

The Relationship between Self-Compassion, Self-Esteem and Suicidal Ideation among a Cohort of University Students

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ABSTRACT

Context: Self-compassion and self-esteem are positive personality traits that save us during life imperfection, so both can play a vital role in self-regulating behaviors to decrease suicidal ideation.

Aim: Explore the relationship between self-compassion, self-esteem, and suicidal ideation among a cohort of university students.

Methods: Cross-sectional research design was used. This study was conducted at Al Delta University for Science and Technology- College of Engineering and Oral and Dental Medicine, Dhakahlia Governorate, Egypt. A convenient sample of 249 undergraduate university students was recruited. Self-Administered Questionnaire, Rosenberg's Self-Esteem Scale (RSES), The Self-Compassion Scale-Short Form (SCS-SF), and The Suicidal Behavior Questionnaire-Revised (SBQ-R).

Results: 14% of the studied sample reported that they frequently have suicidal thoughts, while 28.12% reported that they sometimes have a suicidal attempt. Suicidal behavior was inversely and highly significantly correlated with self-esteem (P-value < 0.03), and also self-compassion was inversely and significantly related to suicidal behavior (P-value < 0.02). In contrast, self-compassion and self-esteem were positively and highly significantly correlated (P-value < 0.001). Additionally, the higher mean score for having self-esteem and self-compassion was among students who had a sleep regularly (18.38±9.94 and 13.8±3.10 respectively), and the students who are doing physical activities had the highest mean score (26.88±7.06 and 21.24±11.1 respectively) with statistically significant difference (P < 0.05).

Conclusion: Less than half of the students had sometimes and frequently at other times thinking of suicide. Self-esteem and self-compassion were significantly correlated, and suicidal behavior was significantly affected by students' self-esteem and self-compassion. The supportive resources through academic guidance and psychological counseling units that are staffed and supervised by psychologists, activating student extracurricular activities and sports clubs, will help enhance self-esteem and self-compassion and consequently minimize suicidal behaviors.

Keywords: Self-compassion, self-esteem, suicidal ideation, university students

1. Introduction

Suicide is a significant public health concern as the second-leading cause of death for university students (Eiser, 2011; ACHA, 2014). However, suicidal behavior as ideation and attempts is more prevalent and considered a strong predictor of eventual death via suicide (Gvion & Apter, 2012). Young adults, including those attending university, may be at particular risk for suicidal behavior (AAS, 2014), possibly due to the high prevalence of psychological impairment in university and the practice of several unhealthy behaviors as inadequate sleep, unbalanced diet, and few physical activities (ACHA, 2014; Taub & Thompson, 2013).

Psychological illness as depressive symptoms, low self-esteem, minimum self-compassion, and poor health and wellbeing (e.g., drugs use, abnormal sexual behaviors, poor physical health) (ACHA, 2014) are considered as risk factors for suicide and suicidal behavior (Gvion & Apter, 2012; Taub & Thompson, 2013). Several studies represented different strategies to minimize suicidal

behaviors among university students via helping them to overcome stressful situations and increasing self-compassion.

Self-compassion is defined as a positive and caring behavior of the person toward himself/herself when facing failures, individual defects, or negative events that can occur in their life with or without their responsibility (Neff, 2018). This mindful acceptance of one's suffering, mutual experience suffering, and common humanity sensation is believed to be achieved by time and situations (Germer & Neff, 2019). Evidence suggests that situations may affect the self-compassion level (Breines & Chen, 2013) and that self-compassion exercises make it more applicable (Sirois et al., 2015; Dunne et al., 2016).

According to Braehler and Neff (2020), self-compassion is divided into three concepts: Self-kindness, common humanity, and mindfulness. Self-kindness describes the understanding and acceptance of one's feelings and failures, avoiding roughly overcritical (self-judgment), while common humanity means that one experiences failure or stressful events as a common human experience, rather than as an isolated event. Lastly, mindfulness includes negative feelings and experiences in a

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balanced manner, which entails that one should be open and non-judgmental to one's feelings (Neff & Pommier, 2013).

Therefore, the concept of self-compassion refers to ways of treating oneself in a kind and protecting manner. Self-compassion is also essential for physical, mental, emotional, and spiritual health via engagement in adaptive and proactive healthy behaviors. These behaviors, such as adequate sleep, healthy diet, exercise, and self-care, increase personal awareness and choices, leading to a more successful existence (Rabon et al., 2018). Thus, self-compassion may directly decrease suicide risk by increasing understanding themselves and their experiences while decreasing feeling lonely in suffering (Zeller et al., 2015) or engagement in health risk behaviors as the administration of alcohol and illicit drug (Dunne et al., 2018).

The self-compassion adaptive effects can be explained with two theories: The "broaden-and-build" theory of positive emotions and the social mentality theory. Broaden-and-build theory supposed that self-compassion should reinforce continual positive emotions to improve one's flexibility and awareness via being more open to personal experiences, especially negative emotions such as guilt, fear, helplessness, developing a balanced perspective on weaknesses, and positive emotions. This balance increases one's self-esteem and lessens suicidal ideation (Butz & Stahlberg, 2020). According to social mentality theory, when one is self-compassionate, both care-seeking and caregiving mentalities are activated concerning others and within the self (Hermanto & Zuroff 2016).

