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Satisfaction with life, Self-esteem, gender and marital status as predictors of depressive symptoms among United Arab Emirates college students

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The purpose of this study was to investigate the predictive role of life satisfaction, self-esteem, gender and marital status on depressive symptoms. The sample consists of 547 (315 female; 232 males) undergraduate students from Al Ain university of Science and Technology in United Arab Emirates. Depressive symptoms were measured by the Centre for Epidemiologic Scale (CES-D) (Radloff, 1977) while life satisfaction was measured by satisfaction with life Scale (SWLS) (Diener et al., 1985) and Self-Esteem Scale (SES) (Rosenberg, 1965) was used to measure self-esteem. T-test analysis, Pearson correlation, and multiple regression analysis were employed. The findings showed a great ratio of depressive symptoms among UAE college students. Female students reported higher level of depressive symptoms than males. Also single students obtained higher depression than married. The findings showed that lower life satisfaction and lower self-esteem were associated with high levels of depressive symptoms. However, life satisfaction emerged as the most significant predictor of depressive symptoms accounting for 32.6% of the variance, self-esteem, gender and marital status each accounted for an additional 6.5% of the variance in depressive symptoms. All three predictors explained 38.2% of the total variance. The implications and limitations are reviewed as are the suggestions for future research.

Key words: Depressive symptoms, life satisfaction, self-esteem, gender, marital status, college students.

INTRODUCTION

Depression, a type mood disorder, is the most prevalent mental health problem among people. Depression was described as a serious public health because of its relatively high prevalence and the significant impairs that it causes. Noble (2005) reported that the prevalence of depression ranges between 10 and 21% in population depending on cultural situations, with peak occurrence between the ages of 20 to 45 years.

Depressive symptoms and college students

University students are often subjected to different kinds of stressors, such as transition from home to college,

face new academic and financial pressures, and develop different support systems. Such factors place them at a high risk of depression (Dyson and Renk, 2006).

In addition to the high rates of depression among college students, depression during this period is associated with impaired social functioning, decreased energy and fatigue, sleep disturbances school difficulties, and future morbidity (Wells et al., 2001). Vredenburg et al. (1988) classified college student depression as a serious problem with 75% of depressed students being depressed for more than three months, and half of these individuals have contemplated suicide.

In Taiwan, Chang et al. (2011) findings revealed that

37.62% of the students were suffering from depression. Aside from these statistics regarding the prevalence of depression among college students, few studies have tackled it in some Arabic countries. For example, Al-Busaidi et al. (2011) studied the prevalence of depressive symptoms and its association with gender, academic year, and college among university students in Oman. Their findings indicated that nearly a quarter of the participants (27.7%) had a depression score of more than 11. Sixty six (27.2%) of the male students had a depression score above 11, of which (21%) had a score of more than 20 (severe depression). As for female students, (30.7%) had a depression score more than 11 of which 26.9% had a score of more than 20. However, the difference between male and female students was not statistically significant. Another study by Zawawi and Hamaideh (2009) on 492 college students in Jordan revealed that 47.8 and 24.4% of the students suffered from major depression and mild-moderate depression, respectively. In Egypt, a study conducted by Ibrahim et al. (2012) on undergraduate students at Assiut University, revealed that 73% of the students had symptoms scored above the threshold of moderate depression.

In the United Arab Emirates, depression may be highly prevalent among young adults. The United Arab Emirate's society is very conservative with strong family ties. A significant number of college students are married while at college. Young adults are expected to have children within the first two years. These things may create stress, especially for females, as young women attempt to balance childcare, college, domestic, familial, and marital duties simultaneously.

According to the findings of a few studies in this area in the UAE, mental health disorders may be highly prevalent among college students and adults. Abou-Saleh et al. (2001) conducted a study on a sample which included 1394 adults from Al Ain community in the UAE. They found that the prevalence of mental disorder rate was 8.2% and the rate of mental distress was 18.9%. In a cross-sectional study conducted in an international Medical College at the city of Dubai in the UAE, the participants were 103 pre-clinical medical students. The major findings of the study were that 23.3% of the sample was in moderate depression range, and none of the students had severe depression (Ahmadi et al., 2008).

Life satisfaction

Life satisfaction has been defined by Diener et al. (1999) as a person's subjective, global evaluation of the positivity of her/his life as a whole or with specific life domains. Depression has a negative impact on life satisfaction and well-being and seems to be highly associated with life satisfaction among college students (Bayati et al., 2009). Studies have supported the claims that lower life satisfaction has been related to high depressive symptoms (Paschali and Tsitsas, 2010).

