

# The Relationship between Happiness and Mental Health of Chittagong University Students

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## Abstract

This study examined the relationship between happiness and mental health among 300 undergraduate students (150 males, 150 females) at the University of Chittagong. The participants were selected conveniently. Participants completed the Oxford Happiness Questionnaire (OHQ) and the General Health Questionnaire-28 (GHQ-28). The Oxford Happiness Questionnaire was originally developed by Argyle and Hills (2002) and translated and adapted into Bangla by Uddin and Haque (2008). The General Health Questionnaire-28 was originally developed by Goldberg and Williams (1988) and translated and adapted into Bangla by Banoo (2001). Results revealed a relatively high average happiness score ( $M = 113.76$ ) alongside moderate levels of psychological distress ( $M = 28.30$ ). Correlation analysis indicated a significant negative relationship between happiness and overall mental health problems ( $r = -.65$ ,  $p < .01$ ), supporting previous findings from both local and international research. The results suggest that mental health and happiness are deeply interconnected and should be addressed together. Therefore, university administrations and policymakers should consider incorporating well-being initiatives such as mindfulness, gratitude exercises, and peer support programs into student services. Such efforts could not only improve mental health outcomes but also foster a more fulfilling and productive academic environment.

**Keywords:** happiness, mental health, university students

## Introduction

This study was going to investigate the relationship between happiness and mental health among the students of Chittagong University. There are some different constructs in psychology science that areas till in vagueness and need a variety of descriptive studies to research. One of the considerate issues in this science that consists of many theories is the—Happiness issue. In the present decade students' mental health problems are increasing day by day. This problem is very severe and dangerous for society as well as our nation. Happiness is positive key factor that contribute an important role in promoting mental well-being of a person. The investigation and application of positive human development is a new perspective that is needed now more and ever<sup>1</sup>. Experiencing happiness is important for our emotional and mental health. A stronger sense of happiness and well-being has been shown to lead to better relationships, increase social connection and contribution to the lives of others, as well as contributing to healthier mental well-being of students.

University students are individuals who enroll in higher education institutions to pursue a bachelor's or master's degree. In the contemporary academic environment, university students face mounting pressures from academic demands, social expectations, and personal transitions, all of which can significantly affect their mental well-being. As such, the concepts of happiness and mental health have gained increasing importance in understanding students' overall quality of life. Happiness, often defined as a subjective sense of life satisfaction and positive emotional experience, is not merely a pleasant state—it plays a critical role in academic performance, resilience, and interpersonal functioning. Similarly, mental health encompasses emotional, psychological, and social well-being, influencing how individuals think, feel, and act, particularly under stress or during challenge.

The American Psychological Association<sup>2</sup> defines happiness as an emotion of joy, gladness, satisfaction, and well-being. Happiness can be defined as an enduring state of mind that not only consisting of feelings of joy, contentment, and other positive emotions but also of a sense that one's life is

meaningful and valued<sup>3</sup>. Happiness is a combination of the presence of positive emotions and lack of negative emotions and satisfaction with one's life. The person with higher levels of happiness feels more relaxed and secure, makes decisions easier, works more efficiently and cooperates more, lives a healthy and more energetic life and finally has a more satisfactory life<sup>4</sup>. Happy people are the ones with an optimistic and happy

orientation; that is, they process and interpret information in such a way to lead to their happiness<sup>5</sup>. Martin Seligman proposed that psychological studies of happiness have decreased the problems and have improved the psychological well-being by creating a positive thought about human efforts in understanding these phenomena<sup>6</sup>.

