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Abdul Abyad

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FROM THE EDITOR

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This is the first issue of the journal this year. It has four papers from the region. A Cross-sectional study from Sultanate of Oman was conducted on patients suffering from dementia through evaluating medical records of all dementia patients attending neurology and psychiatry clinics and those who were admitted at the medical wards at Sultan Qaboos University Hospital from May 2011 to May 2013. Basic information regarding patient’s age, gender, medical co-morbidity, lists of medications. The authors looked at the medical and socio-demographic features of patients with dementia attending neurology and psychiatry clinics along with identifying prescribed medications and physical co morbidities at a tertiary care hospital in Oman. A total of 101 patients with dementia (53 Females, 48 Males) attended the service during the study period. The mean age was 72 (9.09± SD) years, while the mean duration of illness was 2 years and median number of medications was 3. Medical co morbidities among dementia patients were hypertension 56.4%, diabetes mellitus 31.7%, heart disease 23.6%, and dyslipidemia 19.6%. The author concluded that the commonest type of dementia in this study was Alzheimer’s dementia followed by vascular type. The most common co morbidities were hypertension, cardiac disease, diabetes mellitus and dyslipidemia.

Suicide is a complex human behavior with biological, sociological, and psychological roots it may be seen in every community. From an average person reacting to stressful life conditions to patients with severe mental health disorders and psychiatric illnesses. A retrospective study about suicide completer from Egypt in Mansoura city. Demographic Data include: age, sex, residence, reasons, previous attempts, presence or absence of history of mental disorders, psychosocial trouble, and methods used for suicide were collected retrospectively from the major hospitals in Mansoura City (Emergency hospital. Data was collected from the patient themselves, attending to the hospitals with self harm, or from their relatives and friends who are coming within a critical condition or attending dead to the hospital. The results showed that the precipitating factors for suicidal committing, social problems were the commonest (involved in 40% in cases) included family, marital and work conflicts, in all age groups and both genders. While mental illness (depression and schizophrenia) were the second cause as they were involved in 38 cases 36.5% (22.1%) Depression, (14.4%) schizophrenia, also substance abuse was seen in 7 cases (6.7%).

A paper from Iran looked at the effectiveness of teaching emotional intelligence on assertiveness and self-esteem in female students. This research was a quasi-experimental with pre-test and post-test and control group. The participants were allocated to two matched groups based on their pre-test scores. They were assigned randomly to the control and experimental groups. The used tools in this research were Cooper smith’s self-esteem inventory and the assertiveness scale of adolescent (ASA). Unilateral and multivariate analyses of covariance were employed to analyses the data. The findings indicated there is not a significant difference between mother with or without children with speech disorder in positive, negative and expressed emotion (p<0.05). Also, there is statistically significant difference between these two groups in caregiver burden (p<0.05). Besides, the results revealed that there is a significant association between caregiver burden and expressed emotion (p<0.005). The author concluded that these findings, it seems that emotional intelligence in students can be one of the preventing factors in behavioral problems.

An opinion paper from Lebanon and Tunisia looked at the problem of Alzheimer’s disease in the region. Middle Eastern nations have certain social, social and monetary qualities just the same as comparable desire. The rate of elderly in the Middle East will increment with change of the medicinal services conveyance in the region. The area, like other nations, needs to characterize the arrangements and projects that will diminish the weight of maturing populations on the general public and its economy. There is a need to guarantee the accessibility of wellbeing and social administrations for more established persons and advance their proceeding with interest in a socially and financially gainful life. There is late increment in the quantity of Alzheimer’s patients in the district inferable from expansion life span and mindfulness notwithstanding better diagnosis.

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Physical co-morbidities among patients with Dementia at a tertiary care Hospital in Oman: A Cross Sectional Study

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Abstract

Objectives: The objective of this study is to determine the medical and socio-demographic features of patients with dementia attending neurology and psychiatry clinics along with identifying prescribed medications and physical co-morbidities at a tertiary care hospital in Oman.

Methods: A Cross-sectional study was conducted on patients suffering from dementia through evaluating medical records of all dementia patients attending neurology and psychiatry clinics and those who were admitted at the medical wards at Sultan Qaboos University Hospital from May 2011 to May 2013. Basic information regarding patient’s age, gender, medical co-morbidity, and lists of medications prescribed were obtained and extracted from the electronic medical records.

Results: A total of 101 patients with dementia (53 Females, 48 Males) attended the service during the study period. The mean age was 72 (9.09±SD) years, while the mean duration of illness was 2 years and median number of medications was 3. Medical co-morbidities among dementia patients were hypertension 56.4%, diabetes mellitus 31.7%, heart disease 23.6%, and dyslipidemia 19.6%.

