

RESILIENCE, SOCIAL SUPPORT, AND STRESS AS PREDICTORS OF SUICIDE IDEATION AMONG PUBLIC UNIVERSITIES' STUDENTS IN EGYPT

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Abstract: "Gold and Karmur",2011 found that there is a significant correlation between life stresses such as mutual personal loss like ending a relation with a friend, and legal problems and suicide, as mutual personal loss has been associated consistently with the misuse disorder of psychoactive substances. While the legal problems are more correlated with disorders of thinking, which refers to the importance of interaction between social support, life stresses and suicide ideation when predicting thinking of suicide as can't be considered as direct predictor for suicide ideation.

Individuals' lives is always an ongoing series of compatibility operation, it was necessary for the to be flexible and able to adapt with obstacles, so the person who has less flexibility is unable to adapt himself with social situations or life events.

The aim of the study is to examine the mutual relationship between Suicide ideation and resilience, social support, and social stress among universities under-graduates. The sample consisted of 293 Egyptian universities' students from both males and females between (18-24) years. The researchers used four data collection questionnaire and scales which were: Suicide ideation scale ; resilience scale; perceived stress Questionnaire; and social support Questionnaire.

A descriptive exploratory- correlated study to determine and collect data about the research's problem. A Social sample survey method was used. The results indicated that there are significant differences between males and females in perceived stress, resilience, and social support, favoring females; no significant differences were found between main scores of males and females in Suicide ideation . A positive correlation exists between males' and females' scores in Suicide ideation and their scores on perceived stress. A negative correlation exists between males' and females' scores in Suicide ideation and their scores on resilience, and social support. The researchers found out that perceived stress is a significant predictor of Suicide ideation for females, while for males perceived stress and social support are significant predictors of Suicide ideation. Also, there was a relationship between the academic sufferings, social stresses and suicide ideation between females.

Keywords: Group at risk of suicide, Resilience, Social support, stress, Suicide ideation

INTRODUCTION

At the outset of the year 2011, a relatively recent phenomenon emerged in some Arab societies, representing the utmost despair and wrath of passive protest. The phenomenon, known as the "Bouazizi Phenomenon", means "citizens committing suicide by self-burning in front of the political decision-making entities in their

countries, protesting against the deteriorating living conditions and the violation of their rights as citizens"¹. In this context, some Egyptian citizens set themselves on fire as a protest against the deteriorated economic, political, and living conditions. A citizen stitched his mouth with thread and needle and staged a sit-in in front of the Journalists Syndicate requesting his right to medical treatment and the removal of the former Minister of Health Hatem El Gabaly, threatening to commit suicide by setting himself on fire if his demands were not answered. All the preliminary observations of events concluded that increased prices and unemployment are the two principal factors behind the spreading of such a painful phenomenon among Egyptian youths.

Due to the changeable nature of university environment, students may experience high levels of pressure that affect their health and academic achievement (Hamaideh, 2011)². The university stage is a critical one, where some development needs become more pressing than others are. It may be the first time for the student to live away from their parents, and they have to make the choices for their subjects of specialization. They also have to work diligently to prepare themselves for their professional career. This is in addition to building relationships with their colleagues of both sexes, and the necessity of making responsible life-style and social life decisions. The main task at this stage is establishing a personal identity where the young person sees himself/herself as different and distinguished from others. As a part of identity formation, the young person has to plan for his/her professional career, achieving academic excellence, and forming meaningful relationships with other (Mamdouhah Salama 1990: 155).

MATERIAL AND METHODS

Research Issue

Suicide occupies the third place among causes of death for young people in the age range 15:24. It comes after injury due to accidents and murder. It is also considered the second cause of death among the university students. In addition, suicidal actions are spread among university students, male more than female³.

In this regard, Goul & Karmer (2001)⁴ found a significant correlation between life stresses - such as the mutual personal loss (as in terminating a relationship with a partner) - and legal issues and suicide. The mutual personal loss is associated harmoniously with abuse of substances causing psychological effects among victims of suicide. At the same time, legal problems were more closely associated with inconsistent thinking disorders. Psychological heritage indicate the importance of interaction between social support and life stresses when predicting suicidal thinking, for only one of the two cannot be solely responsible for predicting suicidal thinking (Yang & Clum, 1994).

Study Importance

1. Revealing explanatory theories of suicide and its relationship with university students sector, the relationship between the study variables and suicidal thinking, and the characteristics of university students thinking about suicide.
1. Identifying sources of resistance to stresses resulting from the psychological effects of the individual's exposure to stressful life events like strength, self-esteem, resilience, and social support (Emad Ibrahim, 1997).
2. The university stage represents an increase in social expectations and the accompanying social and psychological conflict, increased emotional tension. Consequently, the need for guidance and support increase with the increase of events and situations (Mamdouha Salama, 1990, p. 156).
3. Detecting methods for prevention through studying suicidal thinking among non-clinical samples (university students), and identifying underlying factors causing such though.

¹ Iman Mohammed Hosni Abdullah, *Youths: Social and Political Movements*, The Egyptian Book Authority, Family Library, Series of Humanities, 2012, pp 340, 341

² Hamaideh, S. H. (2011). Stressors and reactions to stressors among university students. *International Journal of Social Psychiatry*, 57(1), 69-80.

³ Cohen et al., 2007; Garlow et al., 2008; Drum et al., 2009

⁴ Madelyn S Gould; Rachel A Kramer, *Youth suicide prevention, Suicide & Life - Threatening Behavior*; Spring 2001; 31, Research Library,p.6.

4. Practical aspect: Discovering the relationship between resilience, social support, and stresses with suicidal thinking among university students will support the design of guidance programs that help university students in developing their resilience.

Study Objective

1. Designing a tool for measuring the stresses facing university students and defining their psychometric features in the local environment.
2. Exploring sex differences among university students in suicidal thinking, recognizing life stresses, resilience, and social support.
3. Exploring the relationship recognizing life stresses, resilience, social support, and suicidal thinking.
4. Exploring the nature of mutual impact of recognizing life stresses, resilience, and social support on the scores of suicidal thinking among university students.
5. Examining the isolation of the effect of resilience and social support scores from the relationship between suicidal thinking and recognizing pressure among university students.
6. Identifying the ability of resilience, social support, and recognizing stresses severally for predicting suicidal thinking.

Theoretical Framework

- Internal conflicts on the individual level (Sigmund Freud, 1975): curbing suicide and psychotherapy can be realized through addressing such conflicts and learning means for adaptation with these stresses and conflicts (Freud 1957).
- According to Durkheim's study on suicide defines suicide as: "Suicide is all cases of death where death is a direct or indirect result of a positive or negative action done by the person himself knowing that this action will lead to this result". The total number of suicide cases in a certain country allows us to calculate the rate of suicide as a social phenomenon. Furthermore, Durkheim associated suicide with mental illness (biological causes), cosmic factors (environment causes), and imitation and impressions (cultural causes). In the same regard, Stillion, MacKdwell, 1996, p. 65⁵ summarizes the issue of suicide in the necessity of interpreting it in the light of the social and cultural context surrounding the persons thinking about suicide and the psychological problems that they face at various times.
- Theories explaining crime: Suicidal thinking implies causing harm and using violence against oneself in the first place. (Holmes, Holmes, 2009, p. 65)⁶ is of the opinion that the crimes are caused by the position an individual occupies in the society. A child that currently commits acts of violence will necessarily commit an act of violence against himself or his community. Therefore, social education, social up-bringing, social criteria, secondary knowledge of young and old people, class structure, urban and self-perception, and rural life-styles are all factors causing suicidal thinking.

Concepts covered by the Study (Keywords):

Suicide

Social studies indicate that the higher levels of social integrity are associated with lower rates of suicide and lesser symptoms of depression (Berkman, 1999); (Durkheim, 1982)⁷; (Stillion, McDowell, 1996, p.65). Durkheim further stated that the rates of "Egoistic Suicide" are adversely associated with family density (MacDwell, Stillion, 1996, p. 65). In addition, suicide rates increase with the society's oppression of individuals through its complex organizations⁸ (Cutter, 1998, p. 4).