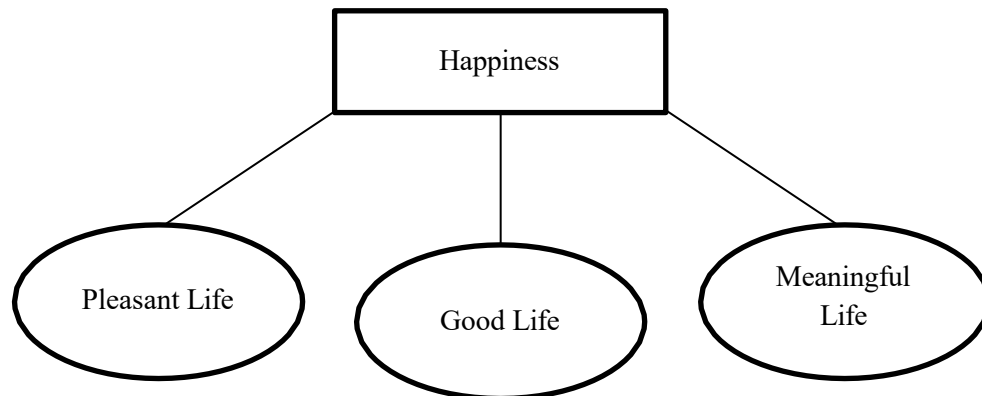


Figure1: Kinds of Happiness proposed by Seligman and Royzman, 2003

According to APA Dictionary of Psychology, Mental health is a state of mind characterized by emotional well-being, good behavioral adjustment, relative freedom from anxiety and disabling symptoms, and a capacity to establish constructive relationships and cope with the ordinary demands and stresses of life. The World Health Organization<sup>7</sup> has defined mental health is a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to contribute to his or her community. Mental health is the ability to communicate harmoniously, change and modify the personal and social environment and to solve personal desires and controversies in a logical, fair and suitable way. Mental health provides the person with the ability to disclose their thoughts and have a healthy interaction with the environment<sup>8</sup>. Mental well-being is the interaction between thoughts, feelings, and human behavior which is an integral and essential part of overall health, which can be defined in at least three ways as the absence of disease, as a state of the organism that allows the full performance of all its functions, or as a state of balance within oneself, and

between oneself and the physical and social environment.<sup>9</sup> Emotional Health relates to a person's psychological functioning, life-satisfaction and ability to develop and maintain mutually beneficial relationships that includes the ability to maintain a sense of autonomy, self-acceptance, personal growth, purpose in life and self-esteem. Staying mentally healthy is more than treating or preventing mental illness. Brain health issues are particularly important for young people because they lack experience coping with depression and other mental health issues<sup>9</sup>. The American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM) serves as a foundational framework for classifying and diagnosing mental health conditions<sup>10</sup>.

There is an inverse relationship between mental health severity and happiness levels which suggests that individuals with higher scores on the mental health disorder scale were more likely to report lower levels of happiness. Mental health and happiness play a crucial role in providing opportunities for individual and social improvement. Consequently, they can prepare grounds for national improvement and blooming of communities, including the scientific and academic communities,

especially the students and ensure their dynamism and efficiency. Obviously, mental health and happiness which are necessary components of student life have direct effects in these selected strata's learning and increase their scientific awareness. Various researchers have also revealed an association between the variables of mental health and happiness among the general population. Aghili et al.<sup>11</sup> conducted the research on mental health and happiness in Iran, which revealed that the individuals, who have high levels of mental health, have the level of happiness among youth. Salehi et al.<sup>12</sup> have studied the religious association with students' happiness and mental well-being. The findings showed the presence of a positive significant correlation between happiness, mental health and religiosity among students. A study on mental health and happiness in Tehran on adults, age ranged from 15-29 years revealed a significant positive correlation between mental health and happiness in youth<sup>6</sup>.

The study investigated the relationship between mental health and happiness in youth for prediction of a positive association between the two variables the MMPI-2 and the Happiness Scale were used to gather data from a sample of young people aged 15 to 29. The findings indicated a strong positive correlation between happiness and mental health.

Another study on the relationship between happiness, mental health, and emotional intelligence in 120 medical science students found that emotional intelligence, happiness, and mental health are significantly positively correlated<sup>13</sup>. Mostafai<sup>14</sup> carried out a comparison research on happiness and mental health. 720 females' answers to the General Health Questionnaire (GHQ) and Happiness Inventory were gathered. The results showed that although non-athletes had low levels of happiness and mental health, athletes had high levels of both.

From the above literature review, we can see that happiness always brings satisfaction to people. Therefore, there is a strong positive relationship between happiness and mental health.

The purpose of the current study is to look at the relationship between happiness and mental health among students of university of Chittagong. In Bangladesh academia, the study of challenges and concerns pertaining to university students' happiness and mental health has not yet reached a mature state.

The literature review indicated that more studies are required particularly on the mental health and happiness of university students in Bangladesh. The results of the studies will contribute to the body of information already available about the importance of demographics factors in the relationship between youth happiness and mental health. The current study would offer guidelines for health professionals and counselors working in educational settings to lessen their clients' unhappiness by suggesting such remedies that can improve their mental health, in light of the idea that happiness is a predictor of mental well-being. Mental health issues among university students in Bangladesh are rising, yet the role of happiness in emotional well-being remains under explored. While global studies show a strong negative link between happiness and psychological distress, local research on this relationship is limited.