Conclusion: The commonest type of dementia in this study was Alzheimer’s dementia followed by vascular type. The most common co-morbidities were hypertension, cardiac disease, diabetes mellitus and dyslipidemia.

Key words: Dementia, Medical co-morbidity, Oman.
Introduction

Dementia is a persistent and progressive mental disorder. It is marked by impaired reasoning, personality changes and memory disorders. Dementia leads to decline in the reasoning capability of a person and also has an adverse impact on memory. Dementia is also defined as a clinical syndrome which is characterized by global cognitive impairment which represents a decline from previous level of functioning, and is associated with impairment in functional abilities and, in many cases, behavioral and psychiatric disturbances.(1) The diagnostic features include one of the following: apraxia, aphasia, agnosia and various disturbances in the executive functioning of the brain. In addition, impairments which are cognitive in nature are required to be very severe so as to cause the impairment and disturbances in occupational and social functioning.(1) The most common type of dementia is Alzheimer’s disease followed by Vascular Dementia(2). In most of the developed nations, dementia is considered to be an important public health issue because it occurs mainly in the aging population. In some of the developing countries of the world, an increase in the prevalence of dementia is anticipated along with the rise in the expectancy of life.(2)

It is estimated that 6% of the Arab population were above the age of 60 in the year 2010. This percentage is expected to rise to 17% by the year 2050.(2) Moreover, it is estimated that 1% of those between the age of 65-69 years suffer with dementia.(3) This prevalence increases more than 20% in those between the ages of 85-89 years.(3) In Oman, it is estimated that elderly people make up 4.1% of the total Omani population (Oman National census 2014).(4) At present, through most parts of the Middle East there is no specialized geriatric service that targets this group of patients, and their health and social needs are not fully met by the mainstream services. This statement is further supported by a systematic review of the literature published in October 2014 that included 54 primary studies, 8 reviews and 3 guidelines. This review showed some evidence that people with dementia did not have the same access to treatment and monitoring for conditions such as visual impairment and diabetes as those with similar co-morbidities but without dementia(5).

A study from the Kingdom of Saudi Arabia on co-morbid physical and psychiatric disorders among elderly patients has shown that 63.8% of elderly Saudis had at least one chronic medical condition(6). Another study undertaken in North Carolina to estimate medical co-morbidity in patients, found that 61% of patients with Alzheimer disease had three or more co-morbid medical illnesses and it increased with the dementia severity.(7) While, another study for the predictors of mortality in patients with Alzheimer’s disease found that overall mortality rate was 50% in the first year after diagnosis and diabetes and cardiovascular diseases were independent predictors of death regardless of dementia severity.(8) Similarly, a study on the symptom pattern and co-morbidity in the early stages of Alzheimer’s disease found that patients with Alzheimer’s disease reported common symptoms of co-morbid illnesses compared to control group with similar co-morbidities but without dementia(9). In the Arabic countries, very few studies have been conducted regarding dementia with poor data regarding its prevalence and the presence of physical co-morbidities with this condition. The most common symptoms in patients with dementia are falls, malnutrition, delirium, frailty, sleep disorders, incontinence and visual dysfunction. Therefore, addressing overall wellbeing of these patients is a crucial step in the management and service provision with governments taking into account the growing concerns on measures and remedies to treat this progressive condition, in order to maintain patients’ quality of life and the ability of the services to support families and carers.(10) It is also worth noting that hospitalizing patients with advanced late stage dementia is highly expensive and cumbersome causing tremendous burden on families and carers which understandably has been the focus of concerns for the patient’s family whether to hospitalize their loved ones or not(11)=. Hence, by adopting a holistic approach in the assessment and management of patients with dementia alongside addressing patient’s physical health needs will provide patients with lesser possibilities of hospital admissions and reduction in burden of care.

Dementia in Oman

Very few studies have been conducted on the population of Oman with respect to dementia. Furthermore, dementia in Oman is not only restricted to the older generation, but younger generations are also adversely affected by this condition. According to a local study the most common type of Dementia is Alzheimer’s disease, followed by vascular dementia and frontotemporal dementia(12). While another study concluded that for identification of the frontotemporal dementia, the combination of various cognitive and behavioral assessments is essential in early diagnosis of the patients in Oman(13). Moreover, another study of patients suffering from vascular dementia, revealed that conditions like hyperlipidemia, inflammatory diseases, hypertension and diabetes are primarily responsible for cognitive impairment in this group of patients.(14) Most of the population in Oman does not consider personal distress as a constituent of illness and they do not prefer seeking medical help; such an attitude has led to the increase in the number of patients of this disease and slowly it has taken the form of an epidemic.(14) The objective of this study was to assess the socio-demographics of patients with dementia attending psychiatry and neurology clinics at a tertiary care hospital in Oman and identifying the physical co-morbidities and medications prescribed.