⁵ Stillion, M. & McDowell, E. (1996), *Suicide across the life span: premature exits*. New York, NY: Taylor and Francis.

⁶ Holmes, R. & Holmes, S. (2009), *Serial Nurder: the sociological perspective*. Thousand Oaks, CA: Sage.

⁷ Durkheim, E. (1982). *The Rules of the Sociological Method*, (Ed. By Steven Lukes: trans. By W.D. Halls). New York, NY: Free Press, pp. 50-59.

⁸ Cutter, F. (1998). "Review of the 20th century theories." Retrieved on February 23, 2010 from: <http://suicidepreventiontriangle.org/Suichap3.htm>

Suicidal Thinking

It involves thinking of harming or killing oneself concerning (repetition, intensity of thinking, and timing of suicidal thinking)⁹.

Groups at Risk of Suicidal Thinking

It is the group with a higher risk for suicidal thinking than other groups¹⁰.

Social Stresses

Social stresses defined by Mamdouha Salama (1991) as "Everything which may compel an individual to change his/her life style or one aspect of it, in a way that requires that individual to modify or restructure his/her previous consensus."

Resilience

Rutter (1987) defines it as an alleviating factor that protects individuals from mental disorders. He describes individuals with resilience or flexibility as possessing self-appreciation, believing in their personal effectiveness, and having a store of skills for solving problems (Wagnild & Young, 1993).

Social Support

The term "social relations network" is considered the beginning for the emergence of the term "social support". Nevertheless, Liberman (1982) was of the opinion that "social support" is a much narrower concept than the concept of "social relations network". He argues that social support depends mainly on the awareness of the individuals of their social networks as the environment consisting of the individuals in whom they trust and with whom they have reliable relationships (Mohammed Al Shenawy & Mohammed Abdel Rahman, 1994: 3). Bioleck & Hornes (1992) state that exposure to severe life stresses may have adverse effect on the individual's awareness of the extent of social support. This might cause a decrease in said support at which time the individual is in dire need for it¹¹.

Over the last decade, social media has contributed to achieving social support, the motivation and spreading of specific ideas and thoughts, negative or positive. Such networks allow users to interact with friends through blogs, games, and exchange of photos¹².

Study Hypotheses

- There are significant differences between the mean scores of university students, male and female, in each of the variables: suicidal thinking, recognizing stresses, resilience, and social support.
- There is a statistically significant correlation between the scores of suicidal thinking and the scores of recognizing life stresses, resilience, and social support among university students.
- Isolating the effect of the scores on resilience weakens the strength of correlation between recognizing stresses and suicidal thinking among male and female university students.
- Isolating the effects of the social support scores weakens the correlation between recognizing stresses and suicidal thinking among male and female university students.
- There is a predictive ability between each of the resilience, social support, and recognizing stresses variables and the score on suicidal thinking.

METHODOLOGY

This study is an observational descriptive correlational study that used the social survey method on the sample.

Demographic Characteristics of the Sample:

Principal Sample: The study sample consisted of (293) university students, male and female, from an original (n=300). After applying the study tools and reviewing their responses, (7) questionnaires were removed for lack of responses on some scale. The ages of the sample ranged between 18 and 24 years with a mean age of 19.56 and standard deviation of 1.239 years. The number of males is (129), age ranged between 18 and 24 years, with a mean

⁹ SK Goldsmith, et. El., P. 28

¹⁰ Ibid.

¹¹ Farid Mohammed Fayed, *ibid.*, p. 989

¹² See: http://www.veecos.net/portal/index.php?option=com_content&view=article&id=4375:2010-11-30-17-16-10&catid=169:general&Itemid=122, seen on Thu.14 May,2014.

age of 19.78 years and a standard deviation of 1.312 years. The number of females is (164), age ranged between 18 and 24 years, with a mean age of 19.40 years and a standard deviation of 1.154 years. The number of males and females aged 18 - 19 years represented 49.15% of the sample, followed by males and females aged 20 – 21 years, represented 39.59% of the sample, and males and females aged 22 years and over, represented 11.36% of the total principal study sample. Statistically significant difference between males and females were found in the age variable, higher on the male side.

All male and female respondents were asked about their rank between siblings. For the male sample, 24.8% of the male respondents in the total sample were eldest among their siblings. As for females, 17.1% of the female respondents in the total sample were eldest among their siblings.

The university students groups were built on the following numbers, keeping in mind that the data collection tools were used with the entire sample

- Academic and study pressure group: 124 males and 153 females.
- Economic stresses group: 88 males and 82 females.
- Family stresses group: 157 males and 127 females.
- Social stresses group: 104 male and 131 females.
- Social resilience group: 129 males and 163 females.
- Social support group: 128 males and 161 females.
- Suicidal thinking group: 129 males and 163 females.

Data collection tools

Stressful Life Events Scale

Aims to obtain a quantitative estimation of the university student's recognition of stressful events, and to identify all the negative events and situations that trigger hardship and suffering among university students of both sexes.

Statements describing the scale included the following

- Academic stresses: such as increased awareness of the study load, fear of exams, and the uncertainty of professional future.
- Economic stresses: such as decreased family income and the sufficiency of income and its suitability to needs.
- Family stresses: such as troubled relationship between the parents, troubled relationship between the students and his/her parents, individual and family health, and family disputes.
- Stresses of social relations: such as the mutual relation between the students and others (friends and the opposite sex) outside the scope of family.
- Stresses of body image: related to the individual's satisfaction of his/her body in this age bracket.

The internal harmonization of the tools was ensured through the calculation of correlation coefficients between the score of each item and the total score of the sub-component to which it belongs; then identifying the correlation between the total scores of each sub-scale and total score of the scale as a whole. This is in addition to the mutual correlation coefficients of the sub-scales.

Thirty-one statements were retained. The correlation did not fall below 0.20 and there was no negative correlation. It can thus be stated that there is an internal homogeneity in the scale. The correlation coefficients were calculated between the sub-domains forming scale and the correlation coefficient between the total scores for each scale were identified, as well as the total scores of the scale as a whole.

Table (1) shows that the mutual correlation coefficients between the scores of sub-areas of the stressful life events ranged between 0.33 and 0.51. Those coefficients are acceptable, indicating the correlation between the components, their internal homogeneity, and its measuring of a single concept. The correlation coefficients between sub-areas and the total score ranged from 0.55 to 0.75, which are also considered acceptable coefficients. This indicates that the variables of the scale measure the same content.

Table 1: Correlation coefficients between sub-areas of the stresses scale, and the correlation coefficients between the total scores of each sub-scale and the total scores of the scale as a whole (n = 181)

5	4	3	2	1	Variable
0,41	0,33	0,35	0,40	-----	1-Academic stresses
0,40	0,47	0,36	-----		2-economic stresses
0,36	0,51	-----			3-Family stresses
0,46	-----				4-Social relations stresses
-----					5-Body shape stresses
0,37	0,76	0,75	0,65	0,55	6-total degree of stresses

The stability of the scale was calculated using Cronbach's alpha coefficient method.

Table 2: Stability of the alpha coefficients for the recognizing life events scale

Alpha factor	Sub areas
0,61	1-Academic stresses
0,77	2-economic stresses
0,68	3-Family stresses
0,69	4-Social relations stresses
0,73	5-Body shape stresses
0,85	6-total degree of stresses

The alpha stability coefficients for the sub-areas ranged between 0.61 and 0.77, which is acceptable. The stability coefficient of the scale as a whole is 0.85. The scale was presented to three psychology professors at the Faculty of Arts and Education at Helwan and Zagazig universities, as arbitrators to ensure the accuracy of the formulation of the items in the light of the operational definition for each subdomain. The percentage of the arbitrators' agreement on the phrases ranged between 70 and 100%. Some of the phrases were reformulated linguistically, and others were removed as per the arbitrators' suggestions.

The concurrent validity of the scale was calculated through the identification of correlation coefficients between its scores and the scores of the economic stresses scale, prepared by (Salama, 1991) based on the standardized sample previously described. The correlation coefficient between them reached 0.33, which is a positive significant correlation at 0.01 level. It is considered a medium strength coefficient as the economic suffering measures only one of the academic stresses areas.