This study aims to fill that gap by examining the connection between happiness and mental health among students at the University of Chittagong, offering insights for improving student support and well-being strategies. Previous research has yielded conflicting results, suggesting that men have a higher self-rated mean score for happiness and mental health than women<sup>15</sup> found no significant gender differences. The objectives of the study are:

1. To explore the level of happiness among Chittagong University students.
2. To explore the level of mental health among Chittagong University students.
3. To examine the relationship between happiness and mental health among Chittagong University students.
4. To investigate the relationship among happiness, somatic symptoms, anxiety and insomnia, social dysfunction and depression.
5. To explore whether there is any difference between male and female students in terms of happiness and mental health.

## **Materials and Methods**

### ***Participants***

The purpose of this study was to investigate students' mental health and happiness at University of Chittagong. 300 students were conveniently selected to

fill out the questionnaire. The inclusion of male and female students was done at random. Participants in

this study ranged in year from first-year to master's level and between the ages of 19 and 26.

Table 1. Socio-demographic characteristics of participants (n=300)

Variables		n	%
Age (years)	19	5	1.7
	20	38	12.7
	21	51	17.0
	22	60	20.0
	23	68	22.7
	24	39	13.0
	25	31	10.3
	26	8	2.7
Gender	Female	150	50.0
	Male	150	50.0
Socio-economic Status	Lower class	13	4.3
	Lower middle class	49	16.3
	Middle class	213	71.0
	Higher middle class	24	8.0
	Upper class	1	.3

### Measures

In the present study the following instruments were used:

- The Oxford Happiness Questionnaire-29 (OHQ-29)
- The General Health Questionnaire-28 (GHQ-28)

#### *Bangla version of Oxford Happiness Questionnaire-29*

The Oxford Happiness Questionnaire is a compact scale used to assess psychological well-being. Individual differences and personality, Originally, published in the Journal of Personality and Individual Differences in 2002, the Oxford Happiness Questionnaire was developed by Oxford Brookes University's Hills and Argyle<sup>15</sup>. The Oxford Happiness Questionnaire (OHQ) Bengali version used in this study<sup>16</sup>. A person's present degree of happiness can be determined with the use of this questionnaire. With a 6-point Likert scale, 1 represents strongly agree, 2 represents moderately disagree, 3 represents slightly disagree, 4 represents slightly agree, 5 represents moderately agree, and 6 represents strongly disagree, 29 self-report statements make up this questionnaire. Nothing is trickier or there are no "right" or "wrong" responses. Most of the time,

the first response that occurs to a person is the best one. One's happiness score is the sum of the numbers he has. It's a terrific method to get a quick idea of how happy someone is right now. The sample of students (n = 727) had an internal reliability of .92 according to Cronbach's alpha. When 50 of the 727 students were randomly chosen six weeks later to verify test-retest reliability, the reliability coefficient that was obtained was .73. 12 negative and 17 positive items make up the scale and 1, 5, 6, 10, 13, 14, 19, 23, 24, 27, 28 and 29 no items were scored in reversed. The total number of answers for all 29 items is divided by 29. The person is not happy if the range is 1-2; 2-3 people is somewhat happy; 3-4 not particularly happy, 4 means moderately happy; 4-5 rather happy or pretty happy; 5-6 very happy; 6 means too happy.

#### *Bangla version of General Health Questionnaire-28*

The General Health Questionnaire-28 was originally developed by Goldberg and Williams (1988)<sup>17</sup>. The Bangla version of the General Health Questionnaire-28 (GHQ-28), translated and adapted by Banoo (2001)<sup>18</sup> is a widely used self-report screening tool designed to assess