Method

A Cross-sectional study was conducted over the period (May 2011-May 2013). Medical records were reviewed for all patients diagnosed with dementia, attending neurology and psychiatry clinics, including those who were admitted at the medical wards at Sultan Qaboos University Hospital. Basic information regarding patient’s age, gender, medical
comorbidity, lists of medications prescribed, were obtained from the electronic medical records. Patients with delirium or those with missing data were excluded from the study. Ethical approval was granted by the Ethics Committee at College of Medicine and Health Sciences, at Sultan Qaboos University. Descriptive and analytic statistics were used to analyze the data.

**Results**

A total of 101 patients (43 males, 58 females) were included in this study. The mean age for patients was 72 years (8.3± SD). Mean duration of illness was 2 years (range 1-19 years). Median number of medications was 3. Patients with Alzheimer type dementia constituted 44.6% of the total sample, followed by vascular type dementia (27.7%), while in 20.8% of the total sample, the type of dementia was not recorded in the medical record.

The remaining 20.8% were distributed among other types of dementia including Lewy body, mixed type, and Frontotemporal dementia (FTD) (Figure1).

**Figure 1: Distribution of patients according to type of dementia**
In this study, the most common medical co-morbidities among dementia patients were hypertension (56%), followed by diabetes mellitus (32%), heart disease (24%), and dyslipidemia (20%). Other conditions such as stroke, musculoskeletal, genitourinary, and gastrointestinal disorders were less prevalent as shown in Figure 3.

Figure 2: common medical co-morbidities among all dementia types

Figure 3: medical co-morbidities in Alzheimer type dementia
The main medical co-morbidities in Alzheimer type dementia were hypertension (58%), diabetes mellitus (27%), dyslipidemia (22%), heart disease (22%) and stroke (7%), as shown in the Figure 5.

**Figure 4: Comorbidities in Vascular Dementia**

![Image of Figure 4](image)

The main medical comorbidities in vascular type dementia were hypertension 57.8% (17 patients), diabetes mellitus 26.7% (12 patients), dyslipidemia 22.2% (4 patients), heart disease 22.2% (8 patients) and stroke 6.7% (5 patients) as shown in the Figure 4.

In this study the percentage of medications prescribed to Dementia patients were anti-hypertensive 48.5% (49 patients), anti-platelet 39.6% (40 patients), statins 31.7% (32 patients), anti-depressants 26.7% (27 patients), oral-hypoglycemic 20.8% (21 patients), atypical-anti-psychotics 14.9% (15 patients) as shown in Figure 5.

**Figure 5**

![Image of Figure 5](image)
Discussion

Dementia is one the common disorders which is related to the functioning of the brain. The aim of this study was to examine the occurrence of various medical co-morbidities in the patients who are suffering from dementia among the Omani population and analyze the correlation of dementia with the age, gender and the diagnosis of the patient.

This study found that the commonest type of dementia is Alzheimer’s disease, followed by vascular and mixed type of dementia. This was reported by a similar study by Al adawi et al from Oman (14) and is consistent with international epidemiological findings (15).