In an early study, *Sunders and Roy (1999)* investigated the relationship between depression, life satisfaction, and social interest. The result showed that depression was negatively correlated with life satisfaction. However, no difference was observed in the level of depression by gender. Similarly, *Zawai and Hamaideh (2009)* conducted a study with a sample of Jordanian college students ($N = 492$). The study outcomes showed a great ratio of depression symptoms among the sample, and a negative significant relationship between satisfaction with life and depressive symptoms. In a study by *Wardle et al. (2004)* which was conducted in a sample ($N = 3571$) of university students from 5 Western European countries, the findings indicated that depression and low life satisfaction were associated.

Self-esteem

Self-esteem has been defined as a global evaluative attitude toward the self (*Rosenberg, 1965*). Many researchers have concluded that there is an association between self-esteem and behavior. For instance, having a high self-esteem has many positive effects especially among college students.

Researchers have investigated the degree to which self-esteem might be related to several different psychological well-being. For example, *Rey et al. (2011)* examined the relationship between perceived emotional intelligence, self-esteem, and life satisfaction in a sample of 316 Spanish adolescents. The findings indicated that self-esteem correlated significantly and positively with life satisfaction. Similarly, *Piccolo et al. (2005)* found a positive significant correlation between life satisfaction and self-esteem ($r = 0.53$). In addition, *Li et al. (2010)* in their study on Chinese college students found that self-esteem significantly correlated with life satisfaction ($r = 0.45$, $P < 0.01$). This relationship was supported by the findings of *Chen et al. (2006)* who found that self-esteem was positively associated with life satisfaction. Other studies suggested that self-esteem is an important predictor of happiness and that higher levels of self-esteem predict lower levels of depression (*Furnham and Cheng, 2000*). These suggestions were supported by the results of *Diener and Diener (1995)*'s study. Their results revealed that self-esteem was a strong predictor of life satisfaction.

Demographic variables

Past research showed that demographic variables are associated with college students' depressive symptoms. Being female, for example, is found to be more highly related to depression than being a male. This claim was supported by numerous studies (*Khawaja and Duncanson, 2008*). However, the most consistent findings in the literature show that females are more likely than males to engage in depressive symptoms, some studies

indicate that male students are more likely than females to engage in depressive symptoms (Butler and Nolen-Hoeksema, 1994), other studies show that both genders are equally likely to engage in depressive symptoms (Al-Busaedi et al., 2010; Paschali and Tsitsas, 2010).

Regarding marital status, previous studies found that individuals who are single are often believed to be in great risk of depressive symptoms than those who are married (Guarnaccia and Worobey, 1991; Roberts and Roberts, 1982). Guarnaccia and Worobey, (1991) investigated the effects of marital status on levels of depressive symptoms. Their findings revealed that unmarried women reported higher levels of depressive symptoms than married women. Similar results were found in a study conducted by Roberta and Roberts (1982). Recently, Talaei et al. (2009) conducted a research on 1300 Iranian college students to investigate the correlation between depression, self-esteem, and support among Iranian college students. Their findings showed that single students experienced more depression than the married. As can be understood from previous literature, the relationship between depressive symptoms and demographic variables is unclear.

Significance of the study

Since college students encounter a number of various daily life stressors placing them at high risk of developing negative effect such as depressed mood (Yang and Wang, 2009), exploring the factors that contribute to depressive symptoms may present information for the college counselors to develop strategies to assist those student groups who may be at a great risk of developing symptoms of depression. Also, it is expected that this study will make a contribution to the area of college students' mental health or well being. Firstly, this study will contribute to provide a more complete understanding of the susceptibility to depressive symptoms among young adults. Secondly, this study is the first attempt to investigate these variables among UAE college students. One implication of the present study is to call universities' attention to the mental health needs of college students, based on the background information produced by the study.

Finally, this study advances knowledge of college students' mental health and seeks to examine some variables (life satisfaction, self-esteem, gender and marital status) that predict depression occurrence among college students. Particularly, previous studies showed that life satisfaction and self-esteem are alarm indicators to depression and could help in early intervention prevention programs.