The factor analysis was performed through the principal components set by Hotellingg, using the Statistical Package for Social Sciences (SPSS), and depending on Kaiser Criterion set by Guttman. In light of this criterion,

the coefficient whose square root is equal or greater than one as a whole number is accepted. The coefficients with at saturation of at least three items are also accepted, where the item's saturation with the coefficient is not less than (0.3). The principal components methods were chosen because it is considered the most accurate factor analysis method. One of the most important advantages of the method is the possibility of extracting the maximum variation per coefficient, thus the mutual variables matrix can be summarized in the least number of factors.

The factor analysis was performed for 31 phrases, representing the phrases of the scale. The analysis sample was (181) individual. The factor analysis of the scale phrases identified the existence of (7) factors whose Eigen Value is greater than one, thus interpreting (52.234) of the total variation.

Table 3. Extracted values after rotation of the phrases of the stressful life events scale (n-181)

Common coefficient	Seventh factor	Sixth factor	Fifth factor	Fourth factor	Third factor	Second factor	First factor	Variables	Sentence No.
0,630							0,748	My family took a loan	22
0,628							0,652	Too many debts on the family	7
0,579							0,631	I'm not satisfied of my family's income	17
0,554							0,621	My family post ponded an important surgery and request of medical care	27
0,403							0,576	House is very tight	12
0,625							0,528	Income is not enough for basic needs like food and clothes and buying books	2
0,664						0,764		Difficulties in establishing friendship with others	9
0,627						0,72		Difficulty with coping with others	29
0,467						0,594		Inadequate support from friends	19
0,593						0,543		Loneliness	24
0,489						0,496		I'm not able to establish friendship with the opposite sex	14

0,752		0,836	Waiting for the results of the final exams	16
0,704		0,796	Fear of exams	11
0,504		0,618	Get low grades in examinations	26
0,725		0,786	I feel dissatisfaction about my body's shape	5
0,714		0,704	I feel upset overweight	10
0,638		0,512	I feel less attractive in others' eyes	25
0,576		0,498	When I look to the mirror I don't like what I see	30
0,629		0,690	Frequent disputes within my family	3
0,576		0,650	My family doesn't support me enough	8
0,660		0,547	Tuition increases	1
0,604	0,718		Injury or one of family is ill	23
0,715	0,629		Weakness of my health or one of my family's members	13
0,537	0,590		Surgery for me or someone close to me	28
0,499	0,487		End a close relationship I cherish	4
0,625	0,479		Fighting with my family	18
0,697	0,806		I'm embarrassed from my body's form	15
0,726	0,557		Harassments from others	20

									because of my body's form	
0.535	0,348								My skin color makes me sorrow	31
16,191	1,761	2,171	2,209	2,248	2,269	2,650	2,883	The underlying root		
52,234	5,681	7,004	7,126	7,253	7,320	8,549	9,301	Correlatives contrast ratio		

The factor analysis resulted in nine factors. Two factors with less than three saturation items (factors eight and nine) and their phrases (6 – 12) were removed. The factor analysis has resulted in the existence of seven factors, after the rotation of factor. The Eigen value for each factor was greater than one. These factors attracted 52.234% of the total correlation variation value of the matrix. The following is a description of the factors resulting from the factor analysis:

The first factor: Its Eigen value reached 2.883. This factor acquired 9.301% of the total correlation variation. Six phrases were fundamentally saturated on this factor, phrases numbers (22 - 7 – 17 - 27 - 12 - 2). It includes items that ranged between 0.748 and 0.528. This factor was called “economic stresses”. An example of the highest saturation phrases is “my family took a loan ”.

The second factor: It Eigen value reached 2.650. This factor acquired 8.549% of the total correlation variation. Five phrases were fundamentally saturated on this factor, phrases numbers (9 - 29 – 19 - 24 - 14). It includes items that ranged between 0.764 and 0.496. This factor was called “inter-personal stresses”. An example of the highest saturation phrases is “difficulty in forming friendships.”

The third factor: Its Eigen value reached 2.269. This factor acquired 7.320% of the total correlation variation. Three phrases were fundamentally saturated on this factor, phrases numbers (16 - 11 - 26). It includes items that ranged between 0.836 and 0.618. This factor was called “academic stresses”. An example of the highest saturation phrases is “waiting for exam results.”

The fourth factor: Its Eigen value reached 2.248. This factor acquired 7.253% of the total correlation variation. Four phrases were fundamentally saturated on this factor, phrases numbers (5 - 10 – 25 - 30). It includes items that ranged between 0.786 and 0.498. This factor was called “body image stresses”. An example of the highest saturation phrases is “I am not satisfied why my body image”.

The fifth factor: Its Eigen value reached 2.209. This factor acquired 7.126% of the total correlation variation. Three phrases were fundamentally saturated on this factor, phrases numbers (3 - 8 - 1). It includes items than ranged between 0.690 and 0.547. This factor was called “the domestic sphere”. An example of the highest saturation phrases is “the high number of disputes and fights within my family.”

The sixth factor: Its Eigen value reached 2.171. This factor acquired 7.004% of the total correlation variation. Five phrases were fundamentally saturated on this factor, phrases numbers (23 – 13 - 28 - 4 - 18). It includes items that ranged between 0.718 and 0.479. This factor was called “health of the individual and family”. An example of the highest saturation phrases is “I, or a family member, is suffering from a serious illness.”

The seventh factor: Its Eigen value reached 1.761. This factor acquired 5.68% of the total correlation variation. Three phrases were fundamentally saturated on this factor, phrases numbers (15 - 20 - 31). It includes items that ranged between 0.806 and 0.348. This factor was called “body size and color”. An example of the highest saturation phrases is “I am not satisfied with the small size of my body”.

The factorial validity calculation shows that all the phrases of the scale were saturated on all the correlative factors in the matrix, with the exception of items (6 – 12), which were removed. The number of phrases in the scale after modification is (29) phrases at the level of factor analysis. The factor structure of the life stresses scale indicated its content validity, the consistency of its items, and their efficiency in measuring what they were

developed to measure. Thus, after the completion of the verification procedures for the psychometric properties of the survey, it was deemed valid for use.

Correcting the scale: The scale is of Likert type that gives the respondent the opportunity to identify his/her agreement on the item using a score of five levels: Never happened = 1, Not affecting = 2, mildly affected = 3, moderately affected = 4, and highly affected = 5. All the phrases are in the negative, meaning that the high score on the scale indicate increased stresses. The scale score ranged between 29 and 145 degrees. The scores on the sub-scales ranged between 4 and 20 degrees for academic stresses, 6 and 30 for economic stresses, 6 and 30 for family stresses, 6 and 30 for social stresses, and 7 and 35 for body image stresses.

The summarized form for the resilience scale

It is developed by (Wagnild, 2009) and translated by the researchers. It was developed as a summarized form of the resilience scale designed by (Wagnild and Young) in 2001. The summarized version consists of 14 items chosen from the 25 items of the resilience scale. It is considered a Likert scale type, where respondents are requested to choose one of seven alternative. The score for each item ranges between 1 and 7, and the total scale score ranges between 14 and 98.

Table 4. Correlation coefficients between the item score and the overall scale score

Resilience scale					
Correlation	Item	Correlation	Item	Correlation	Item
0,63	3	0,62	2	0,30	1
0,62	6	0,52	5	0,39	4
0,54	9	0,60	8	0,65	7
0,65	12	0,64	11	0,44	10
		0,62	14	0,60	13

The correlation coefficient between the item score and the total scale score ranged between 0.30 and 0.65, which are considered medium to high coefficients. This resulted in retaining all the items without removing any of them.

Cronbach's alpha stability coefficient was calculated for the scale as a whole. The coefficient reached 0.82, which indicated the measurement of all items on the same concept. The concurrent validity of the resilience scale was calculate with the psychological strength scale. The psychological strength is one of the concepts linked to the concept of resilience. The Kobaza psychological strength scale developed by (Emad Mukhaimer, 1996)¹³ was used. The value of correlation coefficients between the resilience scale and the psychological strength scale reached 0.560, which is a significant coefficient at the level 0.01.