It also reported that the most common comorbidities were hypertension followed by diabetes mellitus and heart disease respectively, while dyslipidemia was reported among 20% of the total sample. Previous international studies reported that hypertension and diabetes are risk factors in middle aged populations but not in old aged people (16). Likewise, several longitudinal studies showed a nonlinear relationship between hypertension and cognitive decline, suggesting that the prevalence of hypertension in dementia may be due to its frequency instead of some pathogenic mechanisms. This is consistent with our findings which showed that Hypertension and diabetes are the most common disorders found in the dementia patients. On the basis of bivariate analysis showed no statistical differences between the number of males and females suffering from Alzheimer diseases (P Value 0.175) and vascular dementia (P value 0.231). This finding was also reported by Ruitenbergh et al (17). However, they also reported that among patients 90 and above, the incidence of Alzheimer’s was higher in females. With regards to the impact of gender on the rate of progression of the disease, Michelle M et al reported that women were more likely to experience faster progression than men. These findings can be attributed to difference in intellectual lifestyle such as education and occupation, habits such as smoking and other social factors (18). In terms of pharmacological treatments, this study found that a total of 27 patients with dementia were on antidepressant therapy (6 males and 21 females) which was calculated by implementing bi-variate analysis with a statistically significant result (P=0.02). The study also revealed that there was a statistically significant difference between the two genders in respect of the intake of statins and antiplatelets with more male patients being prescribed these medications (P<0.05). This difference may be explained by gender-related morbidity (19). This finding was consistent with previous meta-analysis regarding prescribing for dementia patients (20). Conversely, there was no significant statistical difference between the genders in other types of medications. It is worth highlighting that some of the studies showed that using Statin resulted in reducing the risk of dementia (20-25) a topic worth exploring in patients from the gulf region. With regards to the relationship between medical comorbidities and type of dementia this study found no correlation (P<0.05). This was also reported by Vassilaki et al, who found that patients with Hypertension and cardiac disease had high risk of having dementia and Mild Cognitive impairment (21) while other studies found that patients suffering from cardiovascular diseases, COPD and diabetes mellitus had higher mortality, regardless of the levels of cognitive impairment (3). According to the World Alzheimer Report, 2015, hypertension in middle age leads to dementia in later life. Moreover, the study revealed that diabetes is also a cause of the inception of dementia (26). These findings reiterate the need for developing and establishing a robust community and primary care services with easy access to care for the population of Oman in order to reduce morbidity and the mortality from the direct effect of these conditions as well as the secondary psychiatric co-morbidities which could potentially develop in later life.

Conclusion

This study reported that Alzheimer’s disease is the most common dementia type, followed by a vascular type. Most common medical co-morbidities were hypertension, DM, Dyslipidemia, and Cardiac disease. Gender was not a risk factor for a specific type of dementia and also no specific comorbidity was found to be a risk for dementia. These findings suggest that prevention, detection and control of obesity, hypertension, diabetes, and dyslipidemia are likely to have maximum positive impact on health and reduce the possibility of acquiring dementia in later life.

Limitations

The limitation of this study includes missing data in some of the records. Missing final diagnosis of some patients. Small sample size.

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4. Electronic resource: https://www.ncsi.gov.om/Pages/NCSI.aspx


Effectiveness of emotional intelligence on assertiveness and self-esteem in high school girl students

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Abstract

Objectives: The aim of this study was to evaluate the effectiveness of teaching emotional intelligence on assertiveness and self-esteem in female students. This research was quasi-experimental with pre-test and post-test and control group. The participants were allocated to two matched groups based on their pre-test scores. They were assigned randomly to the control and experimental groups. The used tools in this research were Coopersmith’s self-esteem inventory and the assertiveness scale of adolescent (ASA). Unilateral and multivariate analyses of covariance were employed to analyse the data.

Result: The findings indicated there is not a significant difference between mother with or without children with speech disorder in positive, negative and expressed emotion (p<0.05). Also, there is a statistically significant difference between these two groups in caregiver burden (p<0.05). Besides, the results revealed that there is a significant association between caregiver burden and expressed emotion (p<0.005).

Conclusion: According to these findings, it seems that emotional intelligence in students can be one of the preventing factors in behavioral problems.

Key words: self-esteem, assertiveness, (ASA), Emotional intelligence, students
Background

Students with higher trait emotional intelligence and stronger social skills were less likely to present with emotional and behavioral difficulties. Trait emotional intelligence along with the acquisition of social skills were influential factors of students’ emotional and behavioral difficulties (1). Therefore, emotional and social competencies are major components of intellectual ability and personality (2). Previous studies have shown emotional intelligence associates with many aspects of life and it plays an important role in the interactions and adjustments in daily life (2). Emotional intelligence is an effective factor in determining one’s ability to succeed in life (school and career) also in interpersonal relationships (3,4,5). Psychologist and counselors notice emotional intelligence as a moderator in cognitive issues and adjustment programs (6,7,8). Emotional intelligence is a capacity to evaluate and convey the apt emotion and moderate the emotional adjustment. There are two approaches in the defining of emotional intelligence; Mayer and Salovey’s ability model and Goleman and Bar-On’s Mixed Model. Currently, Goleman’s model is referred to as a competency model and Bar-On’s as a trait model (9,10). The findings showed that emotional intelligence is significantly related to the social adjustment and social communication skills (11). The components of emotional intelligence are emotional self-awareness, assertiveness, empathy, interpersonal relationship, stress tolerance and impulse control (12). Previous study has highlighted the positive relationship between emotional intelligence subscales and mental health (13,14) and the negative relationship with psychotic disorder (15).