Unlike self-esteem, which is an overall feeling of self-value after having competence in the valued life areas, self-compassion is an orientation for one's care whatever life circumstances, avoiding self-evaluations, judgments, and comparisons to determine our value (Semenchuk et al., 2018). Whereas self-esteem causes feelings of superiority and self-confidence, self-compassion provides safety and protection. Hence, self-compassion saves us during life imperfection, so both can play a vital role in self-regulating behaviors to decrease suicidal ideation (De Souza & Hutz 2016). Previous research reported that this protection of self-compassion against suicide might be through lessening trauma-related symptoms (e.g., panic, posttraumatic stress) or by lowering negative internal experiences, such as self-blame and shame (Rabon et al., 2018).

This relationship between self-compassion and self-esteem is not surprising, given they are both measures of positive self-attitude. It has been suggested that low self-compassion is associated with low self-esteem due to heightened self-criticism (Neff, 2018). There is evidence that the university period involves the age groups of students distinguished by that they are always self-critical and more objectionable to what is going on around them, which may negatively affect their self-esteem and sympathy with themselves and may consider suicide (Neff & Pommier, 2013).

2. Significance of the Study

Suicide is one of the leading causes of death worldwide and an important public health problem (Chikwande, 2017). According to statistics compiled by the UN's World Health Organization, approximately one million people worldwide commit suicide every year, almost one death every 40 seconds. Suicide rates are reported to be rising steadily in developing countries, primarily amongst those between the ages of 15 and 44. WHO reports that for every death, there are around 20 other people who will have attempted suicide (WHO, 2014).

Its projections indicate that the number of suicides may rise to 1.5 million annually by the year 2020; Chikwande (2017) stated that in the World Health Organization report on suicide worldwide; Egypt topped the list of Arab countries in terms of the number of suicides for 2016, with 3,799 suicides. Added to this are numerous cases across the country, many of which are attributed to financial hardships, depression, low self-esteem, failure to score high grades in an exam, secure a job, or marry a beloved are also listed among the reasons for many suicides (WHO, 2016).

There is a paucity of epidemiologically reliable data on suicidal ideation and attempts among university students. It was necessary to conduct the current study that aims to assess the prevalence of suicidal behaviors among the sample of university students and explore the association between self-compassion, self-esteem, and suicidal behaviors.

3. Aim of the study

This study was conducted to explore the relationship between self-compassion, self-esteem, and suicidal ideation among a sample of university students.

This aim will be achieved through the current objectives:

- Assess to what extent the university students have self-compassion and self-esteem.
- Assess the prevalence of suicidal behaviors among the sample of university students
- Identify the association between self-compassion, self-esteem, and suicidal behaviors.
- Determine the correlation between potential healthy behaviors such as students' sleep regularly and physical exercise performance, self-esteem, and self-compassion.

3.1. The study theoretical frameworks

Self-compassion

Strauss et al. (2016) proposed an operational definition of compassion and self-compassion, considering a wide range of definitions from Buddhist and Western psychological perspectives. They defined compassion as "a cognitive, affective, and behavioral process consisting of the following five elements that refer to both self and other-compassion: 1) Recognizing suffering; 2) Understanding the universality of suffering in human experience; 3) Feeling empathy for the person suffering and connecting with the distress (emotional resonance); 4) Tolerating uncomfortable feelings aroused in response to the suffering

person (e.g., distress, anger, fear) so remaining open to and accepting of the person suffering, and 5) Motivation to act/acting to alleviate suffering."

Suicidal ideation

Suicidal ideation (or suicidal thoughts) is thinking about, considering, or planning suicide (Klonsky et al., 2016). It is not a diagnosis but thoughts that are occurring in response to adverse events without the presence of a mental disorder (Barry, 2019).

3.1. Research Questions

- Do undergraduate students have suicidal thoughts and attempts?
- Are these suicidal thoughts and attempts correlated with self-esteem and self-compassion?
- Is self-esteem associated with self-compassion?
- Does sleep regularly and the performance of physical exercise contribute to students' self-esteem and self-compassion?

4. Subjects & Methods

4.1. Research design

A cross-sectional research design was used to achieve the present study aim. It is a type of research design that collected data from many different individuals at a single point in time and observed variables without influencing the studied sample (Creswell & Creswell, 2018).

4.2. Research setting

This study was conducted at Al Delta University for Science and Technology, College of Engineering, and College of Oral and Dental Medicine from 1 April 2019 to the end of May 2019. This University is affiliated to the Ministry Of Higher Education. It is a private university settled in Dakahlia Governorate. It was established in 2007, and in 2019 it had four colleges.

4.3. Subjects

A convenient sample of 249 male and female students were recruited from the previously mentioned setting via an electronic link (<https://forms.gle/WnygUpUHrA3s5K7y6>) sent through What's App groups. Participants completed an online survey.

4.4. Tools of the study

Data was collected using the following tools:

4.4.1. Self-Administered Questionnaire

The researcher designed it to assess the socio-demographic characteristics concerned with participants' age, gender, sleeping, physical activity, and student's sources of help and support in the incidence of personal, social, psychological, or even academic problems.

4.4.2. The Suicidal Behavior Questionnaire-Revised (SBQ-R)

A psychological self-report questionnaire designed by Osman et al. (2001) and adopted to achieve this study aims

to assess suicidal thoughts and identify risk factors for suicide in adolescents. The tool included two main subscales: Suicide ideation and suicide attempt. Each subscale includes eight statements denoting the presence of suicide ideation or the trying of a suicide attempt.

The suicide ideation included statements such as "I have no will continue my life, I have come up with certain ways to end my life, and I have felt like there is no reason for me to live." The suicide attempt included such statements as "I have harmed myself to end my life, I have tried certain ways to end my life, and I have tried to end my life." The SBQ-R is reliable and valid ($\alpha=.81$) in university student samples and with adequate internal consistency ($\alpha=0.88$).

