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Research Article

PREVALENCE OF DEPRESSION SELF-STIGMA AMONG HIGH SCHOOL STUDENTS IN SABYA CITY, 2019: CROSS- SECTIONAL STUDY

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Abstract:

Background: Self-stigma is one of the three main barriers to treatment and receiving the needed care for people with depression. Additionally, depressed people who have self-stigma have a low expectation for recovery, avoid seeking help and delay or stop treatment early.

Objectives: To assess depression literacy, depression self-stigma and relationship between them among secondary school students.

Methods: A cross sectional study was conducted in Sabya city, in Jazan among a representative sample of secondary school students. An interview questionnaire was used for data collection. The questionnaire included demographic characteristics of the participants, validated Arabic version of Self-Stigma of Depression Scale and the validated Arabic validated version of the Depression Literacy Questionnaire.

Results: Depression literacy is relatively low, correlated negatively with depression personal stigma and positively with perceived depression stigma among secondary school students. Female students were more knowledgeable about depression compared to males. Students` age was negatively correlate with depression stigma scale and score of personal subscale of depression stigma score was significantly high in males in correlation with females.

Keywords: Depression, stigma, self-stigma, depression literacy, stigma prevalence.

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INTRODUCTION:

Depression is one of the commonest psychological disorders [1]; In Eastern Mediterranean Region, it affects 16% of population [2]. It affects the patient's quality of life, leading to a major disability in the community [1]. Self-stigma is one of the 3 main barriers to treatment and receiving necessary help [3]. it leads to losing hope in recovery, losing help seeking behavior and decrease treatment duration [4]. The levels of stigma in mental illnesses are varied from diagnosis to another [5], which brings the need to assess the stigma related to each mental illness separately.

There are only 6-9% of children and adolescents aged from 6-17 years old who uses mental health services. In the same age group, 80% of the people who are defined to be in need of mental health service did not receive the care [6]. Self-stigma is a factor shown to affect the use of health care services [5][7]. The majority of the studies that have been conducted in self-stigma were focused on adults with limited studies conducted on adolescence [8] who are target population in this study. Although some studies have focused on the stigma associated with specific disorders [9][10], most researchers have concentrated on mental health in general [5]. This increases the demand to investigate self-stigma as a diagnosis separately. Depression was selected considering its prevalence. Up to our knowledge and literature search, we couldn't find researches on depression self-stigma prevalence in this age group in Sabya city.

In Australia, 2010, the magnitude and predictors of personal and perceived depression stigma was investigated among adolescents through cross-sectional study using Depression Stigma Scale (DSS). In 1,375 subjects the personal stigma levels in adolescents (their ages ranged from 12 to 17 years) $M=14.48$, $SD=5.28$ is significantly less than the perceived stigma levels $M=20.53$, $SD=5.06$. Personal stigma levels were higher in male ($p<.001$), in people who are living with their parents ($p=0.02$), in people who never had depression ($p<0.001$) and no history of depression in their parents ($p<0.01$). The females have higher levels of perceived stigma ($p=0.02$) and in people who have history of parental depression ($p=0.05$) [11].

Seeking help and use of mental health services is a major concern for people with mental illness; stigma can be a barrier for using of available services. In Finland, 2010, the personal stigma and the use of mental health services in depressed population was measured through a cross-sectional study, the

questionnaire was sent by e-mail to 10,000 persons aged 15-80, the response rate was 50.6%. The instrument Composite International Diagnostic Interview Short Form (CIDI-SF) was used to identify people with depression and its severity. 558 (10.9%) was identified as cases of major depressive disorder (MDD), with 221(39.6%) of them had use health care services for mental problem in the past 12 months [3].

The self-stigma of depressive disorders was assessed among outpatients by a cross-sectional study in Taiwan, 2005 using the Taiwanese version of Self-Stigma Assessment Scale (SSAS) in 3 general hospitals. In a total of 247 patients, 66% with major depressive disorder, 19% with dysthymic disorder and 15% with depressive disorder not otherwise specified. Their mean age was 43.9 ± 14.3 . The authors found that total of 62 patient (25%) had a higher level of self-stigma, mean score of 26.3 ± 2.5 (range, 24 to 32) [12].