Emotional intelligence influences the cognitive system and selective attention (16). As Caruso (2008) observes, “emotions direct our attention and motivate us to engage in certain behaviors” (11). Bar-on believes that individuals with higher emotional quotient (EQ) are more competent in coping with demands, challenges and pressures of everyday life (17). On the other side, the previous studies indicated that the important factors in increasing mental health are assertiveness and self-esteem. Assertiveness is referred to as an ability to convey feelings, beliefs, and thoughts without undue anxiety and to express personal rights without denying the rights of others (18). Assertiveness contributes to accept the responsibility of behavior, maintain and increase self-esteem and self-confidence (19). Assertive individuals are more satisfied with their life (20). The findings from the various clinical research showed the influence of teaching emotional intelligence in coping with stress in students (21,22), improving mental health (23,24), and increasing psychological adjustment in runaway girls (25). Also, emotional intelligence is associated with decreasing behavioral problems (26) and aggressive behavior in students (27), increasing assertive behavior and positive belief in runaway juvenile (25).

Objective

As noted above emotional intelligence has an important role in quality of life and mental health. On other hand, the period of adolescence is a great psychological change. So, this study was investigated the influence of teaching emotional intelligence on self-esteem and assertiveness.

Patients and Methods

3.1. Participants and Plan

This study was conducted in 2014 in Karaj city of Iran; the present study is a quasi-experimental research with pre-post test and treatment group. Firstly 70 students completed the assertiveness scale for adolescents and Coopersmith self-esteem inventory. Then 40 students were randomly selected based on the results of the questionnaires. This sample was assigned to the research and control group with random assignment. Teaching Emotional intelligence was implanted in 8 sessions (one and half-hours for each session) for the research group. So the appropriate technical aspects of emotional intelligence was taught to students such as; knowing one’s emotions, emotional management, and motivating oneself, recognizing emotion in others (29).

The following content was taught to the students in these sessions through the method of role playing and pantomime:

First session: definition of emotion and recognize different types of emotion in life
Second session: recognize facial expressions and the thoughts with these emotions
Third session: study the relationship between automatic thoughts, emotions and behavior through practical behavior
Fourth session: how to identify others’ emotions
Fifth session: diverse methods of expression of emotions and the necessity of emotional management in the life
Sixth session: emotion control (emotional self-control)
Seventh session: emotional control through changing the status, relaxation and emotional keys
Eighth session: teaching the method of emotional problem solving skills, expression of emotions in appropriate and controlled manner

3.2. Measurements

Coopersmith’s self-esteem inventory: This questionnaire was designed by Coopersmith (1967) based on the scale of Rogers and Diamond (1954). It contains 58 items. 4 subscales of this questionnaire are total self-esteem, social self-esteem, family self-esteem, educational self-esteem. The scores of consistency reliability (Cronbach’s alpha) of the subscales are 0.80, 0.79, 0.84, and 0.89 in the Persian version (28,30).

Assertiveness Scale for Adolescents: The ASA is a 33-item questionnaire designed by Lee et al. It describes interpersonal situations and what would the respondents
usually do in each situation. Participants respond to each item on a 3-point Likert-type scale and are classified as assertive, unassertive, and aggressive. The original study reported the internal consistency reliability as 0.84. The internal consistency reliability was reported in the Farsi version as 0.64 (31).

Results

As shown in Table 1, the variables of self-esteem and assertiveness are normally distributed. In Table 2, the results of covariance show that there is a significant difference between the two groups in all subscales of self-esteem (general self-esteem: MS= 82.34, DF=1, F= 45.95, P= 0.001; Family self-esteem: MS=7.88, DF=1, F= 5.84, P= 0.024; social self-esteem: MS= 44.4, DF=1, F= 29.06, P= 0.001; educational self-esteem: MS= 9.02, DF=1, F= 10.71, P= 0.003; total self-esteem= MS= 517.96, DF=1, F= 76.32, P= 0.001). Regarding the results of Ancova (Table 3), the dependent variable (emotional intelligence) has influenced assertiveness. So, the difference between the two groups is significant (MS= 140.83, DF=1, F= 46.43, P= 0.001).