Scoring system

16-items are scored using a 5-point Likert-scale, with five response choices per item from 1=never to 5=very often. The students' responses were displayed as descriptive statistics with frequencies and percentages

4.4.3. The Self-Compassion Scale – Short Form (SCS-SF)

A short version of the Self-Compassion Scale was adopted from Neff's (2003a). It consisted of a 12-item scale to gain insight into how people respond to themselves during a struggle or challenging time. The SCS-SF has strong reliability in university student samples ($\alpha=0.88$) with good internal consistency ($\alpha=0.92$), similar to previous research ($\alpha = 0.87$) (Raes et al., 2011).

scoring system

The student rate every part of items on a five (5) point scale of 1(never), 2(rarely), 3(sometimes), 4(often), and 5(always), this for positive items as self-kindness, common humanity and mindfulness. For the negative items as self-judgment, isolation, and over-identified the score is reversed. It was 5(never), 4(rarely), 3(sometimes), 2(often), and 1(always). The total score for 12 items is 60. The higher score is 60, and the lower is 12. The higher the score, the higher self-compassion the teacher has, and the lower score, the teacher's lower self-compassion.

4.4.4. Rosenberg's Self-Esteem Scale (RSES)

Rosenberg, (1965) designed-Rosenberg's Self-Esteem Scale (RSES). It was used to measure students' self-esteem. It has ten statements evaluated against a 4-point Likert scale from "strongly agree" to "strongly disagree." Additionally, based on past researches, the strong internal consistency: test-retest correlations are typically in the range of 0.82 to 0.88, and Cronbach's alpha for various samples is in the range of 0.77 to 0.88. The scale items showed high internal consistency with an alpha level of 0.90 (Magnus et al., 2010). Rosenberg's Self-Esteem Scale (RSES) version used in this study was published previously by Hutz and Zanon (2011) and Hutz et al. in 2014.

Scoring system

They are scored from "4" to "1," respectively, and the negative items are scored inversely so that a higher score indicated high self-esteem. For items 1, 2, 4, 6, 7: Strongly

agree=4, agree=3, disagree=2, and strongly disagree=1. For items 3, 5, 8, 9, 10 (which are reversed in valence and noted with the asterisk* below): Strongly agree=1, agree=2, disagree=3, and strongly disagree=4.

4.5. Procedures

This study's operational design included the preparatory phase, content, and face validity and reliability of the tools, pilot study, and fieldwork.

The preparatory phase included reviewing the currently available literature relevant to the problem and theoretical knowledge of the various aspects of the problem using books, articles, periodicals, and magazines to get a clear picture of all aspects related to the problem of the research.

Content validity was done to assure that the utilized tools measure what it was supposed to measure. It was vigorously reviewed through submitted to a jury consisting of three professors in Psychiatric and Community Health Nursing to be tested for its content and face validity.

Regarding reliability, all the tools used are standardized. The researchers adopted it as it is. Amicably, approval was taken from the students' What's App group admins College of Engineering and College of Oral and Dental Medicine, then the data collection was conducted online through sending the study tools via a link.

Participants were briefed about the purpose of the current study, and they were assured of the confidentiality of the information that they are giving to provide as it would only be used for research purpose, and anonymity was assured as the filled questionnaire sheets were given a code number (not by names). The students who present in What's App groups were informed about they had the right to participate or refuse to fill without giving any reason.

A pilot study was conducted on 10% of the studied subjects. All students involved in the pilot study were excluded from the study sample after that. The purpose of the pilot study was to ascertain the clarity, applicability, relevance, and content validity of the tools, testing the feasibility of the study process. After conducting the pilot study, it was found that the tools were clear and applicable in the English form. No problem interferes with the process of data collection was detected. The tools were made ready for use following this pilot study.

4.6. Data analysis

Computerized data entry and statistical analyses were fulfilled using the Statistical Package for Social Sciences Software (SPSS) version 21. Data were presented using descriptive statistics in frequencies, percentages, means, and standard deviations for quantitative variables. Correlation between variables was evaluated using Pearson's correlation coefficient. Significance was adopted at $P \leq 0.05$ to interpret the results of tests of significance.

5. Results

Table 1 reveals that students' age ranged from 19-23 years. The mean age was 21.79 ± 5.3 . More than half of the studied samples (62.65%) were males. About three-quarters

of the students (73.09%) do not sleep regularly, and most do not do any physical activities (82.73%). As well, 86.74% of the students were not get supported by the college.

Table 2 shows that regarding suicide ideation, 40.56% of the students reported that they frequently have no will to continue their life, 46.6% sometimes felt like there is no reason for them to live. Also, 41.76 % reported that; they sometimes had crossed their minds to end their lives, but they were afraid to act upon it, and 40.96% sometimes had thought of doing something so that they would no longer live the next day. About one-fifth sometimes feels that there is no solution to their problem but end their lives (19.27 %). Besides, 24.07% had always once thought to end their lives.

Regarding suicide attempts, about half (48.19%) of the student reported that they sometimes "have tried to end their life," "they tried to end their life, but it did not work (47.38%)," "they worried that they would try to end their life again," and "they have attempted to end their life, but they did not want to die" (45.38%). Moreover, about one-third of the students (28.91%) reported that they frequently "harm themselves to end their lives. They have often been unable to prevent themselves from self-injuring when they are under stress and were reported by one-fifth of the students (19.67%).

Figure 1 shows the total scores of suicidal ideations, which reflected that about one-fifth of the studied sample (21.26%) sometimes have suicidal thoughts, and 14% have recorded that they frequently have suicidal thoughts. On the other hand, more than half (53.48%) have never experienced suicidal thoughts.