Factorial validity

The factor analysis was performed through the principal components set by Hotellingg, using the Statistical Package for Social Sciences (SPSS), and depending on Kaiser Criterion set by Guttman. In light of this criterion, the coefficient whose square root is equal or greater than one as a whole number is accepted. The coefficients with at saturation of at least three items are also accepted, where the item's saturation with the coefficient is not less than

¹³ Mukhaimer, Emad (1995). Self-esteem and the Stability Source: Medium Psychological Characteristics in the Relationship between Life Stresses and the Symptoms of Worry and Depression, Ph.D. thesis (not published), Faculty of Arts, Psychology Department, Zagazig University.

(0.3). The principal components methods was chosen because it is considered the most accurate factor analysis method. One of the most important advantages of the method is the possibility of extracting the maximum variation per coefficient, thus the mutual variables matrix can be summarized in the least number of factors.

The factor analysis was performed for 14 phrases, representing the phrases of the scale. The analysis sample was (181) individual. The factor analysis of the scale phrases identified the existence of (3) factors whose Eigen Value is greater than one, thus interpreting (52.234) of the total variation. The table below presents the matrix of statistically significant factors and their saturations after the orthogonal rotation of axes, the Eigen value, and the percentage of variation correlation of each factor.

Table 5. Extracted factors after rotation of the phrases of the resilience scale (n-181)

Common factor	Third factor	Second factor	First factor	Variables
0,562			0,748	13- my life has meaning
0,507			0,683	11- my self- confidence makes me overcome difficult times
0,503			0,675	2-I'm proud of things made in my life
0,431			0,583	3- I take things enthusiastically
0,468			0,509	6- I've a lot of will
0,223			0,417	10-there is usually something that raises a laugh
0,581		0,753		5- I do many things at the same time
0,550		0,639		7- I can overcome difficult times with my previous experiences
0,445		0,616		12- I'm a person that people can rely on in difficult times
0,492		0,610		14- when I'm in a difficult situation I can find a way out
0,501		0,348		1- I succeed often on one way or another
0,610	0,695			4-I'm a friend to my self
0,477	0,427			8- I've organizing myself
0,523	0,411			9-I keep my interest in things
6.872	1,299	2,456	3.117	The underlying root
49.089	9,279	17.542	22,268	Correlative contrast ratio

The factor analysis resulted in three factors after the axes rotation using Kaiser's Varimax method. The Eigen value for each of the factor was greater than one. These factors attracted 49.089% of the total correlation variation value. The following is a description of the factors resulting from the factor analysis:

The first factor

This factor acquired 22.268% of the total correlation variation. Its Eigen value reached 3.117. Six phrases were fundamentally saturated on this factor, phrases numbers (10 – 6 – 3 – 2 – 11 - 13). It includes items that ranged between 0.748 and 0.417. This factor was called "sense of meaning" which concept revolves around feeling there is

a goal to life and overcoming difficulties to reach it. An example of the phrases for the factor is “usually there is something humorous”.

The second factor

This factor acquired 17.542% of the total correlation variation. Its Eigen value reached 2.456. Five phrases were fundamentally saturated on this factor, phrases numbers (1 – 14 – 12 – 7 - 5). It includes items that ranged between 0.753 and 0.3418. This factor was called “self-resilience.” The concept of the phrases of this factor revolves around faith in oneself and in the individual’s capabilities. Examples of the phrases for the factor are “I perform a lot of things at the same time”, and “I often succeed one way or another”.

The third factor

This factor acquired 9.279% of the total correlation variation. Its Eigen value reached 1.299. Three phrases were fundamentally saturated on this factor, phrases numbers (4 – 8 - 9). It includes items that ranged between 0.695 and 0.411. This factor was called “poise”. The concept of the phrases of this factor revolves around the poised individual’s perception of his/her life. Examples of the phrases for the factor are “I am my own friend”, “I maintain my interest in things”.

The factorial validity calculation shows that all the phrases of the scale were saturated on all the correlative factors in the matrix. The number of phrases in the scale after modification is (14) phrases at the level of factor analysis. The factor structure of the resilience scale indicated its content validity, the consistency of its items, and their efficiency in measuring what they were developed to measure. Thus, after the completion of the verification procedures for the psychometric properties of the scale, it was deemed valid for use.

The tool in its final form

The scale in its final form consisted of (14) items. The instructions for the scale were formulated as follows: In front of you are some phrases that describe your opinion on some life issues. Read each phrase carefully and add a tick (✓) in the columns (always – sometimes – rarely - never) which determines your perception of those life issues. The scale is corrected by adding a score for each item based on the response chosen by the respondents from four response alternatives: always = 4, sometimes = 3, rarely = 2, and never = 1. The scores on the scale ranged between 14 and 56 degrees, where the higher score refers to the positive side and increased resilience.

Suicidal Thinking Scale

This developed by (Hussein Fayed, 1998)¹⁴. The scale was developed with the purpose of measuring suicidal thinking in the local environment through the verification of the tool’s psychometric characteristics as follows:

Factorial validity

The suicidal thinking scale was applied in its pre-final form (10 items) on a sample of female university students (n=150). Three factors were extracted that acquired 53.827% of the total correlation variation, which is a reasonable percentage. One item which saturation on the factors was not fundamental was removed. The length of the scale in its final form became (18 items).

The first factor was called “the desire to commit suicide”. The factor’s Eigen value is 4.658, and it acquired 24.516% of the total correlation variation. Its items are related to the desire to end life, like in items (15 – 8 – 5 – 1 – 2). The item (14) is the lack of reasons for life, while item (10) indicates that the death of individual would make close person happy, and item (17) refer to the lack of methods for the individual to end his or her life.

The second factor was called “thinking about suicide, planning for it, and attempting suicide”. The factor’s Eigen value is 4.222, and it acquired 22.220% of the total correlation variation. Its items are related to the density and continuity of suicidal thoughts (items 3 – 9 – 6). Item (11) refers to planning for suicide, and items (4 – 6) refer to failed attempts and the expectation of further attempts for suicide. Item (16) refers to the intention to commit suicide.

As for the third and last factor, it was called “expressing suicidal tendencies”. The factor’s Eigen value is 1.347, and it acquired 7.091 of the total correlation variation. Its items are related to forms of expressing the individual’s

¹⁴ Fayed, Hussein (1998). Differences in Depression, Despair, and Perception of Suicide among University Students, *Psychological Studies*, 8 (1), 41 – 78.

suicidal tendencies, represented in writing about death and suicide, speaking about, or watching suicide in media (items 12 – 7 – 20). The factorial structure of the suicidal thinking scale indicated its content validity, the consistency of its items and their efficiency in measuring what they were developed for measuring.

In the current research, the factorial validity of the scale was calculated based on a pilot study sample, where factor analysis was applied for (18) phrase representing the phrases of the scale. The results of the factor analysis for the phrases of the scale show the existence of 2 factors whose Eigen value exceed a whole one, thus interpreting (64.303) of the total variation. The table below presents the matrix of statistically significant factors and their saturations after the orthogonal rotation of axes, the Eigen value, and the percentage of variation correlation of each factor.