Study hypotheses

The main purpose of the current study was to understand factors that contribute to the depressive symptoms of

UAE college students by examining how variables such as, life satisfaction, self-esteem, and selected demographics predict depressive symptoms. It is expected that a better understanding of the interplay among these variables will have implications for the improved identification and treatment of college students at risk for depressive symptoms.

Building upon the past research of demographics and psychological predictors of depressive symptoms with college students, it is hypothesized that: (1) UAE college students have high rates of depressive symptoms as measured by CES-D scale; (2) Higher levels of depressive symptoms would be found for females and single students; (3) A significant negative association between depressive symptoms and both life satisfaction, and self-esteem; (4) Life satisfaction is significantly and positively correlated with self-esteem; (5) Satisfaction with life, self-esteem, gender and marital status collectively would account for a significant proportion of variance in students' depressive symptoms.

METHODOLOGY

Sample

The total number of undergraduates who participated in this study was 547 students who were selected from the population of Al Ain University of Science and Technology (AU) in the United Arab Emirates. The mean age of the sample was 22.1 years ranging from 18 to 39 (SD = 2.81). Of the total sample, 315 (57.6%) were female students and 232 (42.4%) were males. Of these, 430 (78.6%) were single students and 117 (21.4%) were married. Among the sample as a whole, 201 (36.7%) were freshmen, 157 (28.7%) were sophomores, 104 (19.1%) were juniors, and 85 (15.5%) were seniors.

Measures

Three instruments: The Centre for Epidemiologic Scale (CES-D); Self-Esteem Scale (SES); and Satisfaction with Life Scale (SWLS), in addition to the demographic sheet, were used to collect data in this study. For the purpose of this study, by using the 'forward-backward' procedure, the English version of the three instruments was translated into Arabic by a bilingual expert, and then another bilingual expert translated the Arabic version into English without accessing the original version. A third bilingual faculty member compared the translated Arabic and the translated English versions and corrected any incongruence in the translation. No significant variation between the two was detected. These instruments have been translated into many languages, and for many of these translations, validation studies confirm the internationally applicable nature of these tools. These instruments are in the public domain. Therefore, they may be used without copyright permission.

The Centre for Epidemiologic Scale (CES-D) (Radloff, 1977) was used to measure levels of depressive symptoms experienced in the past week. (CES-D) includes 20 items comprising six scales reflecting major dimensions of depression mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance. The scale addresses four factors: Depressed affect, somatic symptoms, reversed positive effect, and interpersonal difficulties.

Response categories indicate the frequency of occurrence of

each item, and are scored on a 4-point scale ranging from 0 (rarely or none of the time) to 3 (most or all of the time). Items include: I felt that I was just as good as other people, and I felt I could not get going. Scores for items 4, 8, 12, and 16 are reversed before summing all items to yield a total score. Scoring range is from 0 to 60, with higher scores indicating more depressive symptoms on this scale (Radloff, 1977). A score of 22 or higher indicates probable Major Depression. A score between 15 and 21 indicates the need for more in-depth assessment and treatment for mild to moderate depression. A score of 14 or less is not indicative of depression.

The CES-D has been shown to be a reliable measure for assessing the number, type, and duration of depressive symptoms across racial, gender, and age categories. High internal consistency has been reported with Cronbach's alpha coefficients ranging from 0.85 to 0.90 across studies (Radloff, 1977). Construct validity by clinical and self-report criteria, as well as substantial evidence of construct validity, have been demonstrated (Radloff, 1977). In the current study, Cronbach's alpha for CES-D was 0.86 and the two-week test re-test reliability coefficient was 0.88.

Satisfaction with Life Scale (SWLS; Diener et al., 1985) was used to measure life satisfaction. The SWLS is a 5-item measure of subjective well-being using a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree), with sample items including, in most ways *my life is close to my ideal and I am satisfied with my life*. A total score is calculated by summing the individual responses to the 5 items. Scores on the total scale ranged from 5 to 35 with higher scores indicating greater life satisfaction. This is the most widely used measure of life satisfaction to date.

Pavot et al. (1991) reported that the SWLS items are global rather than specific in nature, allowing respondents to weight domains of their lives in terms of their own values, in arriving at a global judgment of life satisfaction.

Internal reliability of the scale has been estimated. Diener et al. (1985) reported a 2-month test-retest correlation coefficient of 0.82 and an alpha coefficient of 0.87 for a sample of 167 undergraduates from the University of Illinois. For the current study, the estimated internal consistency reliability coefficient was 0.85. Additionally, the 2-weeks test-retest reliability coefficient for this scale was 0.79.