Figure 2 illustrates that more than a quarter of the studied sample (28.12%) reported that they sometimes have a suicide attempt, and 17% of them have recorded that they always have suicide attempts. On the other hand, more than one-third (39.18%) reported that they never have any suicide attempts.

Table 3 shows that more than half of the students (56.22%) reported that they always feel alone when they fail in something important to them, and 48.19% of them reported they rarely try to look at the situation neutrally when something painful happens to them. Also, about one-fifth, 20.48%, reported that they always doubt and confirm everything is a failure, and they feel others may be happier than us when they feel despair and sadness (20.88%). Meanwhile, 63.45% of the students reported that they always try to keep their feelings balanced when something goes wrong. Also, more than half (50.20%) reported that they always try to understand and be patient about those things they love about their character, and about half (49.79%) reported they give themselves the care and attention they need when a difficult time has passed.

Table 4 shows that more than half of the students, 51.40% agreed that they were able to do things and most other people, and 46.98% of the students agreed that they were satisfied with themselves overall. Also, 45.78% strongly agreed that they take a positive attitude toward themselves, while 26.10% disagree with their feeling that they have several good qualities.

Regarding the negative items, more than half of the students strongly disagree regarding the items "I wish I could have more respect for myself" (53.41%) and disagree about the item "All in all, I am inclined to feel that I am failed "(50.20%). Also, about one-third of them strongly disagree that they have not much to be proud of it. In the same respect, they reported strongly agree by 9.23% that they certainly feel useless at times, and sometimes they think no good at all 4.41%.

Table 5 reveals no statistically significant relationship between a student's age and a total of self-esteem and self-compassion (P>0.05). Nonetheless, female students having significantly more self-compassion and self-esteem than male students (P ≤0.05).

Additionally, the higher mean score for having self-esteem and self-compassion was among students who

regularly slept (18.38±9.94 and13.8±3.10, respectively). A student doing physical activities had the highest mean score (26.88±7.06, 21.24±11.1 respectively) for having self-esteem and self-compassion with a statistically significant difference (P≤0.05).

Table 6 indicates no statistically significant correlation detected between suicidal behavior and the presence of a source of support and help when the students' suffering from psychological, social, or academic problems (P > 0.05).

Table 7 reveals that suicidal behavior was inversely and highly statistically significantly correlated with self-esteem (p<0.01), and also self-compassion was inversely and significantly related to suicidal behavior (p<0.05). Simultaneously, self-compassion and self-esteem were positively and highly significantly correlated (p<0.001).

Table (1): Frequency and percentages distribution of studied sample socio-demographic characteristics (n. =249).

| Socio-demographic characteristics | No. | % |
|---|-----------|-------|
| Age (years) | | |
| <20 | 108 | 43.37 |
| 20+ | 141 | 56.26 |
| Range | 19.0-23.0 | |
| Mean ± SD | 21.79±5.3 | |
| Gender | | |
| Female | 93 | 37.34 |
| Male | 156 | 62.65 |
| Sleeping regularly | | |
| Yes | 67 | 26.90 |
| No | 182 | 73.09 |
| Doing and physical activities | | |
| Yes | 43 | 17.26 |
| No | 206 | 82.73 |
| Presence of source of support during suffering | | |
| Yes | 33 | 13.25 |
| No | 216 | 86.74 |

Table (2): Frequency and percentage distribution of the studied sample suicide behavior (n. =249)

| Suicide behavior | Never | | Sometimes | | Always | | Frequent | | Very often | |
|--|-------|-------|-----------|-------|--------|-------|----------|-------|------------|-------|
| | no | % | no | % | no | % | No | % | no | % |
| Suicide ideation | | | | | | | | | | |
| I have no will continue my life | 99 | 39.75 | 20 | 8.03 | 11 | 4.41 | 101 | 40.56 | 18 | 7.22 |
| I have come up with certain ways to end my life | 142 | 57.02 | 47 | 18.9 | 24 | 9.7 | 36 | 14.4 | 0.0 | 0.0 |
| I have felt like there is no reason for me to live | 105 | 42.17 | 116 | 46.6 | 19 | 7.7 | 9 | 3.60 | 0.0 | 0.0 |
| It has crossed my mind to end my life when I am faced with a big problem | 133 | 53.42 | 62 | 24.89 | 21 | 8.43 | 22 | 8.83 | 11 | 4.41 |
| I have once thought to end my life | 94 | 37.75 | 71 | 28.51 | 60 | 24.07 | 20 | 8.09 | 4 | 1.60 |
| I feel that there is no solution to my problem but to end my life | 154 | 61.84 | 48 | 19.27 | 17 | 6.83 | 30 | 12.04 | 0.0 | 0.0 |
| I once thought of doing something so that I would no longer live the next day | 127 | 51 | 102 | 40.96 | 9 | 3.61 | 11 | 4.42 | 0.0 | 0.0 |
| It has crossed my mind to end my life, but I am afraid to act upon it | 119 | 47.79 | 104 | 41.76 | 19 | 7.63 | 7 | 2.81 | 0.0 | 0.0 |
| Suicide attempt | | | | | | | | | | |
| I have harmed myself for the purpose of ending my life | 75 | 30.12 | 33 | 13.25 | 43 | 17.26 | 72 | 28.91 | 26 | 10.44 |
| I have tried certain ways to end my life | 107 | 42.97 | 83 | 33.33 | 31 | 12.44 | 28 | 11.24 | 0.00 | 0.0 |
| I have tried to end my life | 103 | 41.36 | 120 | 48.19 | 12 | 4.81 | 14 | 5.62 | 0.00 | 0.0 |
| I have been unable to prevent myself from self-injuring when I am under stress | 100 | 40.16 | 96 | 38.55 | 4 | 1.60 | 0.0 | 0.0 | 49 | 19.67 |
| I have tried to end my life, but it did not work | 125 | 50.20 | 118 | 47.38 | 6 | 2.40 | 0.0 | 0.0 | 0.0 | 0.0 |
| I feel as if this life has no meaning that I have tried to end it | 134 | 53.81 | 92 | 36.94 | 15 | 6.02 | 8 | 3.21 | 0.0 | 0.0 |
| I am worried that I would try to end my life again | 125 | 50.20 | 113 | 45.38 | 11 | 4.41 | 0.0 | 0.0 | 0.0 | 0.0 |
| I have attempted to end my life, but I did not want to die | 123 | 49.39 | 113 | 45.38 | 11 | 4.41 | 2 | 0.80 | 0.0 | 0.0 |