Table 6. Extracted values after rotation of the phrases of the suicidal thinking scale (n-181)

Coefficient common	Second factor	First factor	variables
0.729		0.815	11-I planned to end my life
0.764		0.796	9- I was thinking of killing myself
0.714		0.779	6-frequent suicidal thoughts
0.718		0.776	13- I expect committing suicide
0.616		0.768	4- I failed in suicide attempts
0.630		0.742	17-I've too many ways to end my life
0.682		0.741	12- writing on death and suicide
0.676		0.720	3- I've suicidal thoughts
0.600		0.669	16- I told someone that I'll kill myself
0.725	0.845		1-I've the intention to commit suicide
0.724	0.826		2- life has become bad it makes desire to terminate it
0.735	0.779		5- I wish not to live
0.716	0.739		15- I wish that my life ends
0.727	0.726		8- I feel my life not worth to keeping it
0.675	0.679		14- I think there are no reasons to be alive
0.655	0.602		7- speaking about death and suicide
0.360	0.471		10- I feel that the closest people to me would be better if I were off
11.575	1.533	10.042	The underlying root
64.303	8.516	55.787	Correlative contrast ration

The factor analysis resulted in two factors after the axes rotation using Kaiser's Varimax method. The Eigen value for each of the factors was greater than one. These factors attracted 64.303% of the total correlation variation value. The following is a description of the factors resulting from the factor analysis:

The first factor

This factor acquired 55.787% of the total correlation variation. Its Eigen value reached 10.042. Nine phrases were fundamentally saturated on this factor, phrases numbers (11 – 9 – 6 – 13 – 4 – 17 – 12 – 3 – 16). It includes items which saturation ranged between 0.815 and 0.669. This factor was called "thinking about suicide, planning for it and attempting it". An example of the phrases for the factor is "I have planned to end my life".

The second factor

This factor acquired 8.516% of the total correlation variation. Its Eigen value reached 1.533. Eight phrases were fundamentally saturated on this factor, phrases numbers (1 – 2 – 5 – 15 – 8 – 14 – 7 – 10). The phrases include items which saturation ranged between 0.845 and 0.471. This factor was called "wishing to commit suicide". An example of the phrases for the factor is "I want to commit suicide".

The factorial validity calculation shows that all the phrases of the scale were saturated on all the correlative factors in the matrix, except for item (18), which was removed. The number of phrases in the scale after modification is (17) phrases at the level of factor analysis. The factor structure of the suicidal thinking scale indicated its content validity, the consistency of its items, and their efficiency in measuring what they were developed to measure. Thus, after the completion of the verification procedures for the psychometric properties of the scale, it was deemed valid for use.

Scale consistency

The scale developer calculated the tool consistency using the internal harmonization method with Cornbach's alpha formula. The scale was reapplied after a two weeks interval, where consistency coefficients reach 0.78 and 0.91 successively, which is considered acceptable consistency coefficients.

In the current study, the scale consistency was verified using alpha consistency method. The alpha coefficient reached 0.95, while internal harmonization ranged between 0.402 and 0.808, which are considered acceptable consistency coefficients.

The tool in its final form

The scale in its final form consisted of (17) items. There were five alternative responses for each item: never applied = 1, rarely applied = 2, sometimes applied = 3, often applied = 4, and always applied = 5. All the phrases in this scale were formulated with negative tendency towards suicidal thinking. Thus, the higher the respondents' score on the phrases of the scale, the higher the tendency towards suicidal thinking, and vice versa. The scale consists of (17) item and its scores on the scale ranged between 17 and 85 degrees.

Social support scale

It was developed by Zimet & Canty in 2000, localized by (El Sayed Abu Hashem (2010)¹⁵. The scale is called multidimensional scale for receiving social support. It consists of 12 phrases, distributed among the three dimensions of support, 4 for each dimension: support from family (3 – 4 – 8 – 11), support from friends (6 – 7 – 9 – 12), and support from significant others (1 – 2 – 5 – 10).

The psychometric characteristics of the scale in the Egyptian environment were verified with a sample of 153 students in Zagazig University whose mean age is 19.81 year, and a standard deviation of 0.59. Alpha Cronbach coefficient was calculated for each dimension, which were 0.86, 0.85, and 0.88, and 0.90 for the scale as a whole.

¹⁵ Abu Hashem, El Sayed (2010), the structural model of relationships between psychological happiness, the five greatest personality factors, self-esteem, and social support among university students.

The factorial validity of the scale was calculated. All the phrases of the scale saturated on three factors 73.25% of the total variation. There were five alternative responses for each item: strongly disagree = 1, disagree = 2, neutral = 3, agree = 4, strongly agree = 5. All the phrases in this scale were formulated with positive tendency towards social support. Thus, the higher the respondents' score on the phrases of the scale, the higher the tendency towards social support, and vice versa. The scale consists of (12) item and its scores on the scale ranged between 12 and 60 degrees.

Study time and place

Time domain: January - July 2014

Spatial domain (location): Cairo University and Helwan University

RESULTS AND DISCUSSION

First, the results of the first hypothesis

The first hypothesis

"There are significant differences between the mean scores of university students, male and female, in each of the variables: suicidal thinking, recognizing stresses, resilience, and social support".

Table 7. Differences between the Mean Scores of University students, Male and Female, from the Total Scores Related to Suicidal Thinking, Recognizing Stresses, Resilience, and Social Support

significance	T value	Females (n=164)		Males (=129)		sample variables
		N	M	N	M	
Not significant	1.693	12.695	30.12	16.894	33.05	1-suicidal thinking
Sig. at 0.01	4.155	17.435	84.11	17.176	74.66	2-recognizing stresses
Sig. at 0.05	2.171	5.274	44.74	7.222	43.15	3-resilience
Sig. at 0.01	2.600	8.003	46.28	9.075	43.66	4-social support

Table (7) shows that there are no statistically significant differences between the mean scores of male and female university students in suicidal thinking. However, there are significant differences between the mean scores of male and female university students in recognizing stresses, resilience, and social support. Due to those differences, statistical methods for testing the rest of the hypotheses will be done for each group separately.

Second, the results of the second hypothesis

"There is a statistically significant correlation between the scores of suicidal thinking and the scores of recognizing life stresses, resilience, and social support among university students".

Mutual correlation coefficients between the variables of the study among university students

For the male sample

Table 8. Simple Mutual Correlation Coefficients between the Study Variables among the Male group * (n = 129)

social support	resilience	recognizing stresses	suicidal thinking	variables
** -0.30	** -0.34	** 0.31	-----	1-suicidal thinking
0.08	** -0.50	-----		2-recognizing stresses
*0.18	-----			3-resilience
-----				4-social support

Table (8) shows the existence of a positive statistically significant correlation at the level 0.01-0.05 between the scores of the group of male university students on the suicidal thinking scale and the score of recognizing pressure ($r = 0.31$), and their scores on the scale of resilience and social support ($t = 0.18$). It also shows the existence of a negative statistically significant correlation at the level 0.01 between the scores of the group of male university students on the suicidal thinking and resilience scales ($r = -.34$), between the suicidal thinking and social support scales ($r = -.30$), and between the recognizing stresses and resilience scales ($r = -.50$). In addition, there is no statistically significant correlation between the scores of the group of male university students on the recognizing stresses and the social support scales ($t = 0.18$).

Table 9. Value of the Pearson coefficient for the relationship between gender (male) and suicidal thinking

males no.	Pearson coefficient value	Stresses types
88	0.398	Economic sufferings
124	0.048	Tuition sufferings
127	0.165	Family stresses
117	0.313	Social stresses
129	-0.299	resilience
128	-0.299	Social support

Table (9) shows a weak positive correlation among 124 respondents suffering from academic stresses and suicidal thinking; and a weak positive correlation among 122 respondents suffering from economic stresses and suicidal thinking. There is also a weak positive correlation among 127 respondents suffering from health problems and family health issues and suicidal thinking.

The table also reveals the existence of weak reverse correlation among 129 males possessing flexibility and suicidal thinking; and a weak reverse correlation among 89 cases with the ability to adapt social and psychologically and suicidal thinking. There is also a weak reverse correlation among 128 males between social support and suicidal thinking.

For the female sample

Table 10. Value of the Pearson coefficient for correlation between gender (female) and suicidal thinking

Females no.	Pearson coefficient value	Stresses types
81	0.189	Economic sufferings
152	0.273	Tuition sufferings
156	0.420	Family stresses
150	0.371	Social stresses
162	0.165-	resilience
161	0.266-	Social support

The table illustrates the lack of a correlation among 81 female respondents between economic stresses and their impact on suicidal thinking, but a weak positive correlation exists between academic stresses and its difficulties, social stresses, and the suicidal thinking among approximately 152 female. The medium positive correlation showed between family stresses and suicidal thinking among 156 female. The table also shows a reverse correlation between social resilience and suicidal thinking, and between social support and suicidal thinking.