Self-Esteem Scale (SES, Rosenberg, 1965) was used to assess participants' self-esteem. The SES is one of the most widely used and well-validated self report measures of global self-esteem. The scale includes 10 items that are rated on a 4-point Likert-type response format from 1 (strongly disagree) to 4 (strongly agree). A sample item is "On the whole, I am satisfied with myself". Five of the items are reverse scored. Total scores are obtained by summing all responses (after reverse-scoring) and range from 10 to 40, with high scores indicating high self-esteem. The SES has a reported reproducibility coefficient of .92 and a test retest correlation over 2 weeks of .85. Convergent validity is reported between $r = .56$ and $r = .83$ (Robinson and Shaver, 1973). The Cronbach's alpha of the scale in the present study was .86, and the 2-weeks test-retest reliability coefficient was 0.79.

Procedure

The study was carried out on the students of Al Ain University of Science and Technology in 2011. Permission for participation of students was obtained from the related chief departments. The registration department office at the AU provided the researcher with a list of all classes offered to all undergraduate students during the second semester of the academic year (2011-2012). Numbers were assigned to each class, and then 19 classes were selected using simple random sampling. Then, the researcher contacted the teacher/instructor of each selected classes to set a plan for data collection during the class lectures. There were 602 students in the randomly selected classes, and a randomized sample of college

students ($N = 547$), (response rate = 90.8%) were agreed to participate in the study. Self administered questionnaires on demographic information (gender, and marital status), CES-D, SWLS, and SES scales were given out to students.

All participants were treated in accordance with the Ethical Principles of Psychologists and Code of Conduct (APA, 1992). The majority of the participants completed the questionnaires within 25 min. Test-retest reliability data was collected on 27 participants, who comprised 20% of the sample, two weeks following the primary data collection. The test-retest reliability of the three scales were 0.89, 0.82, and 0.85 respectively.

Statistical analysis

Data were analyzed using Statistical Packages for Social Sciences (SPSS) version 17.0 software (SPSS Inc., Chicago, IL). Descriptive statistics were used to generate means, standard deviations, and frequencies for the study variables. Study hypotheses were examined by employing T-test analysis, correlations, and hierarchical regression analysis procedure. In addition, for the best Type 1 error control, continuous variables were assessed for homogeneity of variance and normality values. It was found that values of skewness and kurtosis were less than value of 1. Therefore, they are in acceptable ranges.

RESULTS

Means and standard deviations for the dependent variables (depressive symptoms, satisfaction with life, and self-esteem) scores based on independent variables (gender and marital status) are presented in Table 1.

The first research hypothesis is targeting the prevalence rate of depressive symptoms among UAE college students. Results of the scores in CES-D revealed that 111 (20.3%) and 185(33.8%) of the students endorsed of mild depression and major depression, respectively. While 251 (45.9) of the participants have no depressive symptoms. This result falls within the international rate from similar population. This study underscores the view that depressive symptoms are high in such population.

T-tests were conducted to examine the differences in depressive symptoms, satisfaction with life, and self-esteem between male and female respondents. Females obtained higher scores in depressive symptoms compared to males. Males obtained higher satisfaction with life scores and higher self-esteem scores than females. The differences in scores between males and females were significant for depressive symptoms ($t = -5.135$ $p \leq 0.001$), and self-esteem ($t = 3.473$ $p \leq 0.001$). However, the difference between males and females in scores of satisfaction with life was non-significant.

The results showed that single students obtained higher scores in depressive symptoms than married students. Married respondents obtained higher scores in satisfaction with life and self-esteem. The differences in scores between single and married respondents were significant for depressive symptoms ($t = 3.30$ $p \leq 0.001$), satisfaction with life ($t = 4.00$ $p \leq 0.001$), and self-esteem ($t = 3.30$ $p \leq 0.001$). Students who were divorced or widowed ($n = 9$) were excluded from the analysis due to their small numbers.

Table 1. Means, standard deviations, and T-test values of gender, and marital status according to depressive symptoms, life satisfaction, and self-esteem. (N = 547).