Stigma has significant effect on different life aspects, and this effect was studied In California, United States 2003, using a cross-sectional study conducted to assess stigma affecting employment, health insurance and friendship among primary clinic patients from 46 united states primary care clinics. Among 1187 depressed patients, 67% had a negative effect toward employment caused by depression related stigma, 59% toward health insurance and 24% toward friendship. Depression related stigma affecting employment were reported less in male patients and in younger patients [13].

Despite the availability of an effective depression treatment, inadequate treatment has been a concern. Patient barriers are a factor in successful treatment. So, the effect of stigma on treatment discontinuation was studied by two stage sampling technique in psychiatric outpatient clinic in united states, New York, 2001. Patients were assessed with DSM-IV Axis I Disorder to establish diagnosis. The study resulted in that the perceived stigma was higher in younger adults than the other group ($t=2.00$, $df=89$, $p=0.05$). 15 patients discontinue the treatment (and none sought care elsewhere), in the follow up period and 7 patients (24%) from elderly group and 8 (13%) from the younger group. In older patients, the greater likelihood of drug discontinuation was associated with greater perceived stigma [14].

METHODOLOGY AND MATERIAL:

The study was conducted in Sabya city, in Jazan region, that is located in the southwestern part of Saudi Arabia, along the side of the Red Sea. A cross sectional study design was employed for this study. The study

was conducted within the duration of one academic year (2019 – 2020). Secondary school students in Sabya city. The minimum sample size for this study has been decided according to Dahiru *et al.* (2006) [15]. After adding 10% to the nonresponse rate, the sample size approximately 422. Stratified random sample was adopted.

Descriptive statistics of collected data were performed using standard deviation, frequency and percentage for categorical data and mean, median interquartile range (IQR) for numerical data depending on their distribution.

Shapiro-Wilk test was used to assess normality of data. In case of normal distribution, student's t-test was used to compare two groups and one-way analysis of variance test (ANOVA) were used to compare more than two groups, while for abnormally distributed data, comparing two groups or more than two groups Mann-Whitney and Kruskal-Wallis tests were used, respectively. In data analysis the Statistical Package for the Social Sciences (SPSS) version 25 was used. P-

values <0.05 was considered as a cut-off value for statistical significance.

An ethical approval (NO. 1927) from the Jazan Hospital Institutional Review Board (H-10-Z-068) was obtained. A written consent from participants in the research was granted and consent was issued by selected schools' managers. The students were approached with all the needed information before been given the written consent and they were informed that they had the right to refuse to participate at any time without any penalty.

RESULTS AND DISCUSSION:

415 secondary school students aged 15 to 19 (16.9±1.1 years) were included in the study. Males represent 51.8% of them. The majority of them (90.1%) were Saudis and 45.3% were enrolled in the first grade. About two-thirds of them (66.2%) got "excellent" scholastic achievement level. Table 1 shows the response of the participants to the statements of personal subscale of depression stigma scale:

Table 1 shows the response of the participants to the statements of personal subscale of depression stigma scale:

Strongly disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly Agree N (%)	
People with depression could snap out of it if they wanted.	24 (5.8)	33 (8.0)	52 (12.5)	152 (36.6)	154 (37.1)
Depression is not a real medical illness.	63 (15.2)	76 (18.3)	119 (28.7)	91 (21.9)	66 (15.9)
People with depression are dangerous.	65 (15.7)	124 (29.8)	92 (22.2)	88 (21.2)	46 (11.1)
It is best to avoid people with depression so you don't become depressed yourself.	111 (26.7)	94 (22.7)	69 (16.6)	73 (17.6)	68 (16.4)
People with depression are unpredictable.	36 (8.7)	56 (13.5)	104 (25.1)	130 (31.3)	89 (21.4)
If I had depression, I would not tell anyone.	78 (18.8)	83 (20.0)	91 (21.9)	70 (16.9)	93 (22.4)
I would not employ someone if I knew they had been depressed	110 (26.4)	103 (24.8)	94 (22.7)	60 (14.5)	48 (11.6)
I would not vote for a politician if I knew they had been depressed.	133 (32.1)	101 (24.3)	78 (18.8)	50 (12.0)	53 (12.8)
Depression is a sign of personal weakness.	70	78	77	109	81