Table 11. Simple Mutual Correlation Coefficients between the Study Variables among the Group of Females (n = 164)

Social support	resilience	Recognizing stresses	Suicidal thinking	variables
** 0.27-	* 0.17-	** 0.46	-----	1-Suicidal thinking
**0.23	**0.36	-----		2-recognizing stresses
** 0.39	-----			3-resilience
-----				4-social support

The table shows the existence of a statistically significant positive correlation at the level of 0.01 between the scores of the group of female university students on the suicidal thinking and recognizing pressure scales ($r = 0.46$), and between their scores on the scales of resilience and social support ($t = 0.0 0.39$). A statistically significant negative correlation exists at the level of 0.01.0.01 between the scores of the group of female university students on suicidal thinking and resilience scales ($r = - .17$), suicidal thinking and social support scales ($r = - .27$), recognizing stresses and resilience scales ($r = - .36$); and between the scores on recognizing stresses and social support scales ($r = - .23$).

Third, the results of the third hypothesis

The third hypothesis "Isolating the effect of the scores on resilience weakens the strength of correlation between recognizing stresses and suicidal thinking among male and female university students."

Coefficients for simple correlation between the main study variables of the study were calculated, and then partial correlation was used to isolate the effect of the scores on resilience from the relationship between recognizing stresses and suicidal thinking in the two groups of male and female university students.

For the male university students' sample

Table 12. Simple correlation coefficients between the scores of suicidal thinking, recognizing stresses, and resilience in males (n = 129)

Resilience	Recognizing stresses	Suicidal thinking	variables
- 0.34 *	0,31**	---	
- 0.50**	---		1-suicidal thinking
---			2-recognizing stresses
			3-resilience

Table 13. Partial correlation coefficients between the study variables in males (n = 129)

Significance level	T value	Partial correlation coefficient	Variables
0.05	2.2	0,19	0,3021

Table (13) shows the simple mutual correlation coefficients between the study variables among male university students in both suicidal thinking and recognizing stresses. The table (13) shows that when the scores of resilience was statistically isolated from the relation between the scores of suicidal thinking and recognizing stresses was done, the value of correlation coefficients decreased from ($r = 0.31$) to ($0.3021 = 0.19$) and significance also decreased from 0.01 0.05. This reflects that resilience plays a mediator role in the relationship between recognition of stresses and suicidal thinking.

For the female university students' sample

Table 14. Simple correlation coefficients between the scores of suicidal thinking, recognizing stresses, and resilience females (n = 164)

resilience	Recognizing stresses	Suicidal thinking	variables
-	0.17 *	0,46**	—
-	0.37**	—	1-suicidal thinking
—	—	—	2-recognizing stresses
			3-resilience

Table 15 . Partial correlation coefficients between the study variables in females (n = 164)

Significance level	T value	Partial	correlation coefficient	Variables
0.001	5.6		0,40	0,3021

The table shows the simple and mutual correlation coefficients between the study variables among female university students in suicidal thinking, recognizing stresses and resilience. Table (15) also shows that when a statistical isolation for the effect of the resilience scores from the scores on suicidal thinking and recognizing stresses resilience was done, the value of correlation coefficients decreased from ($r = 0.46$) to ($r_{3021} = 0.40$).

Table 16. Partial correlation coefficients between the study variables in females (n = 164)

Significance level	T value	Partial	correlation coefficient	Variables
0.001	5.6		0,40	0,3021

Table (16) shows the simple and mutual correlation coefficients between the study variables in female university students in suicidal thinking, recognizing stresses, and resilience. The table also shows that when the scores on resilience were statistically isolated from the scores of suicidal thinking and recognizing stresses, the value of the correlation coefficients decreases from ($r = 0.46$) to ($r_{3021} = 0.40$).

Fourth, the results of the fourth hypothesis

The fourth hypothesis, "Isolating the effects of the social support scores weakens the correlation between recognizing stresses and suicidal thinking among male and female university students".

The coefficients for simple correlation between the main study variable were calculated, and then partial correlation was used to isolate the effect of the scores on social support from the relationship between recognizing stresses and suicidal thinking in the two groups of male and female university students.

For the male university students' sample

Table 17. Simple correlation coefficients between the scores of suicidal thinking, recognizing stresses, and social support among males (n = 129)

Social support	recognizing stresses	Suicidal thinking	Variables
** 0,30	-	**0.31	—
**0,08	-	—	1-suicidal thinking
—			2-recognizing stresses
			3- social support

Table 18. Partial correlation coefficients between the study variables in males (n = 129)

Significance level	T value	Partial correlation coefficient	Variables
0.001	3.41	0,29	0,3021

Table (18) shows the simple and mutual correlation coefficients between the study variable among male university students in suicidal thinking, recognizing stresses, and social support. Table (18) shows that statistically isolating the effect of the scores on social support from the relationship between the scores of suicidal thinking and recognizing stresses has slightly decreased the value of correlation coefficients from (r = 0.31) to (r 3021 = 0.29).

Table 19. For the female university students' sample

Social support	Recognizing stresses	Suicidal thinking	Variables
-.**0.27	**0.46	----	1-suicidal thinking
-.**0.23	--		2-recognizing stresses
--	--	--	3-social stresses

Table (19) shows the simple correlation coefficients between the scores of suicide thinking And understand the stresses and social support among females (n = 164)

Table 20. Partial correlation coefficients between the study variables in females (n = 164)

Significance level	T value	Partial correlation coefficient	Variables
0.001	5.7	0,41	0,3021

Table (20) shows the simple and mutual correlation coefficients between the study variables among female university students in suicidal thinking, recognizing stresses, and social support. Table (20) also shows that when effect of the scores on social support was statistically isolated from the relationship between the scores of suicidal thinking and recognizing stresses, the value of correlation coefficients decreased from (t = 0.46) to (r 3021 = 0.41).

Fifth, the results of the fifth hypothesis

The fifth hypothesis, “There is a predictive ability between each of the resilience, social support, and recognizing stresses variables and the score on suicidal thinking.”

Gradual declining coefficients were used to identify the predictive ability of each of the recognizing pressure, social support, and suicidal thinking among university students, male and female. It was also used to identify which of those modified variable has the higher ability to predict the dependent variable. The above tables show these results.

For the male university students’ sample

Table 21. Gradual declining analysis to predict suicidal thinking in males (n = 129)

significance	T value	Significance	F value	Standard coefficient regression Beta	Coefficient regression B	Contribution percentage	Independent variable	Dependent variable
0.001	3.289	0,001	10,818	0,310	0,302	0,096	Recognizing stresses	Suicidal thinking
0.001	3.154	0.001	8,709	0,291	0,284	0,147	Social support+ recognizing stresses	

The table indicates that there are statistically significant positive predictive values at the level of 0.001 for the recognizing stresses and social support with suicidal thinking. Recognizing stresses contributes with approximately 9% in the variation of scores on suicidal thinking among university students, while social support contributes with approximately 14% in the variation of scores on suicidal thinking. This means that the more students are aware of the stresses, and the less the social support is, suicidal thinking is higher.

To identify which of the independent variables has a higher ability to predict the dependent variable (suicidal thinking) among males, both the recognizing stresses and social support variables were added together in the gradual decline analysis model. The analysis resulted in the addition of the recognizing stresses variable, followed by the social support variable in a statistically significant manner, and the exclusion of the resilience variable. This indicates that recognizing stresses and social support are the variables with the most ability to predict suicidal thinking among male university students.

For the female university students' sample

Table 22. Gradual declining analysis to predict suicidal thinking among females (n = 164)

significance	T value	significance	F value	Standard coefficient regression Beta	Coefficient Regression B	Contribution percentage	Independent variable	Dependent variable
0,001	5,939	0,001	35,274	0,466	0,333	0,217	Recognizing stresses	Suicidal thinking

The table indicates that there are statistically significant positive predictive values at the level of 0.001 for the recognizing stresses with suicidal thinking. Recognizing stresses contributes with approximately 21% in the variation of scores on suicidal thinking.