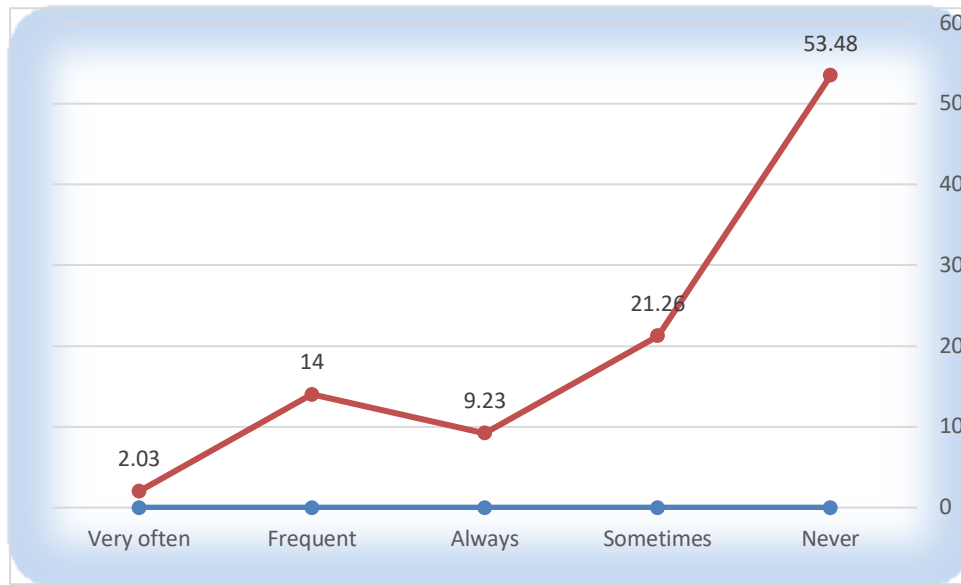


Figure (1): Percentage distribution of studied students regarding total suicide ideation (n=249).

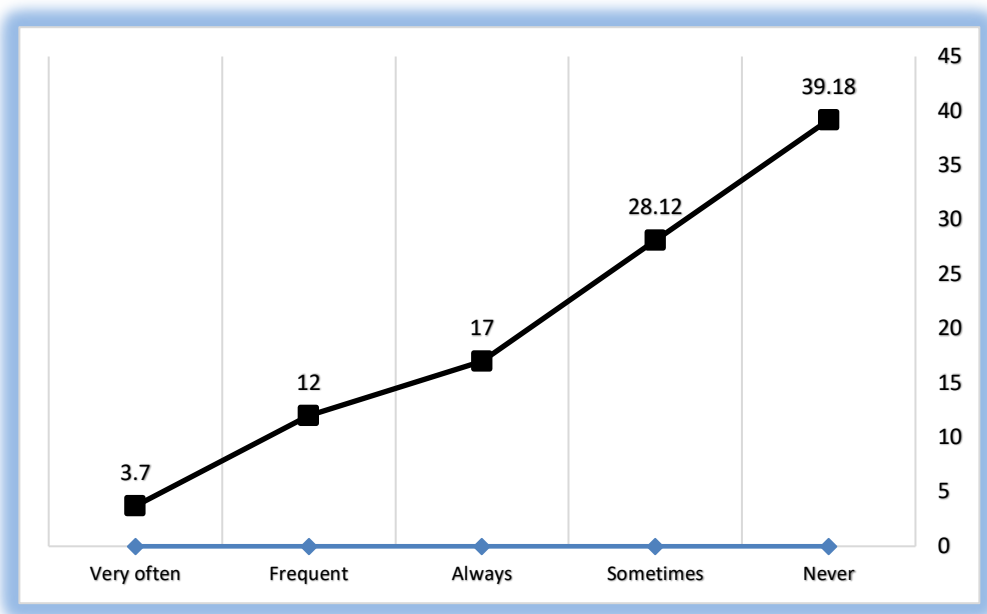


Figure (2): Percentage distribution of studied students regarding total suicide attempts (n=249).