Table 2 shows the response of the participants to the statements of perceived subscale of depression stigma scale:

Strongly disagree N (%)	Disagree N (%)	Neutral N (%)	Agree N (%)	Strongly agree N (%)
Most people believe that people with depression 19 could snap out of it if they wanted. (4.6)	24 (5.8)	63 (15.2)	142 (34.2)	167 (40.2)
Most people believe that depression is a sign of 44 personal weakness. (10.6)	57 (13.7)	71 (17.1)	144 (34.7)	99 (23.9)
Most people believe that depression is not a 30 medical illness. (7.2)	59 (14.2)	109 (26.3)	119 (28.7)	98 (23.6)
Most people believe that people with depression 46 are dangerous. (11.1)	76 (18.3)	105 (25.3)	105 (25.3)	83 (20.0)
Most people believe that it is best to avoid 78 people with depression so that you don't become depressed (18.8) yourself.	64 (15.4)	74 (17.8)	104 (25.1)	95 (22.9)
Most people believe that people with depression 34 are unpredictable. (8.2)	57 (13.7)	112 (27.0)	119 (28.7)	93 (22.4)
If they had depression, most people would not 37 tell anyone. (8.9)	63 (15.2)	76 (18.3)	125 (30.1)	114 (27.5)
Most people would not employ someone they 41 knew had been depressed. (9.9)	81 (19.5)	97 (23.3)	116 (28.0)	80 (19.3)
Most people would not vote for a politician they 61 knew had been depressed. (14.7)	74 (17.8)	86 (20.7)	100 (24.1)	94 (22.7)

Table 3 shows the association between students` socio-demographics and perceived subscale of depression stigma score:

Perceived subscale depression stigma	Median	IQR	Mean rank	p-value
Gender				
Male (n=215)	22	18-27	212.76	
Female (n=200)	21	17-26	202.89	0.401*
Nationality				
Saudi (n=374)	22	17-27	211.60	
Non-Saudi (n=41)	19	15-25	175.16	0.064*
School grade				
First (n=188)	21	16.25-27	203.70	
Second (n=92)	22	18-26	214.81	
Third (n=135)	22	17-26	209.34	0.757
Scholastic achievement level				
Excellent (n=275)	22	18-26	214.50	
Very good (n=103)	21	15-27	192.21	
Good (n=33)	22	17.5-25.5	211.0	
Fair (n=4)	19	15.75-21.5	143.0	0.284
* Mann-Whitney test				

There was no significant correlation between students` age and the total Depression Literacy Scale score (Spearman`s correlation coefficient (r)= -0.042), p=0.389. Female students were more knowledgeable about depression compared to males (mean ranks of the DLSS were 232.82 and 184.92, respectively), p<0.001. DLSS was significantly increased with increasing in the grade level of the students (mean rank was 222.70 among students who got “excellent” and 68.13 among those who got “fair”), p=0.001. Students` nationality and school year were not significantly associated with the DLSS.

The perceived subscale of depression stigma score ranged between 0 and 36 with a mean \pm SD of 21.8 \pm 6.7 and Median (IQR) of 22 (17.- 26). It was abnormally distributed as evidenced by significant Shapiro-Wilk test, p=0.007. There was no significant correlation between students` ages and the perceived subscale of depression stigma scale (Spearman`s correlation coefficient (r)= 0.093), p=0.060.