Variable		n	M	SD	T
Depressive symptoms					-5.14**
	Male	232	19.55	9.13	
	Female	315	23.74	9.63	
	Single	430	22.665	9.849	3.30**
	Married	117	19.376	8.3478	
Life satisfaction					1.93
	Male	232	23.09	7.77	
	Female	315	21.84	7.35	
	Single	430	21.707	7.5717	-4.00**
	Married	117	24.812	6.9492	
Self-esteem					3.58**
	Male	232	27.16	5.6	
	Female	315	25.27	6.77	
	Single	430	25.623	6.4856	-3.17**
	Married	117	27.709	5.6172	

** $p \leq 0.001$.

Table 2. Correlation matrix for all variables (N = 547).

Variable	1	2	3
Depressive symptoms	1	-.571**	-.491**
Life satisfaction		1	.58**
Self-esteem			1

** $p < .001$.

Results of Bivariate correlation analysis of the variables examined in the current study are displayed in Table 2. Table 2 suggested a negative correlation between depressive symptoms and satisfaction with life ($r(547) = -0.571$, $p < 0.001$) and self-esteem ($r(547) = -0.494$, $p < 0.001$). Consistent with Hypothesis 3, these inter-correlations suggest that greater depressive symptoms are related to both lower satisfaction with life and lower self-esteem. Satisfaction with life was highly correlated with self-esteem ($r(547) = 0.58$, $p < 0.001$). Respondents who reported higher satisfaction with life scored higher self-esteem. Although the independent variables were significantly related to each other, they also possessed correlation coefficients lower than .60, which indicated their utility in accounting for greater amounts of unique variance in subsequent regression analyses.

Hierarchical regression analysis was conducted to

determine the significant predictors of depressive symptoms among respondents. Based on the strength of bivariate correlations between all variables, the satisfaction with life score was the first independent variable entered of the regression analysis, followed by self-esteem in step two and demographic variables (gender and marital status) in step three. Results of the analysis of Model 1, 2 and 3 are presented in Table 3. R is significantly different from zero at the end of each step.

In Model 1, after the entry of life satisfaction, $R = 0.571$. Life satisfaction had a high significant (Beta = -0.571 , $p \leq 0.001$) unique contribution in predicting depressive symptoms among participants. About 32.6% of the variability in depressive symptoms could be predicted by knowing scores on life satisfaction, $R^2 = 0.326$, $F(1, 545) = 263.5$, $p \leq 0.001$.

In model 2, an addition of self-esteem variable in the equation results in an increase in R^2 by .034 from 0.326 to 0.36. Life satisfaction and self-esteem jointly accounted for 36% of the variance in college students' depressive symptoms. In Model 2, self-esteem was a significant unique predictor (Beta = $-.210$, $p \leq 0.001$) of depressive symptoms. $R^2 = 0.36$, $F(2, 544) = 152.88$, $p \leq 0.001$.

In model 3, gender and marital status were added to the regression equation to determine if differences in these variables were related to depressive symptoms

Table 3. Results of hierarchical regression of satisfaction with life, self-esteem, and demographic variables on depressive symptoms.

Model	Predictor	Std. β	R	Total R^2	ΔR^2	F	ΔF
1	Life satisfaction	-0.571	0.571	0.326	0.326	263.05	263.05
2	Life satisfaction	-0.429	0.6	0.36	0.034	152.88	29.14
	Self-esteem	-0.233					
3	Life satisfaction	-0.427	0.618	0.382	0.022	83.74	9.71
	Self-esteem	-0.21					
	Gender	0.146					
	Marital status	-0.025					

after differences in life satisfaction and self-esteem had been statistically accounted for. The results revealed that $R^2 = 0.382$, $F(6, 540) = 83.743$, $p \leq 0.001$. An addition of gender and marital status to regression equation improved R^2 by 0.022 from 0.36 to 0.382. Therefore, after accounted for life satisfaction and self-esteem, differences in gender and marital status contributed significantly to variance in depressive symptoms. Life satisfaction emerged as the strongest unique predictor (Beta = -0.571, $p \leq 0.001$) of depressive symptoms, followed by self-esteem (Beta = -0.233, $p \leq 0.001$), and demographic variables (Beta = 0.146, $p \leq 0.001$; -0.025, $p = -0.720$ for gender, and marital status, respectively). Regression findings showed that the overall model comprising life satisfaction, self-esteem, gender and marital status, explained 38.2% of the total variance in depressive symptoms, $R^2 = 0.388$, adjusted $R^2 = 0.381$, $F(4, 547) = 5.187$, $p < 0.001$. Satisfaction with life emerged as the strongest unique predictor of depressive symptoms, followed by self-esteem.

