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THE EFFECT OF EMOTIONAL INTELLIGENCE ENHANCEMENT PROGRAM ON SUICIDAL IDEATIONS, AMONG ATTEMPTED SUICIDE ADOLESCENTS

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ABSTRACT

The present study aimed at, evaluating the effect of emotional intelligence enhancement program, on suicidal ideation among attempted suicide adolescents. Quasi- experimental research design was used. Convenient sample consisted of 36 suicidal adolescents; recruited from Poison Control Center, Cairo University. Data were collected through using; the socio demographic sheet, Beck Depression and Suicidal Inventory BDI-II, Bar chard emotional intelligence scale, and Life Stressors questionnaire. Results revealed that, the family problems were the most prominent stressors. There was positive correlation between depression and suicidal ideation, while there was no significant correlation between emotional intelligence and either suicide ideation, or depression. In conclusion, the program improved depression, suicidal ideation and emotional intelligence. It is recommended that emotional intelligence enhancement programs should be implemented as preventive measure at secondary schools and counseling centers should be established at all schools.

KEYWORDS: Adolescents, Depression, Emotional intelligence, Suicide

INTRODUCTION

Suicide is a public health problem of considerable importance, and over the last 45 years suicide rates have increased worldwide (World Health Organization, 2012). Notably; young people constitute the highest-risk group in one third of the world's countries, and between the ages of 10 and 24.The world is home to 1.2 billion individuals aged 10–19 years. No less than young children do they deserve protection and care, essential commodities and services, opportunities and support, as well as recognition of their existence and worth (UNICEF, 2011). Since emotional intelligence (EI) is related to one's ability to manage stress (Moayedi, HajiAlizadeh, Khakrah, Hosseini, Theshnizi, 2014), this study was aimed to improve the EI of adolescents, who attempted suicide. Emotional intelligence has an inhibitory effect of mediating, mitigating and controlling suicidal ideations in people (Motahar et. al, 2011).

Suicide is one of the leading causes of death, among adolescents and is often correlated with depression (Clow, 2016). According to the world health organization (WHO, 2015), around 350 million people suffer from depression throughout the world. WHO estimates that depression will become the leading global mental health problem by 2020, if urgent action is not taken.

Emotional intelligence plays a key role in determining life success of adolescents. It is the ability to identify, use,

understand, and manage emotions in positive ways to relive stress, communicate effectively, and empathize with others, overcome challenges and diffuse conflicts. Emotional intelligence impacts many different aspects of adolescent's daily life, such as the way they behave and the way they interact with others (Adsul, 2015). Exposure to potentially traumatic events and low emotional intelligence, may influence a person's ability to effectively regulate emotion (Hofman, 2014).

Psychological theories of suicide suggest that, people engage in suicidal behaviors, due to an inability to tolerate or modulate the experience of negative effect. It is therefore possible that those who are especially adept at perceiving, integrating, understanding, and managing their emotions would be at reduced risk, for suicidal behaviors in response to stressful life events (Broquard, 2011; Brackett, Rivers, & Salovey, 2011).

AIM OF THE STUDY

Evaluate the effect of emotional intelligence enhancement program on suicidal ideation among attempted suicide adolescents.

SUBJECTS AND METHOD

Study Design: Quasi- experimental research design "pre-post test" was used.

Setting: The study was conducted at the Poison Control Center (NECTR), Cairo university Hospitals at Kasr Al Ainy.

Subjects: A convenient sample consisted of 36 suicidal attempters adolescents were calculated using a G-power version 3.1.1 for power analysis. A Power of.95 (β = 1-.95 =.05) at alpha.05 (one-sided) was used as the significance level, and effect size= (.05) was utilized. They were tested pre-post intervention.

Inclusion criteria: Both gender, had suicidal ideation and depression, age ranged from 11 to 21 years old, attempted suicide that didn't exceed one month ago, can read and write.