Table (3): Frequency and percentage distribution of the studied sample self-compassion (n. =249).

| Self-compassion | Never | | Rarely | | Few times | | Sometimes | | Always | |
|--|-------|-------|--------|-------|-----------|-------|-----------|-------|--------|-------|
| | No | % | No | % | No | % | No | % | No | % |
| When I fail in something important to me, it controls or pursues me with a sense of incompetence | 75 | 30.12 | 71 | 28.51 | 8 | 3.21 | 18 | 7.22 | 77 | 30.92 |
| I try to understand and be patient about those things that I love about my character | 83 | 33.33 | 41 | 16.46 | 0.00 | 0.00 | 0.00 | 0.00 | 125 | 50.20 |
| When something painful happens to me, I try to look at the situation neutrally | 41 | 16.46 | 120 | 48.19 | 0.00 | 0.00 | 69 | 27.71 | 19 | 7.63 |
| When I feel despair and sadness, I feel that others may be happier than me. | 118 | 47.38 | 59 | 23.69 | 9 | 3.61 | 11 | 4.41 | 52 | 20.88 |
| I try to see my mistakes formed by human nature | 16 | 6.42 | 94 | 37.75 | 13 | 5.22 | 13 | 5.22 | 113 | 45.38 |
| When a difficult time has passed, I give myself the care and attention I need. | 12 | 4.81 | 11 | 4.41 | 85 | 34.55 | 17 | 6.82 | 124 | 49.79 |
| When something goes wrong, I try to keep my feelings balanced | 16 | 6.42 | 18 | 7.22 | 21 | 8.43 | 36 | 14.45 | 158 | 63.45 |
| When I fail in something important to me, I feel pain alone | 96 | 38.55 | 0.0 | 0.00 | 13 | 5.22 | 0.00 | 0.00 | 140 | 56.22 |
| When I am unhappy, I doubt and confirm everything is a failure | 84 | 33.73 | 98 | 39.35 | 4 | 1.60 | 12 | 4.81 | 51 | 20.48 |
| When I feel incompetent, I remind myself that these feelings are shared by most people | 106 | 42.57 | 88 | 35.34 | 0.00 | 0.00 | 0.00 | 0.00 | 55 | 22.08 |
| I criticize others; I am not satisfied with my incompetence and my mistakes | 112 | 44.97 | 11 | 4.41 | 16 | 6.42 | 13 | 5.22 | 97 | 38.95 |
| I am not a payload and impatient towards things that I do not like in my character. | 47 | 18.87 | 68 | 27.30 | 99 | 39.75 | 0.00 | 0.00 | 35 | 14.05 |

Table (4): Frequency and percentage distribution of the studied sample self-esteem (n. =249).

| Self-esteem | Strongly Disagree | | Disagree | | Agree | | Strongly Agree | |
|--|-------------------|-------|----------|-------|-------|-------|----------------|-------|
| | No | % | No | % | No | % | No | % |
| I feel that I am a person of worth, at least on an equal plane with others | 10 | 4.01 | 71 | 28.51 | 64 | 25.70 | 104 | 41.76 |
| I feel that I have a number of good qualities | 18 | 7.22 | 65 | 26.10 | 152 | 61.04 | 14 | 5.62 |
| All in all, I am inclined to feel that I am a failure* | 113 | 45.38 | 125 | 50.20 | 11 | 4.41 | 0.00 | 0.00 |
| I am able to do things as well as most other people | 6 | 2.43 | 36 | 14.45 | 128 | 51.40 | 79 | 31.72 |
| I feel I do not have much to be proud of* | 94 | 37.75 | 82 | 32.93 | 73 | 29.31 | 0.00 | 0.00 |
| I take a positive attitude toward myself | 10 | 4.01 | 60 | 24.09 | 65 | 26.10 | 114 | 45.78 |
| On the whole, I am satisfied with myself | 3 | 1.20 | 83 | 33.33 | 117 | 46.98 | 46 | 18.47 |
| I wish I could have more respect for myself* | 133 | 53.41 | 51 | 20.48 | 59 | 23.69 | 6 | 2.40 |
| I certainly feel useless at times* | 48 | 19.27 | 134 | 53.81 | 44 | 17.67 | 23 | 9.23 |
| At times I think I am no good at all* | 107 | 42.97 | 84 | 33.73 | 45 | 18.07 | 11 | 4.41 |

Table (5): Relations between socio-demographic characteristics of the studied sample and their total self-esteem and self-compassion (n. =249).

| Socio-demographic characteristics | Total self-esteem | | | Total self-compassion | | |
|-----------------------------------|-------------------|--------|---------|-----------------------|--------|---------|
| | Mean ± SD | t-test | p-value | Mean ± SD | t-test | p-value |
| Age (years) | | | | | | |
| <20 | 13.36±9.75 | 1.295 | 0.77 | 7.6±2.37 | 1.88 | 0.119 |
| 20+ | 14.30±10.32 | | | 10.02±3.95 | | |
| Gender | | | | | | |
| Male (n=156) | 12.28±9.6 | 2.211 | 0.032 | 10.6±9.4 | 1.07 | 0.050 |
| Female (n=93) | 21.30±11.7 | | | 22.02±9.8 | | |
| Sleeping regularly | | | | | | |
| Yes (n=67) | 18.38±9.94 | 0.23 | 0.82 | 13.8±3.10 | 0.86 | 0.39 |
| No (n=182) | 11.88±10.7 | | | 7.40±2.7 | | |
| Doing physical activities | | | | | | |
| Yes (n=43) | 26.88±7.06 | 2.211 | 0.139 | 21.24±11.1 | 2.381 | 0.095 |
| No (n=206) | 16.2±9.74 | | | 14.50±8.76 | | |

Table (6): Correlation between suicidal behavior and the presence of a source of support (n. =249)

| Suicidal behavior | Presence of source of college support | |
|-------------------|---------------------------------------|-------|
| | r | p |
| Ideation | 0.129 | 0.168 |
| Attempt | 0.602 | 0.058 |

Table (7): Correlation between scores of suicidal behavior, self-compassion, and self-esteem among studied students (n=249).

| | Self-esteem score | | Self-compassion score | |
|-------------------|-------------------|-------|-----------------------|------|
| | r | p | r | p |
| Suicidal Behavior | - 0.38 | 0.03 | - 0.24 | 0.02 |
| Self-Compassion | 0.66 | 0.000 | | |

6. Discussion

Students are exposed to many challenges related to psychological factors, and the inability to adapt sometimes could lead them to think about suicide during the university period. Self-compassion and self-esteem are very important factors that may help them pass this stage (Rabon *et al.*, 2019).

