightly agree
- 4 - Neither agree nor disagree
- 3 - Slightly Disagree
- 2 - Disagree
- 1 - Strongly disagree

_____ In most ways my life is close to my ideal.

_____ The conditions of my life are excellent.

_____ I am satisfied with my life.

_____ So far I have gotten the important things I want in my life.

_____ If I could live my life over, I would change almost nothing.

Appendix D
SPSS Outputs

Statistics

		Gender	Years of Education	Marital status	Migraine triggers
N	Valid	75	75	75	75
	Missing	0	0	0	0

Frequency Table**Gender**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	18	24.0	24.0	24.0
	Female	57	76.0	76.0	100.0
	Total	75	100.0	100.0	

Years of Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	16	60	80.0	80.0	80.0
	18	15	20.0	20.0	100.0
	Total	75	100.0	100.0	

Marital status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unmarried	75	100.0	100.0	100.0

Migraine triggers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	stress	40	53.3	53.3	53.3
	sleep changes	17	22.7	22.7	76.0
	family history	6	8.0	8.0	84.0
	physical factors	3	4.0	4.0	88.0
	light	1	1.3	1.3	89.3
	food	5	6.7	6.7	96.0
	weather cchanges	3	4.0	4.0	100.0
	Total	75	100.0	100.0	

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Age of the participant	75	18.00	26.00	21.4933	1.67955
Number of Migraine Attacks Per Month	75	1.00	18.00	3.8133	3.89627
CGPA	75	2.60	4.00	3.4575	.32734
Valid N (listwise)	75				

Number of Migraine Attacks Per Month

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1-5	67	89.3	89.3	89.3
6-10	3	4.0	4.0	93.3
11-15	5	6.7	6.7	100.0
Total	75	100.0	100.0	

Reliability**Scale: family****Case Processing Summary**

		N	%
Cases	Valid	75	100.0
	Excluded ^a	0	.0
	Total	75	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.787	.786	7

Scale: school

Case Processing Summary

		N	%
Cases	Valid	75	100.0
	Excluded ^a	0	.0
	Total	75	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.886	.888	11

Scale: life skill

Case Processing Summary

		N	%
Cases	Valid	75	100.0
	Excluded ^a	0	.0
	Total	75	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.808	.792	12

Scale: self concept

Case Processing Summary

		N	%
Cases	Valid	75	100.0
	Excluded ^a	0	.0
	Total	75	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.894	.895	5

Scale: social

Case Processing Summary

		N	%
Cases	Valid	75	100.0
	Excluded ^a	0	.0
	Total	75	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.833	.832	9

Scale: risk**Case Processing Summary**

		N	%
Cases	Valid	75	100.0
	Excluded ^a	0	.0
	Total	75	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.866	.885	14

Scale: SWB**Case Processing Summary**

		N	%
Cases	Valid	75	100.0
	Excluded ^a	0	.0
	Total	75	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.830	.830	5

Correlation

Descriptive Statistics

	Mean	Std. Deviation	N
Family	.8633	.60060	75
School	.9442	.71095	75
Lifeskill	1.1578	.58004	75
selfconcept	1.4933	.87631	75
social	.9837	.67207	75
risk	.3495	.45594	75
CGPA	3.4575	.32734	75
SWB	4.0827	1.45791	75