A significant negative correlation was found between the depression literacy score and the personal subscale of depression stigma score, as shown in figure 1:

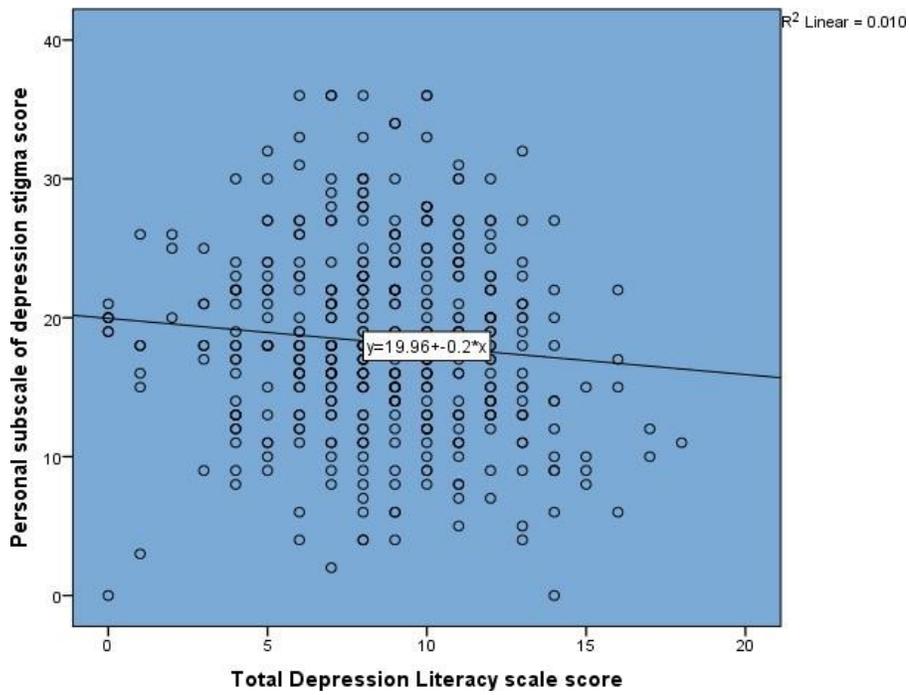


Figure 1 Correlation between depression literacy scale and personal subscale of depression stigma score among the students

In addition, figure 2 shows the Correlation between depression literacy scale and perceived subscale of depression stigma score among the students:

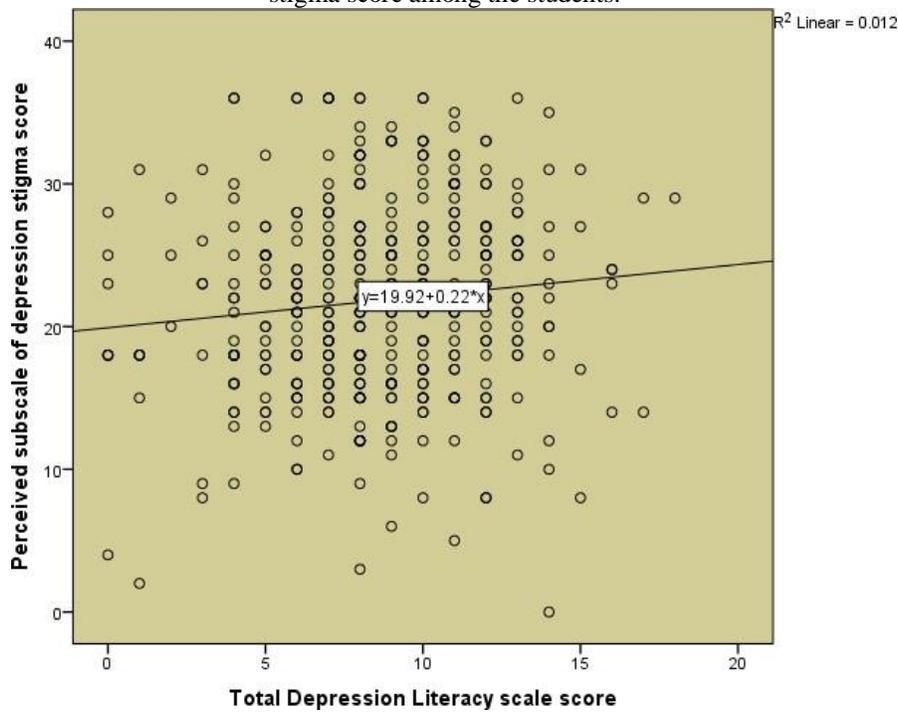


Figure 2 Correlation between depression literacy scale and perceived subscale of depression stigma score among the students

