

## Factors Affecting Depression among Teenagers in Port Said City

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### **Abstract:**

**Background:** Teenager depression is a very real problem. Teens depression is common ,chronic, and recurrent and is associated with co-morbid psychiatric condition. So depression prevent young people mastering important developmental task.

**The Aim** of this study is to identify the risk factors that affecting depression among teenagers in Port-Said City.

**Subject and Methods:** A cross sectional study design was used to meet the aim of this study.

**Setting:** The study was conducted in secondary school in Port-Said City.

**Sample:** A random sample of 236 students,125 male and 111 female.

**Tools Of Data Collection:** Tool (I) structure interview questionnaire for socio demographic data. Tool (II) the Arabic version of the multidimensional child and adolescent depression scale (MCADS).

**Results:** The mean age of studied sample was  $16 \pm 1.25$  year. Significant association between teens academic year, mothers education and depression. While the total scores of depression were classified as: high, moderate and low (11.4, 78.0 &10.6) respectively.

**Conclusion** This study concluded that depression is prevalent in teenagers. Breakdown of family relationships and troubles at school are associated risk factors for development of teenagers' depression.

**Recommendation** This study recommended that, In-service training for school nurses and teachers about teen's depression . Awareness programs for families about teens depressions.

**Keywords:** Depression, teenager, teenage depressions, Risk factors affecting depression.

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### I. Introduction

The teen years are typically a time of change and self discovery, rebellion and self-reliance, increased social expectation and peer pressure, and the development of a new identity. From the ages of 12 to 18, children are expected to push limits and experiment with new people, interests, and ideas, often pulling away from their parents and do so with a degree of moodiness and unrest. One in four young people are living with a mental disorder and 9% of young people (16-24 years old) experience high to very high levels of psychological distress<sup>(1)</sup>.<sup>(2)</sup>, cited that depressive disorders are the fourth leading health problem in the world. This suggests that depressive disorders may become the second most disabling disease of mankind by the year 2020. Also,<sup>(3)</sup> reported that 35.7% of Kurdistan population with above 15 years age has depression. teenager depression, a disorder occurring during the teenage years, is marked by persistent sadness, discouragement, loss of self-worth and interest in daily activities. True depression in teens is often difficult to diagnose because normal adolescent behavior is marked by both up and down moods due to the hormonal changes teens experience<sup>(4)</sup>. Family factors and the social context could play an important role in the development of depression; basically those factors that are beyond one's own control, that occur as an unpredictable event within the daily environment, and that recur over time<sup>(5,6)</sup>. examined the social and demographic factors that are significantly associated with higher levels of depressive symptoms, three factors were found with statistically significant associations with more intense levels of depressive symptoms. These factors were: level of satisfaction with one's Financial condition, level of closeness with parents, and level of closeness with peers.<sup>(7)</sup> found that Parental factors with a sound evidence base indicating increased risk for both depression and anxiety include less warmth, more inter-parental conflict, over-involvement, and evasiveness, and for depression additionally, they include less autonomy granting and monitoring. Adolescent major depressive disorder and dysthymic disorder are common, chronic, familial, and recurrent conditions that usually persist into adulthood. These disorders appear to be manifesting at an earlier age in successive cohorts and are usually accompanied by co-morbid psychiatric disorders, increased risk for suicide, substance abuse, and behavior problems. In addition, depressed youth frequently have poor psychosocial, academic, and family functioning, which highlights the importance of early identification and prompt treatment<sup>(8)</sup>. In Egypt, young people between the ages of 15 and 24 represent 22.54 percent of Egypt's total population<sup>(9)</sup>. This large and growing group faces problems and challenges that are unique to them and that require interventions and information that address their needs. Teenage is a time of enormous physical, emotional,

social, sexual and psychological transition. So our study conducted to identify the risk factors that affecting depression among teenagers in Port-Said City.

**Aim of study:** The aim of this study is to identify the risk factors that affecting depression among teenagers in Port- Said City.

## **II. Subject and Methods**

**Research Design:** A cross sectional study design was used to meet the aim of this study.

**Setting:** This study was conducted in four secondary governmental schools in Port-Said, were selected on stratified random basis from four sectors Port-Said City.

**Sample:** A random sample of 236 students, 125 male and 111 female. This will cover the minimal required sample size of 226 students based on assumed prevalence of depression among adolescents = 20.0% with a precision of 5% and confidence level of 95%. (based on paper of Prevalence and predictors of depression among orphans in Dakahlia's orphanages, Egypt) <sup>(10)</sup>.