In the current study, the total scores of suicidal ideations reveal that about a quarter of the students reported they sometimes have suicidal thoughts and more than one-tenth reported they frequently have suicidal thoughts, and about one-third reported that they sometimes have suicide attempts. Thus, these results indicated a high risk for suicidal behavior among university students and confirming that suicidal behavior is a strong predictor of eventual death among university students by suicide. These results agree with Rabon *et al.* (2019), who reported that 8% of university students were serious in suicidal ideation and 1.3% make attempts annually, compared to 3.7% and 0.5%, respectively adults.

It is demonstrated by the present study sample's response to some items of the scale questions, for example, "when a difficult time has passed, I give myself the care and attention I need" about half of the sample had always responded to it, and "When something goes wrong, I try to keep my feelings balanced" which reported as always by more than three-fifths of the students. This reflects the present studied sample self-compassion and self-confidence with their own self, acknowledging their strengths and weaknesses. Generally, they have a natural degree of self-compassion.

These results were supported formerly by Breines and Chen (2013), who found that self-compassionate people take a supportive attitude towards themselves, understand that society shares their suffering, and make mistakes because of being human, giving more balanced reactions to stressful events and have less suicidal ideation.

In general, most of the sample had enough self-esteem, and this turned out to be more than half of them agreed that they able to do things as well as most other people, strongly disagree regarding scale item "I wish I could have more respect for myself," and disagree regarding scale item "All in all, I am inclined to feel that I am a failure." This finding can be explained by either their advance in age (as it is evident in this study that the elder students have more self-esteem and self-compassion, despite not reaching a significant level), and becoming more mature; a gradual adaptation to the academic environment; taking more responsibility for their learning; besides, the majority of the current study sample were males who had more

independent status than females, which is given them by culture.

The study finding by Arshad *et al.* (2015) on self-esteem and academic performance among university students supported this interpretation. It revealed that male students have a high score on self-esteem than female students, and self-esteem is one of the key factors affected by an individual's academic performance. On the other hand, Bibi *et al.* (2016) study's results proved no difference between females and males concerning self-esteem among university students. They emphasized that new females are getting more opportunities for education, job, and independence; besides, the study population included only university students who are getting an education in top colleges in Egyptian society.

In the current study, it was observed that there is no statistically significant relation was present between student's age and total score of self-esteem and self-compassion. This finding may be because the students in this age group perceive self-compassion as a useful alternative to self-esteem when considering what constitutes a healthy self-stance. Neff and McGehee (2010); Neff and Pommier (2013) studied the relationship between self-compassion and self-esteem for a sample of undergraduates and reported that age has no significant impact on their studies. On the other hand, Hutz and Zanon (2011) observed that the age group between 20 and 30 years had fewer self-esteem scores than other age groups, while the age group between 16 to 19 years achieved higher scores. De Souza and Hutz (2016) also displayed that the higher self-compassion score was in the age group 31 to 66 years, displaying that age factor causes score differences due to developmental aspects. Therefore, further studies are still needed to investigate the correlation between age and self-compassion or even self-esteem.

The current study finding indicated that female students have higher self-compassion and self-esteem scores than males, with a statistically significant difference. This finding may be due to younger females having higher emotional wellbeing associated with self-compassion and self-esteem. On the contrary, Neff and McGehee (2010) detected higher self-compassion in adult men than women while failed to find self-compassion gender differences in the adolescents. Likewise, Neff *et al.* (2007); Iskender (2009) did not notice any self-compassion gender differences. Conversely, Neff (2003b) informed significant low self-compassion and mindfulness scores in women but high scores of self-criticism, isolation, and over-identification, compared to men. Hence, additional studies are still needed to explore a gender difference in self-compassion and self-esteem scores.

Gedik (2019) indicated that, in general, it becomes apparent based on existing literature that there is no consistent indication with regards to the relationship between gender differences, self-compassion, and accompanying self-esteem. This finding might be based on the fact that most of the research was conducted in restricted samples, such as university students or employees.

The present study reveals higher mean scores for having self-esteem and self-compassion among students who regularly slept. In contrast, the lowest mean score obtained was for students who do not have a regular sleep, but it did not reach the significant level (it might be due to the small sample size). This finding may be interpreted that good and sufficient sleep is associated with wellbeing and positive personality characteristics. This finding disagrees with *Butz and Stahlberg (2020)*, who reported an association (medium correlation) between self-compassion and sleep quality in varied samples. Furthermore, they supported the causal role of self-compassion behavior in improving sleep quality as self-compassionate people are more satisfied with their life.

Regarding physical activities, students doing physical activities had the highest mean score for having self-esteem and self-compassion, with a statistically significant difference. This finding supports the scientific fact that physical exercise or activities can improve mental health. It has been shown to reduce depression, anxiety, and negative moods and alleviate social withdrawal and boost self-esteem and cognitive functions. These results are consistent with *Horan and Taylo (2018)*, who investigated the relationship of self-compassion and health behaviors in university employees and found that employees who show a higher level of self-compassion exhibit more healthy behaviors in their daily routine which especially refers to mindfulness exercises and doing physical activities. *Schoenefeld and Webb (2013)* discovered that people with a high level of self-compassion are doing exercises more often, which refers to physical training within one's free time. Moreover, *Gedik (2019)* study results on university students indicated a positive relationship between the level of self-compassion and accompanying healthy behaviors were significant predictors of health-promoting behaviors, including 'physical activity,' 'nutrition,' 'spiritual growth,' 'interpersonal relations,' and 'stress management.'