general mental health across four domains: somatic symptoms, anxiety and insomnia, social dysfunction, and depression. The 28-item questionnaire uses a 4-point Likert scale to evaluate recent changes in mental well-being. The Bangla GHQ-28 has been culturally validated for use in the Bangladeshi context and demonstrates strong psychometric properties, including high internal consistency (Cronbach's alpha ranging from .85 to .90) and good construct and concurrent validity. Its reliability and sensitivity make it a valuable instrument for assessing psychological distress among Bangladeshi populations, particularly in academic and clinical settings. It assesses the psychological disturbances in terms of both a full-scale score and scores on four sub scales, reflecting somatic symptoms, anxiety and insomnia, social dysfunction and severe depression. The highest possible score of GHQ-28 is 84 whereas score below 39 is considered as not having significant level of psychiatric disturbance. And score 39 and above is considered as having significant level of psychiatric disturbance. The highest score of each sub-scale is 21. Score 0 to 6 considered as having low stress, 7 to 13 as moderate stress and 14 to 21 as severe stress. Each item consists of a question asking whether the respondent has recently experienced a particular symptom or item of behavior on a scale ranging from less than usual to much more than usual on a scale ranging from 0 to 3.

*Design:* A cross sectional survey research design was followed for conducting the present study. *Procedure:*

First of all, the demographic data sheet and questionnaire were to be completed by the students who consented to participate. They were made aware that the data collected from them would be kept confidential and utilized only for research purposes. They read the guidelines on how to answer the statements found in the questionnaire booklet, and they were urged to ask questions and repeat the statement if they had any trouble understanding it. It was determined that the questionnaires were clear and readable. Subsequently, 300 students who were easily picked were given the questionnaires. The participants were asked for their informed consent before any questionnaires were physically given to each of them. Before being given questionnaires, respondents were informed as follows: All information would be kept confidential and used only for research purposes. It is expected of participants to complete the questionnaire with diligence and seriousness. They were requested to submit only the necessary data and complete each section of the questionnaire separately. After carefully reading each question on the questionnaire, select the option that, in their opinion, is the most appropriate. The questionnaire took roughly ten to fifteen minutes to complete. Participant were thanked after completion of the questionnaire.

## Results & Discussion

By using IBM SPSS Statistics 27.0 to perform descriptive analyses, t-tests, and correlation analysis.

Table 2. Descriptive statistics of study variables

Variables	M	SD	Skewness	Kurtosis
1. Age	22.43	1.67	.113	-.724
2. Happiness	113.76	20.81	-.340	.403
3. Somatic symptoms	7.00	4.43	.595	-.016
4. Anxiety and insomnia	7.42	5.27	.533	-.320
5. Social dysfunction	9.01	3.85	.502	-.046
6. Depression	4.87	5.34	1.143	.355
7. Mental health	28.30	15.76	.722	.261

The descriptive statistics table shows that participants had an average age of 22.43 years. The mean for happiness was comparatively high (M=113.76), with a minor negative skewness, suggesting that the majority of scores were on the higher end. Somatic symptoms, anxiety, depression, and social dysfunction were among the mental health variables that exhibited moderate to high variability

and positive skewness, indicating a tendency toward reduced symptom reporting with a small number of people exhibiting higher distress. The most unequal distribution was seen in depression, which had the highest skewness (1.143). The distributions, with minor variations in skewness and kurtosis, were generally quite typical.

Table 3. Correlations among the study variables

Variable	1	2	3	4	5	6	7
1. Age	1						
2. Happiness	.014	1					
3. Somatic symptoms	-.022	-.483**	1				
4. Anxiety and Insomnia	.004	-.504**	.677**	1			
5. Social dysfunction	.019	-.542**	.519**	.522**	1		
6. Depression	.021	-.616**	.589**	.609**	.579**	1	
7. Mental health	.007	-.646**	.836**	.859**	.764**	.853**	1

\*\*p < .01

The correlation analysis was conducted to examine the relationships among age, overall happiness score, somatic symptoms, anxiety, social dysfunction, depression, and overall mental health as measured by the General Health Questionnaire (GHQ). The correlation matrix reveals a strong and significant negative relationship between mental health problems and happiness ( $r = -.646$ ,  $p < .01$ ), indicating that individuals experiencing higher levels of psychological distress tend to report lower levels of happiness. This association is consistent across all subdomains of mental health. Specifically, depressive symptoms ( $r = -.616$ ), social dysfunction ( $r = -.542$ ), anxiety and insomnia ( $r = -.504$ ), and somatic symptoms ( $r = -.483$ ) all show significant negative correlations with happiness, suggesting that as symptoms in any of these areas increase, happiness decreases. The correlation table 3 reveals a strong interconnection among the different mental health variables—somatic symptoms, anxiety and insomnia, social dysfunction, and depression. These sub-scales of the General Health Questionnaire (GHQ-28) are all significantly and positively correlated with each other, indicating that individuals experiencing distress in one area of mental health are likely to experience difficulties in others as well. For instance, anxiety and insomnia show a