Tools: The questionnaires were used to collect data, includes: **Section I:** Socio- demographic and clinical history. **Section II:** Beck Depression Inventory (BDI-II): the BDI-II contains 21 items, each answer being scored on a scale value of 0 to 3. This tool was translated into Arabic by Ghareeb (2000). **Section III**: Emotional Intelligence scales (Barchard): These scales was originally developed by (Barchard, 2001), to assess the level of emotional intelligence, it consists of 68 items, 5 point likert scale, the tool was translated to Arabic by Zroomba(2014). Reliability, done using Cronbach's Alpha test, equaled 0.67. **Section IV:** Life Stressors Questionnaire, assesses family problems, study problems, job problems, financial problems, emotional problems, health problems and personal problems; **Section V:** Beck's Suicidal Ideation Scale: It is designed to quantify and assess suicidal intention, consists of 19 items that evaluate three dimensions of suicide ideation; active suicide desire, specific plans for suicide, and passive suicidal desire. Each item is rated on a 3- point scale from 0 to 2. The higher the total score, the greater the severity of suicide ideation. It has a high internal reliability with Cronbach alpha coefficients, ranging from .87 to.97 (Beck, et al., 1988; Beck & Steer, 1991).

ETHICAL CONSIDERATION

- The permission was obtained from the Faculty of Nursing Ethics committee.
- Official permission was obtained from the director of the of Poison Control Center.

- Informed assent from each patient and informed consent from each guardian were obtained.

RESULTS

Socio-Demographic and Clinical Characteristics of the Studied Sample

Data from table (1) indicates that studied sample consists of 36 adolescent suicidal attempters; age range is 11 to 21 years with a mean of 16. 69 ± 2.34,(13.9%) early adolescent, while (58.3 %) middle adolescent, and (27.8%) late adolescent. Female represents (89%) of the sample, while (11%) male. Marital status of studied sample shows that (91.7%) are singles. (75%) are students. Concerning education, (72%) have received middle education. (80.6%) of the participants are from urban areas.

Table (2)reveals that(50%) of the participants have no previous suicide attempt, while (50%) has previous suicide attempt ranged from one to 3 times; (27.8 %) of them have one previous suicide attempt, (19.4%) of them have three times or more previous suicide attempts. Family problems are the most prominent stressful life events (83.3%) while (33%) of the participants have emotional problems.

Table (3) shows that the mild depression and high suicidal ideation are most common at middle adolescence. While the minimal depression and high suicidal ideations are most common at early and late adolescence.

Table (4) shows that there is a highly statistically significant difference between total scores of depression pre and post the program (P=0.000), there is significant decline from (29.8) to (18.17). There is a highly statistically significant difference between total scores of suicidal ideation pre and post the program (P=0.000), there is significant decline from (19.56) to (9.18).

Table (5-a) illustrates that there is a statistically significant difference between sub-scales of emotional intelligence as total scores of negative expressivity and emotion& decision making pre and post the program respectively (P=0.05, 0.009), while there is not a statistically significant difference between positive expressivity and emotion& decision making pre and post the program respectively (P=0.76, 0.57).

Table (5-b) indicates that there is a highly statistically significant difference between sub-scales of emotional intelligence as total scores of responsive distress and total score of emotional intelligence pre and post the program respectively (P=0.000, 0.000), while there is not a statistically significant difference between responsive joy and empathic concern pre and post the program respectively (P=0.29, 0.93).

Table 1: Distribution of Studied Sample according to Socio-Demographic Data (n=36*)*

Age(years)	N.	%
Early adolescence 11>14	5	13.9
Middle adolescence 14>17	21	58.3
Late adolescence 17>21	10	27.8
Mean ± SD	16. 69 ± 2.34	
Gender		
Female	32	89%
Male	4	%11
Marital status		
Married	2	5.6
Single	33	91.7
divorced	1	2.8

Education		
Read &write	4	11.1
Table 1: Condt.,		
Primary education	2	5.6
Middle education	26	72.2
University education	4	11.1
Residence		
Urban	29	80.6
Rural	7	19.4
Total	36	100

Table 2: Distribution of Studied Sample according to Previous Suicide Attempt and Stressful Life Events (n=36)

Items	N.	%
Previous Suicide Attempt	18	50
None	10	27.8
One time	1	2.8
Two times	7	19.4
Three times or more	18	50
***Stressful Life Events**		
Family problems	30	83.3
Job problems	0	0
Study problems	2	5.6
Financial problems	1	2.8
Emotional problems	12	33.3
Health problems	0	0
Personal problems	1	2.8

*Not mutually exclusive answers

Table 3: Distribution of the Age of Studied Sample According to Depression and Suicidal Ideation before the program (n=36)

Study Variables	Early adolescence		Middle adolescence		Late adolescence	
	N	%	N	%	N	%
Minimal depression	4	11.1	5	13.8	5	13.8
Mild depression	0	0	14	38.8	3	8.3
Moderate depression	1	2.7	2	5.5	2	5.5
Severe depression	0	0	0	0	0	0
Total	5	13.8	21	58.1	10	27.6
Low suicide ideations	0	0	0	0	0	0
Medium suicide ideations	1	2.7	1	2.7	1	2.7
High Suicide ideations	4	11.1	20	55.5	9	25
Total	5		21		10	