Correlations

		Family	School	Lifeskill	selfconcept	social	risk	CGPA	SWB
Family	Pearson Correlation	1	.598**	.759**	.525**	.478**	.432**	-.061	-.259*
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.606	.025
	N	75	75	75	75	75	75	75	75
School	Pearson Correlation	.598**	1	.657**	.508**	.637**	.519**	-.213	-.178
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.066	.126
	N	75	75	75	75	75	75	75	75
Lifeskill	Pearson Correlation	.759**	.657**	1	.661**	.631**	.504**	.030	-.254*
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.796	.028
	N	75	75	75	75	75	75	75	75
selfconcept	Pearson Correlation	.525**	.508**	.661**	1	.620**	.254*	-.061	-.472**
	Sig. (2-tailed)	.000	.000	.000		.000	.028	.605	.000
	N	75	75	75	75	75	75	75	75
social	Pearson Correlation	.478**	.637**	.631**	.620**	1	.605**	-.076	-.266*
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.515	.021
	N	75	75	75	75	75	75	75	75
risk	Pearson Correlation	.432**	.519**	.504**	.254*	.605**	1	-.050	-.214
	Sig. (2-tailed)	.000	.000	.000	.028	.000		.667	.066
	N	75	75	75	75	75	75	75	75
CGPA	Pearson Correlation	-.061	-.213	.030	-.061	-.076	-.050	1	-.036
	Sig. (2-tailed)	.606	.066	.796	.605	.515	.667		.758
	N	75	75	75	75	75	75	75	75
SWB	Pearson Correlation	-.259*	-.178	-.254*	-.472**	-.266*	-.214	-.036	1
	Sig. (2-tailed)	.025	.126	.028	.000	.021	.066	.758	
	N	75	75	75	75	75	75	75	75

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Regression

Model Summary^c

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.521 ^a	.271	.207	1.29841	.271	4.216	6	68	.001	1.780
2	.525 ^b	.276	.200	1.30360	.005	.459	1	67	.500	

- a. Predictors: (Constant), risk, selfconcept, Family, School, social, Lifeskill
- b. Predictors: (Constant), risk, selfconcept, Family, School, social, Lifeskill, CGPA
- c. Dependent Variable: SWB

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.649	6	7.108	4.216	.001 ^b
	Residual	114.639	68	1.686		
	Total	157.287	74			
2	Regression	43.429	7	6.204	3.651	.002 ^c
	Residual	113.858	67	1.699		
	Total	157.287	74			

- a. Dependent Variable: SWB
- b. Predictors: (Constant), risk, selfconcept, Family, School, social, Lifeskill
- c. Predictors: (Constant), risk, selfconcept, Family, School, social, Lifeskill, CGPA

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics		
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	
1	(Constant)	5.038	.349		14.439	.000	4.342	5.735						
	Family	-.297	.398	-.122	-.745	.459	-1.091	.498	-.259	-.090	-.077	.399	2.508	
	School	.250	.315	.122	.794	.430	-.378	.879	-.178	.096	.082	.454	2.201	
	Lifeskill	.573	.493	.228	1.162	.249	-.411	1.557	-.254	.139	.120	.278	3.594	
	selfconcept	-1.039	.260	-.625	-4.000	.000	-1.558	-.521	-.472	-.436	-.414	.439	2.276	
	social	.231	.373	.106	.619	.538	-.514	.975	-.266	.075	.064	.363	2.758	
	risk	-.783	.456	-.245	-1.720	.090	-1.692	.125	-.214	-.204	-.178	.528	1.893	
	CGPA													
2	(Constant)	6.182	1.724		3.587	.001	2.742	9.622						
	Family	-.315	.401	-.130	-.787	.434	-1.114	.484	-.259	-.096	-.082	.397	2.520	
	School	.191	.328	.093	.583	.562	-.463	.846	-.178	.071	.061	.422	2.367	
	Lifeskill	.650	.508	.259	1.280	.205	-.364	1.665	-.254	.154	.133	.264	3.785	
	selfconcept	-1.051	.261	-.632	-4.020	.000	-1.573	-.529	-.472	-.441	-.418	.437	2.286	
	social	.233	.374	.108	.623	.535	-.514	.981	-.266	.076	.065	.363	2.758	
	risk	-.783	.457	-.245	-1.713	.091	-1.696	.129	-.214	-.205	-.178	.528	1.893	
	CGPA	-.332	.489	-.074	-.678	.500	-1.309	.645	-.036	-.083	-.070	.895	1.118	