very strong correlation with somatic symptoms ( $r = .677$ ) and depression ( $r = .609$ ), suggesting that emotional disturbances like anxiety often co-occur with physical complaints and low mood. Similarly, depression is highly related to somatic symptoms ( $r = .589$ ), social dysfunction ( $r = .579$ ), and especially to the overall mental health score ( $r = .853$ ), showing that depressive symptoms are a central aspect of psychological distress. Social dysfunction is also notably linked to anxiety ( $r = .522$ ) and depression, highlighting how emotional problems can affect daily functioning and interpersonal roles. The strongest relationship among all sub-scales is between overall mental health and anxiety and insomnia ( $r = .859$ ), followed closely by its correlation with depression ( $r = .853$ ) and somatic symptoms ( $r = .836$ ).

Interestingly, age does not show any significant relationship with happiness or mental health indicators, implying that these associations are consistent regardless of age. The table 3 shows a strong negative relationship between happiness and all mental health variables, especially depression and overall distress. Mental health symptoms are also highly interrelated, indicating they often co-occur.

Table 4. Happiness differences between male and female students of Chittagong University

Gender	n	M	SD	SE	t	df	p
Female	150	111.69	19.25	1.57	-1.73	298	.085
Male	150	115.84	22.13	1.81			

An independent samples t-test was conducted to compare happiness scores between male and female participants. The results showed that males ( $M = 115.84$ ,  $SD = 22.13$ ) had slightly higher happiness scores than females ( $M = 111.69$ ,  $SD = 19.25$ ). The t-

test yielded a value of  $t(298) = -1.73$  with a p-value of .085. Although the difference in mean scores appears noticeable, the p-value is greater than the conventional significance level of .05, indicating that this difference is not statistically significant.



Table 5. Mental health differences between male and female students of Chittagong University

Gender	n	M	SD	SE	t	df	p
Female	150	29.77	15.43	1.26	1.63	298	.105
Male	150	26.80	16.00	1.31			

An independent samples t-test was conducted to compare mental health scores between male and female participants. The results indicated that females ( $M = 29.77$ ,  $SD=15.43$ ) had slightly higher scores than males ( $M=26.80$ ,  $SD=16.00$ ). The test produced a  $t(298) = 1.63$  with a p-value of .105. Since the p-value is greater than .05, this difference is not statistically significant.

In the current academic climate especially within the highly competitive public university system of Bangladeshi students' mental health is often overlooked in favor of academic achievement. However, mental health is a crucial element that significantly influences students' overall development, learning ability, and life satisfaction. This research focused on exploring the complex link between happiness and mental health among students at the University of Chittagong, aiming to examine how positive emotional states interact with psychological distress in students navigating academic, social, and personal demands. The results revealed a strong negative relationship between happiness and mental health symptoms, aligning with findings from a wide range of international studies and highlighting the consistent nature of this association across cultures. This discussion aims to place the findings within the context of global research while considering the unique social and cultural dynamics of Bangladeshi university students, offering valuable guidance for educators, counselors, and policymakers working to support student well-being.

The present findings illuminate a strikingly robust, negative association between happiness and mental health distress among Bangladeshi students, echoing a global pattern documented across vastly different cultural settings. The large inverse correlation we observed between the Overall Happiness Score and the General Health Questionnaire (GHQ-28) total ( $r \approx -.65$ ) is virtually identical to Kamkary and Shokrzadeh's<sup>6</sup> work with Iranian youth and closely parallels the  $-.60$  range reported by Aghili<sup>11</sup> and Ross and Broh<sup>19</sup>. Such convergence suggests that, despite differences in language, religion and social expectations, higher positive affect reliably co-occurs with lower psychiatric symptom load.