Stigmatizing beliefs towards depression are relatively common, particularly among adolescents and can result in feelings of avoidance, anger or problems towards persons with depression [16][17]. Also, it has a negative effect toward employment, health insurance and friendship [13], as well as it has been associated with treatment discontinuation [14]. At the same time, it has been documented that educational intervention is very essential for depression literacy [18], as a brief mental health literacy could improve knowledge and consequently reduce stigma towards depressed persons [19]. Therefore, the present study was carried out mainly to assess the depression literacy, depression self-stigma and the relation between them among secondary school students in Jazan, Saudi Arabia.

In the present study, the personal subscale of depression stigma score ranged between 0 and 36 with a mean±SD of 18.2±6.8. In a study carried out in Australia among adolescents aged between 12 and 17 years [11], the score of personal stigma was 14.48±5.28 using the same tool applied in the present study. However, in Taiwan, using the Taiwanese version of Self-Stigma Assessment Scale, the mean score of self-stigma ranged between 24 and 32 with a mean±SD of 26.3±2.5 [12]. Comparison with the finding of the present study is not practical as a result of using different tools in assessing depression self-stigma. However, it looks higher in Taiwan's study. Cultural and background profile of the participants could also explain the variation of findings between different studies.

In the current study, the score of the perceived subscale of depression stigma ranged between 0 and 36 with a mean±SD of 21.8±6.7. This score is comparable to that reported among adolescents in Australia (20.53± 5.06) [11]. No gender difference was observed regarding the perceived subscale of depression stigma score in the present study. However, in another study carried out in Australia [11], perceived depression stigma was more reported among females.

Regarding the correlation between depression literacy and stigma, the study revealed a negative correlation between the depression literacy score and the personal subscale of depression stigma score. This finding is in accordance with numerous studies as reported by Griffiths KM, et al (2014) [20] and Corrigan et al (2012) [21] in their meta-analysis of randomized controlled trials. Therefore, educational interventions for depression literacy could consistently reduce the personal stigma for depression [20]. This also was

confirmed in a local study carried out by Darraj H, et al (2018) among secondary school students [22].

Reducing the personal stigma through health education would help patients with depression to seek help and use the available mental health services as it has been observed that personal stigma can represent a barrier for that as seen in a study carried out in Finland (2010), only 39.6% of patients with depression had used health care services for mental problem as a result of personal stigma [3].

Starting these educational interventions for depression as well as other mental disorders should be at the period of adolescence as it has been evidenced that the peak period for the onset of majority of mental diseases, including depression occurs below the age of 18 years [23]. Al-Krenawi A (2005) [24] recommended further intervention and research in mental health field to increase the awareness about these problems in the Arab world.

On the other hand, the current study revealed a positive correlation between the depression literacy score and the perceived subscale of depression stigma score. Griffiths KM, et al (2014) [20] reported in their systematic review and meta-analysis that studies did not prove a positive impact of educational intervention and reduction of perceived stigma. This finding in the present study is not surprising as the perceived stigma is an accurate reflection of the community's actual levels of stigma, therefore with increasing knowledge, this type of stigma increased [20].

The present study is among very limited studies exploring an important issue in our community where the stigma attitude prevails particularly regarding mental diseases. However, the study has some limitations. The study was carried out among secondary school students, so it does not reflect the situation among the general community. Moreover, it was a cross-sectional study with its inherited limitations.

CONCLUSION:

Depression literacy is relatively low among secondary school students in Sabya city. Female students and those with higher scholastic achievement level were more knowledgeable about depression compared to their counterparts. Personal depression stigma was negatively correlated with student's age. It was higher among males and higher-grade students compared to others. Personal depression stigma correlated negatively with depression literacy whereas perceived depression stigma correlated positively with

depression literacy.

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