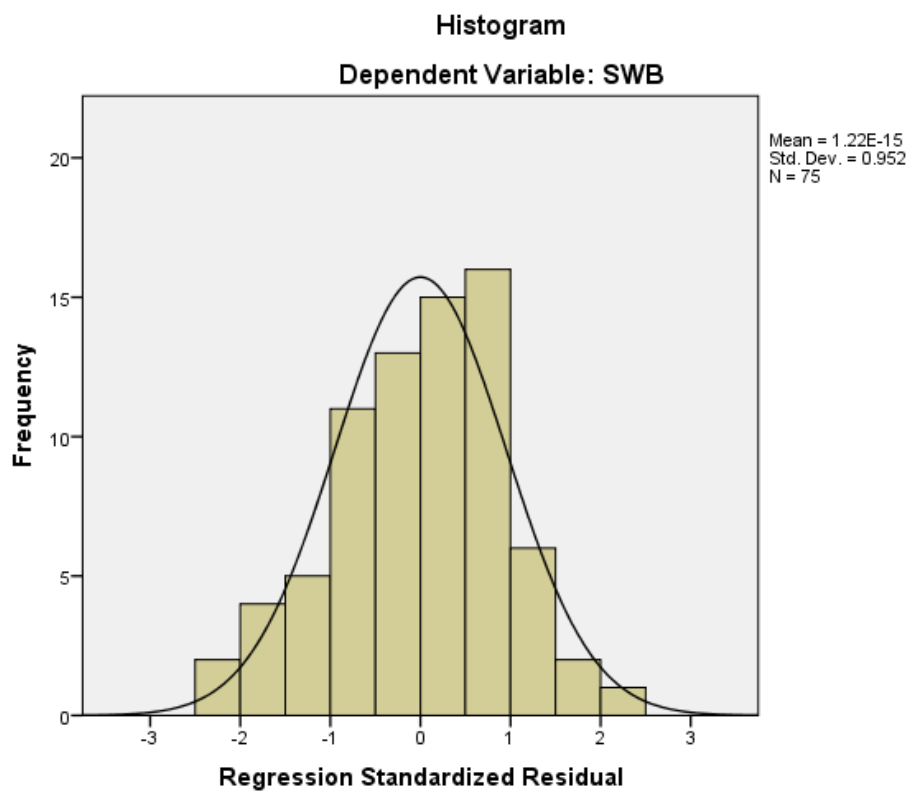
- a. Dependent Variable: SWB

Residuals Statistics^a

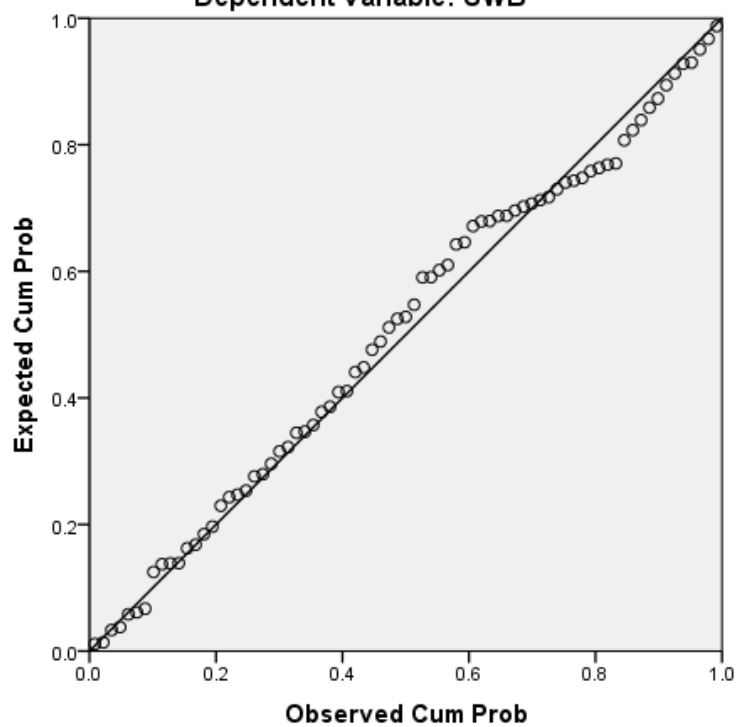
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.1953	5.5615	4.0827	.76608	75
Std. Predicted Value	-2.464	1.930	.000	1.000	75
Standard Error of Predicted Value	.205	.682	.411	.112	75
Adjusted Predicted Value	1.6496	5.4964	4.0858	.77882	75
Residual	-2.98163	2.92391	.00000	1.24041	75
Std. Residual	-2.287	2.243	.000	.952	75
Stud. Residual	-2.378	2.353	-.001	1.008	75
Deleted Residual	-3.22369	3.21776	-.00310	1.39441	75
Stud. Deleted Residual	-2.467	2.438	-.003	1.022	75