To identify which of the independent variables has a higher ability to predict the dependent variable (suicidal thinking) among females, recognizing stresses, resilience, and social support were added together in the gradual decline analysis model. The analysis resulted in the addition of the recognizing stresses variable in a statistically significant manner, and the exclusion of the resilience and social support variables. This indicates that recognizing stresses is the variable with the most ability to predict suicidal thinking among female university students.

“There is a predictive ability between each of the resilience, social support, and recognizing stresses variables and the score on suicidal thinking.”

To test this hypothesis, gradual declining coefficients were used to identify the predictive ability for each of the recognizing stresses and the social support variables to suicidal thinking among male and female university students, and to identify which of these modified variables has the higher ability to predict the dependent variable.

For the male university students' sample:**Table 23.** Gradual declining analysis to predict suicidal thinking among males (n = 129)

significance	T value	Significance	F value	Contribution percentage	Independent variable	DEPENDENT VARIABLE
0,001	3,289	0,001	10,818	0,087	Recognizing stresses	
0,001	3,154	0,001	8,709	0,130	Social support+ recognizing stresses	Suicidal thinking

The table indicates that there are statistically significant positive predictive values at the level of 0.001 for the recognizing stresses and social support variables with suicidal thinking. This means that the more students are aware of the stresses, and the less the social support is, suicidal thinking is higher. Recognizing stresses contributes to the variation of scores on suicidal thinking.

To identify which of the independent variables has a higher ability to predict the dependent variable (suicidal thinking) among males, recognizing stresses, resilience, and social support variables were added together in the gradual decline analysis model. The analysis resulted in the addition of the recognizing stresses variable, followed by the social support variable in a statistically significant manner, and the exclusion of the resilience variable. This indicates that recognizing stresses and social support are the variables with the most ability to predict suicidal thinking among male university students.

For the female university students' sample**Table 24.** Gradual declining analysis to predict suicidal thinking among females (n=164)

significance	T value	significance	F value	Contribution percentage	The independent variable	The dependent variable
0,001	5,939	0,001	35,274	0,211	Recognizing stresses	Suicidal thinking

The table indicates that there are statistically significant positive predictive values at the level of 0.001 for the recognizing stresses with suicidal thinking.

To identify which of the independent variables has a higher ability to predict the dependent variable (suicidal thinking) among females, recognizing stresses, resilience, and social support variables were added together in the gradual declining analysis model. The analysis resulted in the addition of the recognizing stresses variable in a statistically significant manner, and the exclusion of the resilience and social support variables. This indicates that recognizing stresses is the variables with the most ability to predict suicidal thinking among female university students.

DISCUSSION OF RESULTS

First Hypothesis

The results of the first hypothesis indicated the existence of statistically significant difference between the mean scores of male and female university students on recognizing stresses, academic stresses, family stresses, social relationships pressure, resilience, and social support, with the difference tending towards the females. However, there are statistically significant differences between the mean scores of male and female university students in suicidal thinking, economic stresses, and body image stresses.

With regard to gender differences in life stresses, the social upbringing for both sexes has to be taken into consideration in most Arab countries, where the female is given a lower status than the male, and higher limits are imposed on the female than the male (Salama 1991 A).

There are biological and social roles that are emphasized from an early age in order for the boy to become a man, such as independence, reaching high levels of achievement and control, controlling emotions, and limiting grief. The female on the other hand can show those emotions, where a degree of tolerance is provided for her. The family also identifies specific roles for the female that she has to play, such as raising children; and emphasizes some of the qualities that a female must uphold like obedience and cooperation. This leads the male son to perceive events as challenges, while the female daughter perceives stresses as threats (Seddik, 2003), which later affects both, the recognition of life stresses, and the confrontational methods to address them.

Based on the above, females tend to recognize life events to a more extreme degree than males, whether positive or negative (Youssef, 1994).

Therefore, the results showed an existence of gender differences in the total score related to life stresses, and in so consistent with the studies of Felsten (Felsten, 1998) and Mario (Mario, 2001), which found that females are more aware of the stresses of life. On the other hand, those results differed from the studies of Mukhaimar (Mukhaimar, 1995), and Seddik (Seddik, 2003), which found that males are more aware of the stresses of life, and Mukhaimar's study (Mukhaimar, 1997), which found no gender differences in the recognition of life stresses.

Results also found differences between male and female university students in academic pressure tending to be higher in females. In this regard, according to Misra's study (Misra, 2000), females are higher in academic stresses than males who are aware of their ability to control their time, set objectives, and organize them. This agrees with the findings of the study (Abdul Wahab, 2009).

Differences were also found between male and female university students in the stresses related to family and social relations, again tending to be higher in females.

Rudolph (Rudolph, 2002) pointed that females are more vulnerable to the stresses of inter-personal relationship both with the family and with others. He also pointed to the gender related changes in the form and function of the relationship with family and peers through the years of development. The interpersonal relationships of the female are characterized by high levels of intimacy, self-detection and emotional support, whereas the males' relationships depend on participation in activities.

This is consistent with the findings of Rudolph's study (Rudolph, 2002) which found that females are more aware of the stresses of interpersonal relationships than males. However, this contradicts with the studies of Mukhaimar (Mukhaimar, 1995) and Seddik (Seddik, 2003) that found males more aware of the stresses of interpersonal relationships than females.

Concerning the field of economic stresses, male and female university students do not differ in the recognition of such stresses. The study of Salama (Salama, 1991) considers economic stresses an independent factor that directly affects the life of the individual and the family because it determines the occurrence or the non-occurrence of specific events or actions. Economic pressure is crucial in important aspects like children's education, health care, necessities, luxuries, entertainment, and time pass activities. Its effect occurs indirectly through several other intermediate variables including the supporting environment made available through the network of social relationships and distinguished psychological characteristics of individuals, all of which are considered sources of strengths in dealing with stresses.

The results are consistent with the findings of the study (Abdel Wahab, 2009) but contradicts with the findings of the studies of (Mukhaimar, 1995), and (Seddik, 2003) which indicated the existence of differences in economic stresses, higher in males.

Concerning the field of body image stresses, there are no differences between the sexes in this regard. Both males and females in this stage worry about issues related to their body images. These results contradict with (Abdel Wahab, 2005) who found differences between males and females in recognizing stresses related to body image.

There are also statistically significant differences between the mean scores of male and female university students in resilience, higher in females.

This can be explained with the difference between sexes, which can be affected consciously or unconsciously by the individual's awareness of stereotypical roles associated with gender. Those stereotypical roles impose that a woman expresses feelings of grief, happiness, and fear more strongly than a man does. On the other hand, the man expresses feelings of anger and aggressiveness more than a woman does (Mahon, Yarcheski & Yarcheski, 2005). Thus, the stereotypical roles can explain the existence of differences between the sexes in resilience, which is higher in females. The woman's expression of her feelings of sadness, happiness, and even fear might give her the ability to restore her adaptability to stressful situations, especially that this is acceptable for women in eastern communities, while it is unacceptable for men.

These results are consistent with the results of (Romer, Ravitch, Karalyn, Merrell, & Katherine, 2011; Ryan, & Caltabino, 2009; Wallin & Runeson, 2003) that indicate the existence of gender differences related to resilience, higher in females. The result however contradict with the results of (Peng, Zhang, Li, Li, Zhang, Zuo, Miaa, Xu, 2012 & Abdul Sattar, 2013) indicating the existence of gender differences related to resilience, higher in males.

The results of the first hypothesis noted the existence of statistically significant differences between the mean scores of male and female university students related to social support, higher in females. Kessler and McLeod indicate that females have a higher ability to form intimate relationships, and they carry more burdens than men do in supporting friends and relatives, which has adverse effects on the psychological and maybe physical health (House, 1987). This result contradicts with the results of (Misra, 2000) which indicate that there are no differences between males and females in perceived social support.

Finally, the results have also shown that there are no differences between male and female university students in suicidal thinking. This may be due to the current life complexities resulting from the two revolutions that the country experienced (25 January and 30 June), and their deep effects on Egyptian economy, as well as the increased stresses imposed on young people, the uncertainty of future and their lack of capabilities. The academic aspect alone has become insufficient in achieving their goals, which increases their feelings of frustration and the loss of meaning to life, leading them to suicidal thoughts and emotions to get rid of this life.