DISCUSSION

In general, it appears that the prevalence of depressive symptoms with the college student in this study was higher (approximately five in every 10 students) than expected in general population (just under one in every 10 persons) (Lowe et al., 2005). In addition, it seems that depressive symptoms in this cohort may not have resulted from one specific factor but rather from an accumulation of causes. Of note, the factors of gender and marital status made significant independent contributions to the prediction of depressive symptoms scores. As it was hypothesized, a depressed student was most likely to be female or single student.

This finding is in agreement with recent studies conducted in Arab countries (Al Bousaidi et al., 2011; Ibrahim et al., 2012), and in other countries (Lowe et al., 2009; Furr et al., 2001). Possible explanations for the relatively high rate of depressive symptoms seen in

college students include the stressors of the new study environment which trigger depression. Among the many potentially stressful issues, most students who join a university in the UAE leave their homes for the first time. At the same time, they are presented with new choices regarding living arrangements, interpersonal relationships, changes in learning style, and financial issues. These factors might contribute to creating stress which manifest itself in depressive symptoms. Based on this result, it can be concluded that depressive symptoms represent a serious problem among many of UAE college students. Results of this study support the claim that depressive symptoms are a global and international problem among young adults.

As it was hypothesized, female college students reported more depressive symptoms than males. This result is in consistent with previous studies in other nations (Nerdrum et al., 2006; Herrero and Meneses, 2006; Khawaja and Duncanson, 2008). This result was inconsistent with the findings of other studies which reported that male students had higher levels of depressive symptoms than female students (Talaei et al., 2009), and other findings which found that no significant differences between males and females in depressive symptoms (Al-Busaidi et al., 2011; Swanholm et al., 2009). Several possible interpretations for this gender difference in depressive symptoms have been proposed including endocrine differences between males and females, females' greater concern with body image, factors related to gender role and their negative attributional style (Lowe et al., 2005). Additionally, behavioral theories generally attribute this difference to the negative consequences of female's lower social status and power (Seligman, 1975).

It is interesting to note that the findings of this study revealed that there was a significant difference in depressive symptoms rates between single and married students. Married students reported significantly lower depressive symptoms scores than single students. This result is in accordance with those reported by previous studies (Talaei et al., 2009; Lowe et al., 2005). However,

this finding is inconsistent with the findings of Khawaja and Duncanson (2008).

A possible explanation of this result is that the married sons in UAE tradition live in the same household or in close proximity. These close proximity made it possible to easily access a social support network. The literature suggests that family social support can operate as a buffer to depressive symptoms. These findings support the claim that marriage protecting individuals against psychological distress (Galambos et al., 2006). However, it was inconsistent with the findings of Jadoon et al. (2010) which indicated that marital status did not significantly affect the prevalence of depression among college students in Pakistan.

As hypothesized, the results of the correlation analysis showed that satisfaction with life was correlated significantly and negatively with depressive symptoms. That is to say, if the satisfaction with life levels of college students increase, depressive symptoms decrease. This result is consistent across a number of different measures of both depressive symptoms and life satisfaction (Sunders and Roy, 1999). The association between depression and life satisfaction in all studies was negative, with correlations ranging from -0.34 to - 0.71. The findings of the present study suggest that satisfaction with life may play an important role in reducing depressive symptoms among college students.

Finally, the relationship between depressive symptoms and self-esteem was examined by some researchers who have reported that there is a significant negative relationship between depressive symptoms and self-esteem (Rosenberg, 1965). Similarly, the findings of this study showed that self-esteem was negatively associated with depressive symptoms.

Consequently, as a result of this study, it was found that there was a significant positive relationship between the satisfaction with life and self-esteem. This finding was supported by the work of previous researchers who found that self-esteem correlated significantly and positively with life satisfaction (Arslan et al., 2010; Chen et al., 2006). This result suggests that as the self-esteem increases, satisfaction with life also increases. It is expected to find this result since both self-esteem and life satisfaction are related with individual's positive attitudes (Arslan et al., 2010). Self-esteem is about one's evaluating himself positively, and the high level of self-esteem shows that the individual has a positive attitude about himself (Rosenberg, 1965). Life satisfaction, however, is one's general evaluating of one's live, positively. The high level of life satisfaction means that the individual is in a positive mood while evaluating his life (Diener, 2000). Since life satisfaction and self-esteem are related with one's positive feelings (Arslan et al., 2010), it is an expected result that individuals with high self-esteem have high levels of life satisfaction. The type of correlation between the variables of this study was generally consistent with previous research, demonstrating

that the features of depressed college students in the UAE are not unique, but are in fact similar to what has been observed in other countries.