Mahal. Distance	.836	19.260	6.907	4.252	75
Cook's Distance	.000	.118	.016	.023	75
Centered Leverage Value	.011	.260	.093	.057	75

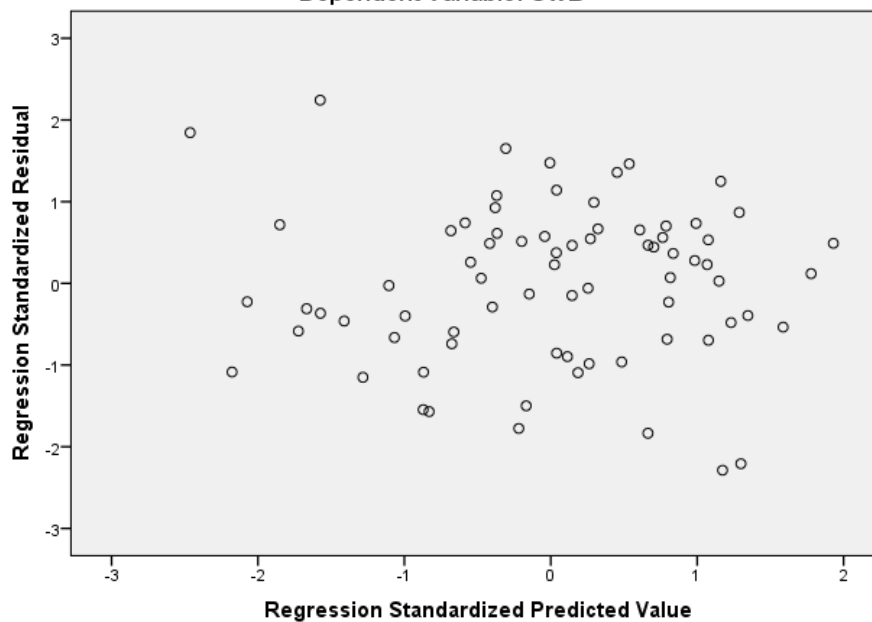
a. Dependent Variable: SWB



Normal P-P Plot of Regression Standardized Residual
Dependent Variable: SWB



Scatterplot
Dependent Variable: SWB



Appendix E
Plagiarism Report

<input type="checkbox"/>	Kanza Chaudhary	Negative life events, positive and negat...	11%			*		2005214006	05-May-2023
<input type="checkbox"/>	Fatima Altab	BA/BSc: June Defense 2023	13%			*		2007293003	00-May-2023
<input type="checkbox"/>	sheeza islam	thesis	15%			*		2007631591	00-May-2023
<input type="checkbox"/>	jabal e noor	jabal-e-noor	16%			*		2006461001	07-May-2023
<input type="checkbox"/>	Farzeen Awan	BA/BSc: June Defense 2023	10%			*		2007292277	00-May-2023
<input type="checkbox"/>	Fatima Sajjad	 BA/BSc: June Defense 2023	22%			*		2007294172	00-May-2023
<input type="checkbox"/>	noor fatma	thesis	27%			*		2005900532	06-May-2023