Table 1: Kolmogorov-Smirnov’s test to evaluate the normal distribution of scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Z Kolmogorov-Smirnov</th>
<th>Significance</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>General self-esteem</td>
<td>Pre test</td>
<td>0.725</td>
<td>0.670</td>
<td>Normal</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>0.864</td>
<td>0.444</td>
<td>Normal</td>
</tr>
<tr>
<td>Family self-esteem</td>
<td>Pre test</td>
<td>1.290</td>
<td>0.072</td>
<td>Normal</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>0.961</td>
<td>0.315</td>
<td>Normal</td>
</tr>
<tr>
<td>Social self-esteem</td>
<td>Pre test</td>
<td>0.769</td>
<td>0.595</td>
<td>Normal</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>1.183</td>
<td>0.122</td>
<td>Normal</td>
</tr>
<tr>
<td>Educational self-esteem</td>
<td>Pre test</td>
<td>1.010</td>
<td>0.259</td>
<td>Normal</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>1.043</td>
<td>0.227</td>
<td>Normal</td>
</tr>
<tr>
<td>Total self-esteem</td>
<td>Pre test</td>
<td>0.683</td>
<td>0.739</td>
<td>Normal</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>0.776</td>
<td>0.584</td>
<td>Normal</td>
</tr>
<tr>
<td>Assertiveness</td>
<td>Pre test</td>
<td>0.807</td>
<td>0.533</td>
<td>Normal</td>
</tr>
<tr>
<td></td>
<td>Post test</td>
<td>0.775</td>
<td>0.584</td>
<td>Normal</td>
</tr>
</tbody>
</table>

Table 2: The results of MANCOVA in self-esteem

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total square</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>General self-esteem</td>
<td>82.34</td>
<td>1</td>
<td>82.34</td>
<td>45.95</td>
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</tr>
<tr>
<td>Family self-esteem</td>
<td>7.88</td>
<td>1</td>
<td>7.88</td>
<td>5.84</td>
<td>0.024</td>
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<tr>
<td>Social self-esteem</td>
<td>44.4</td>
<td>1</td>
<td>44.4</td>
<td>29.06</td>
<td>0.001</td>
</tr>
<tr>
<td>Educational self-esteem</td>
<td>9.02</td>
<td>1</td>
<td>9.02</td>
<td>10.71</td>
<td>0.003</td>
</tr>
<tr>
<td>Total self-esteem</td>
<td>517.96</td>
<td>1</td>
<td>517.96</td>
<td>76.32</td>
<td>0.001</td>
</tr>
</tbody>
</table>
Table 3: The results of ANCOVA in assertiveness

<table>
<thead>
<tr>
<th>Source effect</th>
<th>Total square</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>18.64</td>
<td>1</td>
<td>18.64</td>
<td>6.15</td>
<td>0.020</td>
</tr>
<tr>
<td>Group</td>
<td>140.83</td>
<td>1</td>
<td>140.83</td>
<td>46.43</td>
<td>0.001</td>
</tr>
<tr>
<td>Error</td>
<td>3.03</td>
<td>1</td>
<td>3.03</td>
<td>-</td>
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</tbody>
</table>

*P<0.001

Discussion

The aim of the current study is influence of emotional intelligence in improving self-esteem and assertiveness in female students in the first year of secondary school. The results showed that teaching of emotional intelligence can increase the self-esteem and assertiveness in students. Therefore the result of current study showed the emotional intelligence is an effective method to improve assertiveness in female students. This result is in line with the previous study (32). So, this method teaches the student to recognize and manage their emotions (stress, aggression, and so on) and use it in their interpersonal relationships. The previous studies indicated that teaching of emotional intelligence contributes to decreasing of aggressive, educational problem, health problem, increasing of assertiveness, positive feeling, problem solving, and mutual respect in students (33,34). Rey et al (2011) showed the association between perceived emotional intelligence and life satisfaction and focusing on the role of potential mechanisms such as self-esteem involved in the link between perceived emotional intelligence and life satisfaction in adolescents (35). Carmeli et al (2009) indicated the association between emotional intelligence and psychological components - self-esteem, life satisfaction, self-acceptance, and somatic complaints (36). Sanchez et al (2014) showed emotion management, assertiveness, emotion regulation, stress management and impulsiveness, emotional stability and self-worth were associated with aggressive behavior (37). Also the results of the present study indicated that the self-esteem and its subscales in the research group are more than the control group. This result is in line with the previous study (38). Also, previous findings indicated emotional intelligence is a strong determinant of self-esteem and self-esteem acted as mediators of the relationship (39,40). Moreover, self-esteem plays an important role in self-enhancing humour and life satisfaction (41). Students in this method learn self-awareness, manner expressing dissatisfaction, ability to cope with environmental demands and pressures. On the other hand Emotional intelligence is the key for the adjustment of young people in that its lack causes aggressive behavior and drug use (42). It could be argued that teaching emotional intelligence plays a preventing role in behavioral problems. Hence, according to these results and previous studies, it suggests that emotional intelligence will be considered as a necessary teaching program at schools to improve the social and educational function in students. It could be beneficial to involve parents in this program. One of the limitations of this study is the ability to generalize findings to other groups since the participants were female students.