Based on the findings of the present study, it can be concluded that individuals who are more satisfied with life have more self-esteem than those who are less satisfied with life. Also, students who have more satisfaction with life and more self-esteem would suffer less from depressive symptoms. All the hypotheses concerning the relationship between the variables of this study were supported.

Lastly, the results of multiple regression analysis indicated that thirty eight percent of the variation in depressive symptoms was explained by satisfaction with life, self-esteem, gender, and marital status, with the satisfaction with life accounting for the most of this variance (32.6%). Life satisfaction, self-esteem, gender and marital status are individually and collectively playing a role in predicting depressive symptoms for college students in the UAE. It appeared that satisfaction with life was the strongest predictor of depressive symptoms. Thus, the present study adds to a growing body of research that suggests that low satisfaction with life and low self-esteem are prospective risk factors for depressive symptoms (Orth et al., 2009).

The findings of this study may be valuable, not only for providing a better understanding of the association between depressive symptoms, life satisfaction, and self-esteem, but also for providing practical implications for UAE clinicians, mental health professionals, and counselors. A better understanding of the variables that are significant to the prediction of UAE college students' depressive symptoms is helpful in identifying students at-risk. Further, findings of this study, specifically the high rate of depressive symptoms among college students, hold implications for depressive symptoms interventions and treatments. The counselors and health professionals can develop counseling and treatment interventions better tailored for depressed students if satisfaction with life and self-esteem support is addressed.

Improving students' life satisfaction and enhancing their self-esteem may contribute to better counseling and treatment programs for depressed college students. Furthermore, depressive symptoms can be effectively treated with different psychological approaches. Specifically, positive psychology intervention which is found by many researchers could be useful for treating depressive symptoms. For example, Sin and Lyubomirsky (2009) reported that positive psychology interventions improve well-being and decrease depressive symptoms. Rey et al. (2011) suggested that college students might be taught how to employ specific strategies for repairing negative moods and increasing positive ones to experience higher feelings of self worth; this might help them to increase their feelings of satisfaction with their life. To maximize the efficacy of prevention or treatment approach, professionals need to be able to tailor

strategies based on improving student's life situations and strengthen his/her self-esteem.

LIMITATIONS

Although the results of the current study are interesting and have implications for interventions that could reduce depressive symptoms feelings in college students, several limitations may have influenced the results.

Firstly, the generalizability of the results may be limited because the study used a sample of undergraduate students from one university. The results are not representative of other college students in other UAE universities. Secondly, this study relied on self-report measures for the predictor variables as well as independent variables, potentially creating a mono-method bias. Thirdly, the data in the current study were gathered at one point in time. Consequently, the respondents' perception may have been influenced by covariate factors. Thus, the interpretation of the results is constrained by the cross-sectional nature of the data. Finally, difficulties such as misunderstanding the Likert-type scale and carelessness were encountered in the administration of the instruments. These difficulties may have affected the scores obtained and thus weakened the validity of the study.

Based on the limitations, the findings should be interpreted cautiously and the findings need to be replicated with a more representative sample of college students. In general, there is an obvious need to carry out further research to investigate the variables explored herein with larger samples spanning multiple cultures or different ages, and with other populations, such as children and younger adolescents, older adults. Future studies should continue to explore other factors that might contribute to depressive symptoms. In addition, there is a need for interventional studies aimed at helping college students who experience depressive symptoms. More so, research replicating the present study could also be performed to either confirm or repudiate the findings of the study. Furthermore, advanced statistical analyses involving mediators and moderators as well as experimental research designs could shed light onto the mechanisms through which other demographic and psychological factors impact the depressive symptoms and suggest what causal pathways might exist for these variables.

Conclusion

Results of this study showed that depressive symptoms have a high rate in UAE college students. Females experience higher depressive symptoms than males do. Single students had higher levels of depressive symptom than married students; levels of life satisfaction and self-esteem were negatively associated with frequency of depressive symptoms. As pointed out in the literature.

The results of this study may be used to identify students most vulnerable and in need of assistance in relation to depressive symptoms and provide valuable information for future service planning and development, which may be directed at assisting depressed college students.

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