Table 4: Difference between Scores of Depression and Suicidal Ideation Pre and Post Program (n=36)

Study variables	M ± SD	t-test	P
Total depression pre program	29.48±8.28	4.67	0.000*
Total depression post program	18.17±11.1		
Total suicidal ideation pre program	19.56±7.24	6.14	0.000*
Total suicidal ideation post program	9.18±8.16		

*Significant at P<0.05

Table 5-a: Difference between Scores of Sub-Scales of Emotional Intelligence Pre and Post Program (n=36)

Items	M ± SD	t-test	P
Positive expressivity pre	30.83±4.416	0.3	0.761
Positive expressivity post	31.4286±10.8		
Negative expressivity pre	29.16±3.58	1.9	0.05*
Negative expressivity post	30.96±3.99		
Attending to emotions pre	32.89±4.049	0.57	0.572
Attending to emotions post	31.68±11.38		
Emotion& decision making pre	29.62±5.54	2.79	0.009*
Emotion & decision making post	27.08±9.94		

*Significant at P<0.05

Table 5-b: Difference between Scores of Sub-Scales of Emotional Intelligence Pre and Post Program (n=36)

Items	M ± SD	t-test	P
Responsive joy pre	34.45±4.23	1.06	0.296
Responsive joy post	32.31±10.9		
Responsive distress pre	22.90±5.43	10.3	0.000*
Responsive distress post	38.25±5.14		
Empathic concern pre	36.34±3.91	0.078	0.939
Empathic concern post	36.51±12.2		
Emotional intelligence pre	211.5±11.9	7.2	0.000*
Emotional intelligence post	243.2±18.8		

*Significant at P<0.05

DISCUSSIONS

Concerning biological profile (gender) (table 1), the results of this study demonstrated that there is a predominance of female suicide attempters (89%).The results were congruent with Sharaf (1999), Dabbagh (2004), El Shawarbi (2008) and Clow (2016). The reasons for having the females in general and adolescents in specific, to attempt suicide more than males is, it isn't accepted for the females to be dependent except after being married, regardless of their financial independency, even in their opinions. Therefore, this also might influence the emotional expression of anger or find suitable outlet of the aggression.

In some cultures, it is not easy for the adolescents in general and female in specific to be totally independent, even if she is economically independent. On the other hand, these cultures viewed suicide among males as a sign of weakness and passivity. Women tend to use emotions to overcome problems, women experience more stressful life events and many social roles have a greater sensitivity to them than men.

As regards age factor (table 1&3) the result of this study revealed that suicide attempt increases in middle adolescence (14>17 years) (58.3%), have high suicidal ideations (55.5%). This result was supported by Belova, Sabirova and Malykh (2014). Prevalence of suicidal attempts was in both the early adolescents, as well as the late adolescents. This could be explained that, the young are still dependent on the family. Whereas, the late 18-21 maintain adolescents, where they might be classified as young adult and should be more mature and, can solve their problems but also attempt suicide. Therefore, there must have been another factor that affected the adolescent's categories, which is that family problems were more influential on both. This might highlight the source of the adolescent`s suicidal ideations.

In relation to residence (table 1), results of the present study indicated that the majority of suicide attempters (80.6%) resided urban areas. These previous findings are in accordance with most of studies, carried on attempted suicide, as Aly (2012) reported 86% of attempters were urban. It can be attributed to the fact that urbanization often leads to a decline in social cohesion, an increase in social isolation, which may lead to social deprivation, weak family ties and a quickened pace of life that increase stress for individuals. Urbanization was not a risk factor for suicide after the effects of all other factors were controlled as identified by Qin, Argebo and Mortensen (2003).

Regarding education level, the results of current study demonstrated that, (72%) had middle education, (11%) university education, (11%) could read and write. Sudupe, Pita-Fernández, Pardiñas, Bernabé, Fernández, Sande, Louzao, and Pértega-Díaz (2011) found that, (79.2%) had primary and secondary education, but (9.6%) had university education. Also, Aly (2012) found that, (65%) had secondary education. It was inferred from the various results that, suicidal ideation could happen at any educational level and there are other stronger factors as ability, to solve problems and decision making. It is related to person's integrity, that will be able to accept and appreciate the type of support, which consequently is considered as protective factors against trying, to get rid of their life and also, their threshold to tolerate frustration. In this study, because the participants are at adolescence age, so the majority of the sample has middle education.