Fredrickson's<sup>20</sup> broaden-and-build theory provides a persuasive interpretive lens: frequent positive emotion broadens students' thought-action repertoires encouraging help-seeking, social engagement and active coping and over time builds psychological resources that shield them from depression, anxiety and somatic tension. In collectivist societies like Bangladesh, where familial harmony and social approval are prized, happiness may additionally reflect the fulfillment of relational obligations, strengthening its protective link to mental health.<sup>21</sup>

Disaggregating the GHQ domains revealed that depressive symptoms were the most potent single correlate of diminished happiness, a pattern consonant with Seligman's<sup>21</sup> experimental evidence that positive-activity interventions simultaneously raise happiness and lower depression. Our data also showed meaningful negative ties between happiness and anxiety-insomnia, somatic complaints and social dysfunction. These findings mirror Phillips's<sup>22</sup> early observation that the unhappy—complain of their bodies and minds alike, and are reinforced by Acevedo-Mesa *et al.*'s<sup>23</sup> longitudinal work indicating that momentary positive affect predicts lower functional somatic symptoms. Otsuka *et al.*'s<sup>24</sup> nationwide study of Japanese adolescents further supports the pathway from low happiness to sleep disturbance, while Kendall's<sup>25</sup> and Ekman *et al.*'s<sup>26</sup> therapeutic studies highlight the reciprocal route from improved happiness to anxiety reduction. Taken together, the pattern implies that positive affect may down-regulate physiological arousal and foster restorative sleep, thereby weakening a network of mutually reinforcing distress symptoms.

Contrary to some regional studies, gender did not meaningfully differentiate happiness or mental-health scores in the current sample. Our null result aligns with Cheah and Tang's<sup>27</sup> Malaysian findings and Chilean data, yet it diverges from Abdel- Khalek's<sup>28</sup> report of higher male well-being and Davari and Bagheri's<sup>29</sup> evidence of poorer female mental health among teachers.

One plausible explanation is contextual buffering: Bangladeshi families often view female higher education as a source of collective prestige, which may provide women

with social scaffolding that offsets wider patriarchal stressors. Another possibility is measurement: public-university men may under-endorse distress due to masculine display rules, narrowing apparent gender gaps. Age likewise showed no substantive linkage to either construct, an unsurprising outcome given the restricted 20 to 25 - year range, but future work including mature students could clarify developmental trends.

The high inter-correlations among GHQ subscales ( $.52 \leq r \leq .86$ ) support a network model of distress in which insomnia, somatization, depressed mood and social withdrawal amplify one another<sup>30</sup>. This perspective dovetails with Maslow's hierarchy: once physiological and safety needs are met in the university environment, belongingness and esteem become critical; failures in these domains may simultaneously erode happiness and activate multiple distress nodes. Conversely, interventions that elevate positive emotion—such as gratitude journaling, strengths-spotting and peer-support programs—may disrupt the entire symptom web. Evidence from Sadanpour et al.<sup>13</sup> shows that emotional-intelligence training boosts both happiness and mental health, while Mostafai's<sup>14</sup> comparison of athletes and non-athletes underscores the value of physical-activity programs. Implementing sleep-health campaigns and structured social-bonding activities could therefore yield cascading benefits for Bangladeshi students' well-being and, by extension, their learning capacity.

In our observation, this strong negative relationship between happiness and mental health may be due to the continuous academic pressure and uncertainty that public university students in Bangladesh face. Most students worry about future employment and family expectations, which can easily lower their happiness level and raise anxiety or depressive feelings. Most of the students of University of Chittagong live far from their family since many students come from different part of the country and as a result they suffer from adjustment issues, accommodations problem and miss their family bonding's which leads to mental health problem. On the other hand, those who maintain good social bonding, religious practice, or family support seem to stay happier and emotionally stronger. So, higher happiness might protect them from stress-related symptoms by giving them a sense of meaning and belonging.

Despite offering valuable insights into the relationship between happiness and mental health among university students, this study is not without limitations, which should

be considered when interpreting the results and planning future research:

1. The cross-sectional nature of the study limits its ability to establish causality. While significant associations were found between happiness and mental health variables, it is unclear whether how happiness leads to poor mental health or vice versa. Longitudinal studies are needed to understand the directionality and causative pathways of these relationships over time.
2. The sample was limited to students from a single public university (University of Chittagong), which may restrict the generalization of the findings to other student populations across Bangladesh. Students from private universities, other regions, or different socioeconomic backgrounds may experience different levels of happiness and mental health concerns influenced by various contextual and institutional factors.
3. The study lacked a qualitative component. While quantitative data provided a broad overview, in-depth interviews or focus group discussions could have enriched the findings by capturing students' personal experiences, perceptions of happiness, cultural influences, and the unique stressors they face in academic life.

Acknowledging these limitations allows for a better interpretation of the findings and highlights the need for more comprehensive, methodologically diverse research in the future.

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