### **Tools of Data Collection:**

Data were obtained through the following tools: **Tool (I):** structure interview questionnaire for socio demographic data: it was developed by researchers and consisted of questions that elicit the following: personal data such as age, gender, parent education and occupation and family income, problems facing teenagers.

**Tool (II): The Arabic Version of the Multidimensional Child and Adolescent Depression Scale (MCADS).** This scale was developed by (11), it has two compatible Arabic and English version. The Arabic version was used. It was designed to define the profile of child's depression. It has eight dimensions; each dimension is assessed by five statements, so the MCADS has 40 brief statements as follow: **Pessimism:** represented by statements from 1-5, **Weak concentration:** represented by statements from 6-10, **Sleep problems:** represented by statements from 11-15, **Anhedonia:** represented by statements from 16-20, **Fatigue:** represented by statements from 21-25, **Loneliness:** represented by statements from 26-30, **Low self-esteem:** represented by statements from 31-35, **Somatic complaints:** represented by statements from 36-40. A three Likert type rating scale was used to rate the intensity of the depression where None=1, Sometimes=2, A lot=3, except for statements 1, 6, 11, 16, 23, 34, and 35 which were scored as follows: non as 3, sometimes as 2 and a lot as 1. Each item should be answered by selecting only one of the three alternatives, which mostly describes the emotional state of the student. With regard to the reliability of the scale, Cronbach alpha ranged from 0.63 to 0.92 while the test-retest reliability ranged between 0.56 and 0.87. Regarding validity, criterion-related validity ranged between 0.30 and 0.85 <sup>(11)</sup>.

**Pilot Study:** The pilot study was carried out on 10% of the subjects and they were excluded from the study sample to assure the stability of answers. They were chosen to test the clarity and applicability of the tool used, then necessary modification was done according to the results of pilot study and expertise opinions.

**Fieldwork:** The actual study was conducted during the period from February to May 2013, two days each week. Each student takes 15-20 minutes in filling the tools. Collection of data was performed as the following: the researchers obtained an official permission of directors of schools after explaining the purpose of the study and how it will be carried out.

**Ethical Considerations:** An official permission was obtained by submission of an official letter from the directors of School to the responsible authorities of the study setting to obtain the authorization for data collection. The aim of the study was explained to the students before participation, voluntary participation was emphasized and an oral consent was obtained. Assured them that obtained information will be confidential and used only for the purpose of the study.

**Statistical analysis:** Data were analyzed using statistical package for social sciences (SPSS 18). The P-value <0.05 was used as the cut off value for statistical significance. Regarding depression scale; total score for each domain was calculated by summing the discrete scores for its items, then score percent was calculated by dividing the given score multiplied by 100 minus the lowest score over the maximum score. Score percent then transformed into low depression score for those who had a score % < 50.0%, Moderate if score % ranged from 50.0% to less than 75.0% and high depression status if score % exceeded 75%. The following statistical measures were used: mean and standard deviation were used for scale data. Student t-test was used to compare mean depression scores. To identify the most important risk factors contributing to have depression, Spearman

coefficient and multiple stepwise logistic regression were used with expressing the magnitude of effect using adjusted odds ratio for each factor.

### III. Results

**Table (1)** illustrates the demographic data among the studied sample. The results reveal that mean age of studied sample was  $16 \pm 1.25$  year. More than half of the studied sample (53%) was male. As regards distribution of the studied sample based of academic year, it can noticed that, 38.1% of the studied sample were in grade one secondary, 33.5% were in grade two secondary and 28.4 % were in grade three secondary. Speaking about parent's education more than half of the parents (52.5% of fathers and 51.3% of mothers) had a university education. As regard financial condition of the studied sample the majority of them (84.7%) mentioned that family' income was enough.

**Figure (1)** shows that the total scores of depression level according to multidimensional children and adolescent depression scale. The highest total scores of depression was(11.4) and the moderate total scores of depression was (78.0), while the lowest total scores of depression was (10.6).

**Table (2)** shows relation between total score depression among teenagers and their parents relationship, the teens perception of his/her father relationship, revealed that the high mean of depression  $84.31 \pm 15.05$  and  $80.76 \pm 12.29$  were among teens who perceived that their father has no role in him/her life and very aggressive with him/her with statistic significant. On other hand the teens perception of his/her relationship with their mothers it can be observed that the lowest means of depression was  $73.64 \pm 11.89$  and  $73.96 \pm 12.18$  it was among those teens his/her mother communicate with them and satisfy him / her needs with a statistically significant differences.