Acknowledgement

Thanks to all students, teachers and school's staff who participated in this study

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Reflection on Alzheimer’s Care in the Middle East

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Abstract

Middle Eastern nations have certain social and monetary qualities but the same comparable desire. The rate of elderly in the Middle East will increment with change of the medicinal services conveyance in the region. The area, like other nations, needs to characterize the arrangements and projects that will diminish the weight of maturing populations on the general public and the economy. There is a need to guarantee the accessibility of wellbeing and social administration for more established persons and advance their proceeding with interest in a socially and financially gainful life. There is late increment in the quantity of Alzheimer’s patients in the district inferable from expansion life span and mindfulness notwithstanding better diagnosis.

Key words: Alzheimer’s care, Middle East
Background

By 2050, the world population is relied upon to achieve 9.1 billion. The world’s elderly population is rapidly developing, both in its outright numbers and in its rate in respect to the more youthful population (1). It is estimated there will be more than 4.5 million hip cracks every year and more than 36 million patients with dementia, which are significantly handicapping conditions clarifying the worries of an up and coming pandemic of slightness, co-grimness, and incapacity (2). It is as of now evaluated that more than half (58%) surprisingly who are 65 years and more seasoned live in developing countries. The world’s more established population encounters a net increment of 1.2 million every month, 80 percent of which will happen in Third World countries (1,2,3). It is anticipated that by the year 2025, the aggregate elderly population will achieve 976 million with 72% living in developing locales (2-5).

The proceeded change of the medicinal services conveyance in the locale will prompt quickly maturing populations inside the following couple of decades. It is anticipated that the population will develop from 600 million to 1.1 billion by 2050. So the more prominent Middle East is one of the quickest developing areas on the planet (2). It is apparent that incessant non communicable ailments that torment elderly populations, and enhance the working sicknesses, upgrade and look after the endless maladies frameworks of maturity backing. All the more particularly, avoidance approach; and put resources into formal procurement of long haul consideration that will be an imperative piece of human services arranging (1,6-12).

Policymakers must make two strides: Shift in wellbeing division needs to incorporate a perpetual sickness avoidance approach; and put resources into formal frameworks of maturity backing. All the more particularly, these nations ought to foundation counteractive action arranging and programming to defer the onset of endless sicknesses, upgrade and look after the endless maladies that torment elderly populations, and enhance the working and every day life for the growing elderly population (6-12).

Financial and Political factors

Middle Eastern society guarantees regard for the elderly and values exceptionally with the regular obligations of warmth between all individuals from the family. The eldest individuals are a wellspring of otherworldly gift, religious confidence, intelligence and adoration. In spite of the general feeling among the vast majority in the locale that sending an elderly parent to a nursing home abuses our feeling of hallowed obligation towards them, numerous people and gatherings are confronted with circumstances, where they have no other option. Among such gatherings are those whose families are abroad, unmarried ladies, old individuals whose families can’t bolster them fiscally, and the individuals who experience the ill effects of infections where proficient consideration is required (13,14). Elderly individuals in the area get social and financial backing from the casual wellsprings of developed family arrangements, and especially from their own youngsters. With smaller families being the pattern, this will prompt less conceivably strong accessible younger generations. Where youngsters are in a position to help their matured guardians, the lion’s share of them do as such. In any case, customary examples of family obligation will decrease with monetary improvement (13,14).

Administrations of the region are still accepting that families will deal with their own elderly. The changing financial and moving relocation designs lead to the projection that the procurement of long haul consideration that will be an imperative piece of human services arranging (1,6-12).

Psychiatric Morbidity in the Region

Psychiatric bleakness in the Arab world is belittled. This is because only a couple of epidemiological studies have been done in the field. Screening of representative from primary health care services patients in Saudi Arabia and the United Arab Emirates (UAE) showed psychiatric dreariness of 26 and 27.6% separately (13,14).

Informal information in various nursing home offices in Lebanon uncovered a 25 to 30 percent of melancholy among inhabitants and 10 to 15 percent of dementia. At Ain WaZein elderly care focus on the commonness of dementia is very nearly 20 percent of the inhabitants and wretchedness is right now at 25 percent. Behavioral aggravations influence around 20 to 30 percent of occupants in long haul stay in Lebanon. Al-Ain Community study in the UAE uncovered a pervasiveness of 2.6% memory issues in patients over the age of 60 years.