Rabon et al. (2019) focused on the self-compassion relationship with physical wellness. It emphasized that exercise and other healthy behaviors positively affect cognition and emotions by increasing self-esteem and self-compassion, decreasing psychological impairment and depressive symptoms, and reducing suicide risk. *Magnus et al.'s (2010)* results showed that self-esteem and self-compassion promotion might help develop positive sport experiences in women who exercise. They attributed that to the beneficial effects of self-esteem and self-compassion to overcome negative emotions such as shame, guilt, fear of failure, and fear of negative evaluation. Also, *Semenchuk et al. (2018)* recommended that self-compassion facilitates self-regulation of health behavior, including exercise.

The present study reveals no statistically significant correlation detected between suicidal behavior and the presence of a source of support and help when the students' suffering from psychological, social, or academic problems. This might be associated with that about half of the studied students had always tried to understand, and they give themselves the care and attention they need when a difficult time has passed.

These results are consistent with *Arslan et al. (2009)*, who reported that when students enter university education, they experience a wide range of changes that may affect every level of their lives, regardless of their cultural background and supporting resources. This experience may also expose them to stressful situations that may have an emotional and academic impact (*Tosevski et al., 2010*). In this sense, university students must have coping strategies that allow them to experience college comfortably to take advantage of the challenges and opportunities that a university environment may offer. Otherwise, the changes and challenges that students face may bring intense psychological suffering and, in the extreme, lead them to suicide. What makes it necessary to have sources to support students (*Ganz et al., 2010*).

Concerning the correlation between self-compassion, self-esteem, and suicidal behavior, the current study results reveal that suicidal behavior was inversely and highly statistically significantly correlated with self-esteem and self-compassion. In contrast, self-compassion and self-esteem were positively and highly statistically significantly correlated. This result is definitely because self-compassion and self-esteem may protect against suicidal behavior by promoting more adaptive coping skills to better handle stressful situations. Following our results, *Rabon et al. (2019)* pointed out a positive correlation between self-compassion and wellness behaviors and a negative correlation between both and depressive symptoms. Also, depressive symptoms and suicidal behavior would be positively associated. Therefore, both self-compassion and suicidal behavior would be inversely related, i.e., the low self-compassion level was related to more suicidal behavior engagement and vice versa.

Similarly, *Sirois et al. (2015)* found that self-compassionate people view less negatively and realize that everyone may fail rather than becoming overly self-critical or feeling guilt or shame. Also, they focus on goals that are of personal benefit to their wellbeing via successful health behavior regulation. All these features mentioned formerly decrease the risk of engagement in suicide behavior. *De Souza & Hutz* also interpreted this result in 2016. They expected that people who have self-compassion have self-satisfaction rather than self-blaming, self-understanding rather than criticism, understanding that suffering is a human experience not unique, consequently increasing their self-esteem self-efficacy. A previous study by *Neff & Vonk (2009)* found that self-esteem and self-compassion were statistically equivalent predictors of happiness, optimism, and positive affect and may be a useful alternative to each other.

Moreover, *Semenchuk et al. (2018)* proved that both self-compassion and self-esteem exerted a strong correlation ($r=0.78$) and complimentary benefits only in negative affect and rumination; self-esteem alone offered benefit in situational motivation and goal reengagement. In contrast to past self-compassion research conducted by *Leary et al. (2007)* provided additional evidence that self-compassion is related to thoughts, feelings, and behave differently than self-esteem, so self-compassion and self-esteem were differentially related. One difference between self-compassion and self-esteem might involve defensiveness, i.e., self-esteem is more defensive than self-compassionate to feel better about themselves.

7. Conclusion

Hence, we conclude that the majority of the students were not get supported by the college. Moreover, less than half of the students had sometimes and frequently at other times, thinking of suicide. On the other hand, more than half of them have never experienced suicidal thoughts. More than a quarter of the studied sample reported that they sometimes have suicide attempts. Self-esteem and self-compassion were significantly correlated. Also, it can be concluded that suicidal behavior is significantly affected by students' self-esteem and self-compassion. Additionally, self-esteem and self-compassion are enhanced by sleeping regularly and doing physical exercises.

8. Recommendations

Based on the previous study findings, the following are recommended:

- Replication of the same study in the future to include a representative sample of all universities and colleges in the Arab Republic of Egypt to generalize the results and develop strategic solutions at the university and college level.
- Establish the psychological counseling and support units for students in every college that are staffed and supervised by psychologists, whose tasks includes:
- Set effective suicide prevention strategies based on the identification of risk and protective factors among the students.
- Embrace psychological interventions that increase self-compassion and self-esteem while reducing negative emotion and depressive symptoms, such as acceptance and commitment therapy and dialectical behavior therapy skills.
- Using psychoeducation, motivational interviewing, and behavioral activation strategies as regular sleep, continuous exercises, and balanced diets.
- Civil society and the caregivers should urge young people, whether girls or boys, to sleep well and regularly for a sufficient number of hours, as well as urge them to practice physical exercise, provide capabilities and facilitate access to service, as well as increase the awareness of the importance of good sleep and physical exercise through different social media.

- The responsibility to protect students from suicidal thoughts is not an individual responsibility; it is the responsibility of the university's academic advising units, caregivers, and the community.

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