**Table (3)** represents the relation between depression and school problems facing teens as reported by them. Out of the total studied sample (60.2%) had school problems and mean depression among them was  $76.38 \pm 11.36$  comparing with  $71.48 \pm 13.38$  among those who did not suffering from school problem with highly statistic significant difference. It can be observed that the students who suffering from school problem namely (not understand his teacher, not like school, too much subjects and feel lonely in school) were significant correlated with depression.

**Table (4)** revealed the relationship between depression and the teenagers social and psychological problems relations within the family members as perceived by the teens and its relationship to depression . It can be observed that the mean of depression score  $83.66 \pm 11.17$  and  $83.53 \pm 10.91$  for problems with family and domestic violence respectively with statistic significant difference ( $p < 0.001$ ). While lack of love and understanding within the family members was associated with highest mean of depression among the studied teens  $84.74 \pm 12.0$  compared with  $72.11 \pm 11.32$  mean of depression among those teens who perceived that love and understanding within their family with statistical significant difference between them. The table also indicate that there were high association between all psychological problems and depression, it can be observed teens attempted to suicide had a high mean of depression it was  $83.54 \pm 11.28$ . While attempt to escape from home, Feeling loneliness, the mean of depression  $81.24 \pm 12.56$ ,  $81.81 \pm 11.54$ . On the other hand the lowest mean of depression  $80.78 \pm 13.54$  related to substance abuse with as statistic significant difference.

Stepwise multiple logistic regressions of factors affecting depression among adolescents were performed to explore the risk factors of developing depression. **Table (5)** showed the variables which were significant in the multivariate analyses. The regression coefficients and the odds ratio show the effect of each variable after controlling of the effect of the other variables in the model. There were Positive significant difference between the all above mentioned risk factors and developing depression except those who had not allowed to have friends by mother . Students who had absence of Love at home were more likely (2.10 times) to develop depression. Those who reported that no one care about others within the family were more likely (2.30 times) to develop depression. Those who feel discarded from their family were (2.60 times) more susceptible to develop depression. Those who not permitted to go out of home were (4.40 times) more prone. Those who not allowed to have friends by father were (2.98) more liable to develop depression. Those who reported that relation with mother don't satisfy their demands, and have troubles at school increases the risk of depression by 6.33, and 1.88 times, respectively.

**Table(6)** illustrate the Correlation between total score of depression and demographic data. It can be noticed that significant association between teens academic year, mothers education and depression as 0.223 and 0.181.

### IV. Discussion

Until recently, researchers believed that only adults suffered from depression. They now know, however, that teenagers and even children can suffer from it<sup>(12)</sup>. When teenagers are depressed, they feel sad and self critical, they also believe that others are critical of them. Depressed teenagers are over whelmed at having to make even simple decisions. They often neglect their appearance and may act out their frustrations in an

aggressive fashion <sup>(13)</sup>. The results of this study showed that a proximal similarity of mean scores of depression among teen's boys and girls and this results disagreement with <sup>(14)</sup> who reported that teen's girls have high level of depression than teen's boys.

The finding of present study revealed that teenagers depression was high mainly among teens who were their parent had primary level of education. It can be noticed that the higher level of parents' education, the lower score of depression among their teenagers with statistical difference between mother's level of education and the depression score among their teenagers. This in agreement with <sup>(15)</sup>.

The finding of the current study revealed that teenagers who were suffering from school problems had a high mean score of depression. This corresponds with the results of <sup>(16)</sup> who found that depression is more common among students who had negative feelings toward school and suffering from school problems. This may be because of pressure from parents to their teens to get the highest marks in the study.

The results of the present study highlight the importance of family role in the development of teen's depression. The findings found high score of depression among those teens who perceived that love and caring are lacking within their family members, suffering from high domestic violence, and with decrease of family bounding and tolerance. Regarding substance abuse the present study congruent with <sup>(17)</sup> who reported that depressive symptoms were positively associated with substance abuse and <sup>(18)</sup> reported that substance use may occur in attempts to improve mood in depressed subjects, however it is possible that chronic substance use leads to neurobiological changes that increase vulnerability for depression.