A person cannot live unless he knows a meaning for his life. We do not deal with different things as they are but we rather deal with them through what they mean for us. This means that we do not deal with abstract things, but we know them and deal with them through our selves (Adler, 2009:19).

This result is consistent with the results of Rudd (Rudd, 1989) and (Fayed, 2008: 223) that confirms the lack of differences between male and female university students related to suicidal thinking. The result however contradicts with the study (Wang, Lightsey, Tran, & Bonaparte, 2013) that indicates the existence of significant differences between male and female black students related to suicidal thinking, higher in males.

Second Hypothesis

The results of the second hypothesis indicated the existence of statistically significant positive relationship between the scores related to suicidal thinking and the scores related to recognizing stresses among male and female university students. This results means that the higher the suicidal thinking, the more aware university students (male and female) are of life being stressful.

This result can be explained according to the cognitive model. The repeated exposure of a person to stressful life events, accompanied by perceived lack of ability to manage or have control over these events results in

acquisition of a sense of helplessness and inability to act or control his life (Seddik, 2003). This increases suicidal thinking among individuals.

Dixon, Heppner, and Anderson (Dixon, Heppner, and Anderson, 1991) indicated that individuals with increased level of suicidal thinking recognize stresses in a more significantly than individuals with low scores related to suicidal thinking.

This result is consistent with the results of (Dixon, Rumford, Heppner, Lips, 1992; Yong & Clum, 1994; Laster, 2014; Zhang et al., 2013; Liu & Miller, 2014). That indicated the existence of significant correlation between life stresses and suicidal thinking.

The results of the second hypothesis also indicated the existence of statistically significant negative relationship between the scores related to suicidal thinking and the scores of social support and resilience among university students (male and female).

The existence of negative relationship between suicidal thinking and social support can be explained according to the main or direct effect model, which indicates that social support has a general effect, useful for both physical and psychological health.

Social networks can provide individuals with regular positive experience and a group of roles that receive support from society. This type of support is related to happiness, as it provides a positive state of conscience, a sense of stability with life situations, and recognizing self-importance (Cohen & Wills, 1985). In his analysis for social epidemiological studies, Durkheim found that suicide is more prevalent among the weakest groups in the social relations (Vaux, 1988:2).

This result is consistent with (Fayed, 2006), and study of Kalichman and colleagues (Kalichman, Heckman, Kochman, Sikkema, & Bergholte, 2000; McMenemy, Jordan, & Mitchell, 2008).

Third Hypothesis

The results of the third hypothesis specified that the statistical isolation of the effect of the resilience scores from the relationship between recognizing stresses and suicidal thinking has led to the modification of this relationship among male and female university students. This indicates that the relationship between recognizing stresses and suicidal thinking is not a direct relationship, but is being modified through resilience.

This result can be explained through the the schematic appraisals model of suicide that refers to positive self-assessment as an important preventive factor against suicidal thinking and suicidal behavior, providing a major source of resilience (Johnson et al., 2010).

In this frame, it can be noted that resilience in itself is the ability or the outcome of successful adaptability in the face of challenges or threatening situation (Veselska et al., 2009). Resilience is the ability to overcome stresses and avoiding two or more negative consequences of stresses to which most individuals submit. Resilience includes five characteristics, which are perseverance, sense of meaning, poise, internal flexibility, and self-confidence. In explaining this relationship, we find that the main objective of resilience research is the identification of preventive factors that can change the negative consequences of bad life conditions (Luthar et al., 2006).

This result is consistent with (Roy et al., 2011; Nrugham et al., 2010; Johnson et al., 2010; Johnson, J., Wood, A., Gooding, P., Taylor, P., & Tarrrier, N. 2011) which indicated that resilience is a protective factor and a modifier of the negative effects of stresses in its relation to suicidal thinking and suicide attempts.

Fourth hypothesis

The results of the fourth hypothesis specified that the statistical isolation for the effect of the social support scores from the relationship between recognizing stresses and suicidal thinking has led to the modification of this relationship among male and female university students. This indicates that the relationship between recognizing stresses and suicidal thinking among university students is not a direct relationship, but is modified by social support.

Social support effectively reduces psychological distress, such as depression or anxiety, during the times of stress. It is also associated with a variety of physical health benefits including positive concord for coronary artery disease, diabetes ... etc. It can also reduce the likelihood of illness, rapid recovery at the disease onset, and reducing

death likelihood. On the other hand, the lack of social support during times of psychological stress may cause psychological suffering, especially in individuals who require a high degree of social support but cannot obtain it, such as the elderly or victims of sudden events that could not be controlled (Kim & Sherman & Taylor, 2008).

Cohen & Wills, 1985, show that the stresses buffering model assumes that social support mitigates the probable negative effect of stressful life events on individuals. The individual's awareness that others can provide him or her with the needed support might lead him to evaluate the stressful event as less harmful, thus mitigating the effect of those events on him/her. Among the risk factors for exposure to physical and psychological illnesses are stressful life events. Resistance factors include resilience and social support (Holahan & Moos, 1987).

Yang and Clum (Yang & Clum, 1994) refer to the importance of the interaction between social support and life stresses in predicting suicidal thinking, as one of them cannot be solely responsible for direct prediction of suicidal thinking. Thus, decreased social support is among the risk factors of suicidal thinking (Wilcox, Arri, Calderira, Vincent, Pinchevsky, O'Grady, 2010).

Fifth hypothesis

The results of the fifth hypothesis specified the predictive ability of the recognizing stresses and social support variables for suicidal thinking among male university students, and the predictive ability of the recognizing stresses variable with suicidal thinking among females.

We find that females tend to ask for support from others when feeling stresses and frustration more than males tend to. The man is raised from the beginning in the shadow of social conditions that makes him frown upon expressing fear and anxiety more than the woman expresses. The woman is more able to admit her anxiety (Ibrahim, 2002:52). The lesser the social support and the higher the stresses among males, the higher is suicidal thinking.

Thus, the decreased social support can predict suicidal thinking as it is a preventive factor against negative effects of stresses. It also modifies the relationship between stressful life events and suicidal thinking (King & Merchant, 2008; Kleiman, Riskind, & Schaefer, 2014). This result is consistent with the study of Dorian and David (Dorian & David, 2013) that indicates that social support, especially family support, predicts suicidal thinking among male university students.

The recognizing stresses prediction of suicidal thinking among females can be explained according to (Ibrahim, 2002: 52-53) who referred to the increasing biological crises and social conflicts among females than males. In addition, social stresses are more women than on men, as women play a number of social roles that require adaptability to the needs of others more than men do. Many of the said roles contradict with her requirements, and those contradicting requirements trigger conflict and psychological stress, and accompanying anxiety and lack of stability. Women also experience more biological changes than men do.

CONCLUSION

The results indicated that there are significant differences between males and females in perceived stress, resilience, and social support, favouring females; no significant differences were found between main scores of males and females in Suicide thinking . A positive correlation exists between males' and females' scores in Suicide thinking and their scores on perceived stress. A negative correlation exists between males' and females' scores in Suicide thinking and their scores on resilience, and social support. The researchers found out that perceived stress is a significant predictor of Suicide thinking for females, while for males perceived stress and social support are significant predictors of Suicide thinking. Also, there was a relationship between the academic sufferings, social stresses and suicide thinking between females.

RECOMMENDATIONS

1. Prevention: Studying suicidal thinking among university students and identifying the underlying factors behind it. This will help make the planning and design of suicide prevention programs for young people more effective.
2. Revealing sources of resistance for stresses and the psychological effects resulting from the exposure for an individual to stressful life events, through the implementation of further studies and research.

3. Activating the role of the academic counselors in universities through increasing their numbers, distribution of the student density over an adequate number counselors, and providing suitable places for receiving students.
4. Establishing centers for providing guidance and social, psychological, and health counseling for individuals and groups of young people in all governorates in health and educational institutions. This is for helping them make decision and face daily life stresses (health, psychological, social, familiar, professional, etc.).

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