In relation to marital profile (table 1), the study revealed that, (91.7%) were single and concerning the occupation, the results showed that, (75%) were students as the participants were at the adolescence age. Regarding to previous suicide attempts (Table 2), this study illustrated that half of the participants had previous suicide attempts, ranging from one time to three or more times. This result was supported by Cha& Nock (2015) who found that (57.4%, 55%, respectively), with a recent (i.e., past year) history of suicide ideation and/or attempts (14.8%). In this respect, Sharaf (1999) proved that suicide attempters who reported previous history of twice suicidal attempts had significantly higher intention; it reflects their insisting and determination to die, while those who had a previous history of three or more attempts scored less on suicidal intention.In contrast, it was found in studying suicide attempts that, (90.9%) had no previous suicide attempts (Sharaf,1999) this finding may be due to that, attempting suicide is not their habitual type of coping with problems, but it may be due to response to stressful situation orcrises.

Regarding stressful life events, results of the current study revealed that the most prominent problems were family problems representing 83%, then emotional problems (33.3%).These findings are consistent with Aly`s results (2012). These results were not congruent with Shaalan (2004), who showed that, the most prominent problems were study problems. It might due to adolescents are affected by stressful life situations and the dynamics of the family relations, which might affect the adolescent tendency, to suicidal attempt or ideation. It may be also due to the nature of development, adolescent's personality traits and the readiness to be prey of depression which will, in turn, result in suicide.

In relation to depression and negative expressivity table(4,5),these results are similar to Aranda, Castillo and Salgureo (2012), a study that found significant difference between control and trained group, after program of emotional intelligence training, for adolescents in depression and negative effect. Regarding empathic concern, there was no statistical differences pre and post the program [table (5-b)]. It is congruent with Castillo, Salguero, Fernández-Berroca and Balluerka (2013). It is possible that the empathy, which includes cognitive aspects of adopting others' point of views, might be less susceptible to change. The absence of results among the young female sample may be explained by girls'

greater scores on measures of empathy (Belova, Sabirova, & Malykh, 2014; Pérez-Albéniz, de Paúl, Etxeberría, Montes& Torres, 2003).

Concerning total score of emotional intelligence, the results revealed that, there were statistical differences pre and post the program but not in all subscales as positive expressivity, attending to emotions, responsive joy, and empathic concern. It is consistent with a study that concluded that training EI program is effective at promoting several skills related to mental health in adolescents (Aranda, Castillo & Salgureo, 2012).

In the same way, it was stated that, students who completed the emotional intelligence course were not significantly higher in overall emotional intelligence than students, who did not complete the course (Bond&Manser,2009). This may be explained by the short duration of the study (i.e., the post-test was completed in the 12th session of a 16-session) given, it was indicated that assessment of a training program's effectiveness should be completed after the acquired knowledge and skills have had a chance to develop and be applied and also because withdrawal of participants at any time (Kirkpatrick, 1998).

The intervention is based on structured and interactive activities, role-playing, and exercises adapted to the adolescent's maturity level, for encouraging the participation, also presence of positive reinforcement and participant`s readiness to change. All these factors helping the program to be effective. With regard to the suicidal ideations, the results revealed that there were statistical differences pre and post the program. The results agree with Benito, Brousett-Minaya and Ccori-Zúñiga, Villasante-Idme (2017), that support that the emotional intelligence modulates the suicidal risk. Therefore, it has been shown that, the effectiveness of the intervention program allowed the development of emotional intelligence.

RECOMMENDATION

- Periodical screening for measuring the emotional intelligence and family problems among adolescent's students should be conducted.
- Counseling centers for adolescents and their parents should be established at all schools.
- An emotional intelligence enhancement programs should be implemented as preventive measure at secondary schools.
- Reestablish the school mental health nursing program.
- Assign the psychiatric mental health nurse at all schools for early detection and rehabilitation for students and parents.

CONCLUSIONS

The results evidenced the existence of significant differences between the levels of suicidal ideation, depression, and emotion intelligence before and after the enhancement program; thus, improvement concerned with the aspects of the negative expressivity, emotion and decision making, and responsive distress. Improvement of emotional intelligence consequently lower levels of suicidal ideation in the population at risk.

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