Another problem that contributing to depression is suicide, the finding study revealed that teenagers with high mainly depression attempted to suicide these finding supported by <sup>(19)</sup> who stressed that depression was associated with marked suicide thoughts ,plans and attempts. On the other hand escape from home was highly associated with depression this congruent with <sup>(20)</sup> also concluded that escaping from home due to family violence, failure at school and financials problems. It is important to identify the risk factors associated with depression among adolescents, as this can help control and prevent depression. The present study revealed that, Absence of Love at home, discarded from my family, poor inter-parental relationship and troubles at school . All the finding related to family problems and its correlation to depression .In this respect <sup>(21)</sup> documented that, social and family support can reduce the risk of depression in teens.

## **V. Conclusion**

This study concluded that depression is prevalent in teenagers. Breakdown of family relationships and troubles at school are associated risk factors for development of teenagers' depression.

## **VI. Recommendation**

This study recommended that Further studies are needed to check if early detection of depressive disorders in adolescents may affect the course of the depressive illness, and its complications. Effective interventions must involve activation of the role of psychosocial counselor in schools, promoting complimentary relation between parents and adolescent. further studies about teen's depression related risk factors. Conducted in service training for school nurses and teachers about teen's depression to assess early signs of depression. Awareness programs for families about teens depressions.

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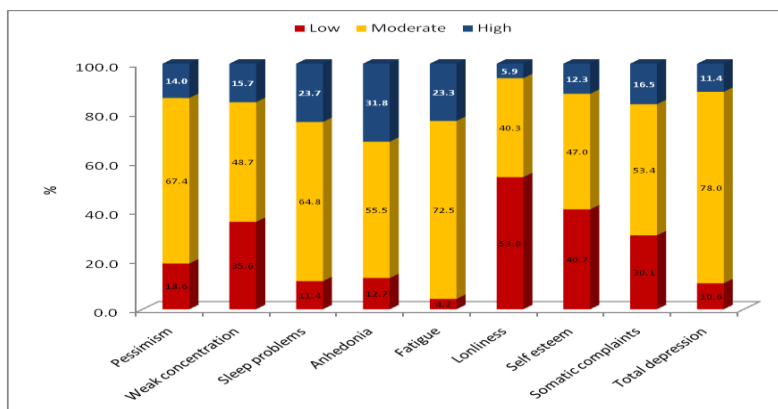
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**Table 1: Socio-demographic characteristics of the studied teenagers**

Items	Number (236)	%
<b>Age</b>	16.0 ± 1.25	
Mean ± SD		
<b>Gender</b>		
Male	125	53.0
Female	111	47.0
<b>Academic year</b>		
1 <sup>st</sup> secondary	90	38.1
2 <sup>nd</sup> secondary	79	33.5
3 <sup>rd</sup> secondary	67	28.4
<b>Father education</b>		
Illiterate	5	2.1
Basic	11	4.7
Secondary	66	28.0
University	124	52.5
After university	30	12.7
<b>Mother education</b>		
Illiterate	6	2.5
Basic	10	4.2
Secondary	70	29.7
University	121	51.3
After university	29	12.3
<b>Family income</b>		
Enough	200	84.7
Not enough	11	4.7
No constant income	25	10.6



Figure(1): Distribution of the studied teenagers by their depression levels

Table (2) Relation between total score of depression among teenagers and parents relationship

	Yes		No		p-value
	Mean± SD	No. (%)	Mean± SD	No. (%)	
<b>Type of relationship with him / her father</b>					
Communicate with him / her	71.95±11.65	175(74.2)	81.48±11.93	61(25.8)	<0.001*
Satisfy him / her needs	73.08±12.12	201(85.2)	82.06±11.51	35(14.8)	<0.001*
Has no role in him / her life	84.31±15.05	29(12.3)	73.02±11.38	207(87.7)	<0.001*
Very aggressive with him / her	80.76±12.29	51(21.6)	72.66±11.91	185(78.4)	<0.001*
Not allow him / her to go out	80.94±14.75	34(14.4)	73.32±11.70	202(85.6)	0.001*
Not allow him / her to has friends	78.41±13.69	32(13.6)	73.78±12.13	204(86.4)	0.049*
<b>Type of relationship with him / her mother</b>					
Communicate with him / her	73.64±11.89	209(88.6)	80.37±14.33	27(11.4)	0.008*
Satisfy him / her needs	73.96±12.18	225(95.3)	83.55±14.47	11(4.7)	0.012*
Has no role in him / her life	81.0±13.69	18(7.6)	73.87±12.19	218(92.4)	0.019*
Very aggressive with him / her	79.43±12.01	30(12.7)	73.68±12.34	206(87.3)	0.017*
Not allow him / her to go out	73.84±15.0	25(10.6)	74.48±12.12	211(89.4)	0.809
Not allow him / her to has friends	76.44±13.31	16(6.8)	74.26±12.38	220(93.2)	0.500

p:p value for Student t-test

\* Statistically significant at p ≤ 0.05

Table (3) Relation between total score of depression and teenagers school problems

	Yes		No		p-value
	Mean± SD	No. (%)	Mean± SD	No. (%)	
<b>Teenagers studying problems</b>	76.38±11.36	142(60.2)	71.48±13.38	94(39.8)	0.004*
<b>Types of school problem (n = 142)</b>					
Difficulty to deal with teacher	75.90±10.35	84(35.6)	76.71±12.99	58(24.6)	0.696
Rigid roles in school	76.59±11.14	92(64.8)	75.58±12.13	50(35.2)	0.619
Not understand from teacher	78.04±10.79	78(54.9)	74.03±11.95	64(54.1)	0.038*
Not like school	78.89±12.12	73(51.8)	73.0±9.72	69(48.2)	0.002*
Too much subjects	77.60±11.51	114(80.3)	71.04±9.57	28(19.7)	0.007*
Feel lonely at school	83.52±11.59	23(16.2)	74.2±10.94	119(83.8)	0.001*

p:p value for Student t-test

\* Statistically significant at p ≤ 0.05

**Table (4) Relationship between total score of depression and Teenagers social and psychological problems**

	Yes		No		p-value
	Mean± SD	No. (%)	Mean± SD	No. (%)	
<b>Teenagers social problems</b>					
Love and understanding within family	72.11±11.32	193(81.8)	84.74±12.0	43(18.2)	<0.001*
Showing care only in crisis	81.79±13.79	38(16.1)	72.99±11.66	198(83.9)	<0.001*
lack of affection	82.59±13.01	46(19.5)	72.43±11.46	190(80.5)	<0.001*
lack of family bonding	80.66±11.09	65(27.5)	72.04±12.10	171(72.5)	<0.001*
Domestic violence	83.53±10.91	49(20.8)	72.02±11.69	187(79.2)	<0.001*
Big problems in family	83.66±11.17	50(21.2)	71.92±11.56	186(78.8)	<0.001*
Parents conflict	79.39±12.34	46(19.5)	72.21±12.17	190(80.5)	0.002*
Family conflict	79.86±12.97	71(30.1)	72.07±11.44	165(69.9)	<0.001*
<b>Teenagers psychological problems</b>					
Substance abuse	80.78±13.54	41(17.4)	73.07±11.78	195(82.6)	<0.001*
Suicide attempted	83.54±11.28	63(26.7)	71.09±11.10	173(73.3)	<0.001*
Attempt to escape from home	81.24±12.56	78(33.1)	71.04±10.91	158(66.9)	<0.001*
Feeling loneliness	81.81±11.54	99(41.9)	69.07±10.10	137(58.1)	<0.001*

p:p value for Student t-test

\* Statistical significant at P< 0.05

**Table(5)Stepwise multiple logistic regression model for factors affecting depression among adolescents**

Risk factor	B	S.E.	P	OR	95.0% C.I for OR	
					Lower	Upper
Absence of Love at home	0.74	0.65	0.047*	2.10	0.58	7.54
No one care about others	0.85	0.54	0.041*	2.30	1.50	6.70
Feel I am discarded from my family	0.95	0.59	0.042*	2.60	1.50	8.20
Not permitted to go out of home	1.48	0.65	0.023*	4.40	2.10	15.70
Not allowed to have friends by father	1.09	0.79	0.038*	2.98	1.60	13.89
Relation with mother don't satisfy my demands	1.85	0.94	0.049*	6.33	1.01	39.59
Not allowed to have friends by mother	-1.49	0.87	0.029*	0.23	0.04	1.25
Have troubles at school	0.63	0.48	0.044*	1.88	0.74	4.78
<b>Model significance</b>	<b>0.039*</b>					
<b>Model classification accuracy (validation)</b>	<b>83.9%</b>					

B: regression coefficient

SE: Standard error

OR: Odds ratio

C.I: Confidence interval

**Table ( 6 ) : Correlation between total score of depression and teenager demographic data**

	Total score of depression	
	r <sub>s</sub>	P
Age	-0.070	0.282
Academic year	-0.223*	0.001
Father education	-0.031	0.640
Mother education	-0.181*	0.005
No. of brother in family	0.115	0.077
Your order is	0.037	0.576
Family income	0.116	0.074

rho (p): Spearman coefficient

\*Statistically significant at p ≤ 0.05