The status of the elderly in the Arab Culture

Arab society guarantees regard for the elderly and values exceedingly the characteristic obligations of fondness between all individuals from the family. The eldest individuals are a wellspring of profound gift and models of devotion, religious confidence, knowledge and adoration. In his book entitled The Arab World: Society, Culture and State, Halim Barakat attests that in Arab social orders, “kids change from being “iyal” (subordinate children) to “sanad” (supporters) once their folks achieve maturity. This clarifies why guardians in some parts of the Arab world may allude to a tyke as “sanadi” (my backing).

The late social changes

The family has dependably been the pillar of the slight elderly in the Arab world, however circumstances are bit by bit dissolving this emotionally supportive network. Elements, for example, of youth relocation for vocation
and instructive crevices between relatives represent the disintegration of the family's emotionally supportive network. (13,14). Families face incredible challenges in supporting their reliant elderly. Grimmer designs have changed and prompt drawn out conditions of unending infection, psychiatric diseases, reliance and loss of self-governance for developing quantities of Arabic elderly. Ladies, who generally bear the principle obligations regarding giving family mind, enter work for reasons of individual decision and financial necessity and are no more accessible to tend to matured relatives. Administrations of the region are as yet expecting that families will deal with their own elderly. The changing monetary and moving relocation designs lead to the projection that the procurement of long haul consideration will be an essential piece of medicinal services arranging (1).

It is essential to accomplish a parity of consideration amongst group and institutional administrations, both for compassionate and financial reasons. Given the development of the maturing population in the Arab World, particularly the most established, with expected various unending ailments, the requirement for discontinuous or consistent long haul care administrations will without a doubt develop, including nursing offices and home or group based long haul care.

Prevalence of Alzheimer’s in the Middle East

In 2008, the World Health Organization (WHO) pronounced dementia as a priority Condition through the Mental Health Gap Action Program (15). Dementia, including Alzheimer’s illness, is one of the greatest worldwide general wellbeing challenges confronting our era. Today, more than 35 million individuals overall as of now live with the condition and this number is relied upon to increase twofold by 2030 and more than triple by 2050 to 115 million. As a generally youthful population, there is low consciousness of Alzheimer’s affection in the Middle East. It is a staggering malady and the region will in the end need to confront the expanding weight of Alzheimer’s as the population actually ages. There are a couple of issues about the disease in the Middle East however we do see early frequency (up to 10 years sooner than in the West) of other age related illnesses, for example, stroke and coronary illness in Egypt, where details are accessible. Shockingly, this recommends the Middle East may confront the weight of Alzheimer’s ailment and related dementias much sooner than in the West.

In the Middle East the population is maturing bit by bit and the rate of elderly will increase twofold in the coming ten years. There is no unmistakable appraisal in the region of the evaluation of Alzheimer ailment despite the fact that we trust that the pervasiveness is like other developed nations yet there are no real studies in the territory on Alzheimer. There are not very many resources on Alzheimer’s insights in the Middle East. None of the health administration in the area, discharge open figures on the quantities of individuals with dementia or Alzheimer’s and there are no Alzheimer’s affiliations or backing groups gathering information. The WHO dementia report says the Middle East and North Africa will see a 125 percent increment in cases by 2050 and suggests that very nearly 6 percent of those more than 60 will experience the ill effects of it.

In any case, a pilot study in Dubai uncovered a year ago that the prevalence there was more like 14 percent, says Dr Mohammed Gamil Elnoamani, a senior geriatrician and head of medicinal issues at Dubai’s Family Gathering Center, which runs a month to month care group for caregivers of Alzheimer’s and dementia patients. An all the more stressing finding was that only over 12 percent of individuals with the ailment are accepting treatment.

In the Region Alzheimer ailment does not get much consideration attributable to the way that not many people know about the illness notwithstanding the absence of education among the social insurance group on how to bargain enough with the sickness inferable from the absence of preparing in the field. Moreover in the Region there is absence of enough geriatricians and there is nonattendance of geriatric groups inside health facilities both at the public and private level. There is a need to bring issues to light about the sickness among the general population and to prepare the current health care team in the field.

Care giver help

In the Middle East, there is an extra general wellbeing concern, one influencing caregivers. The World Alzheimer Report 2013 sent a reasonable message about the fate of Alzheimer’s: “The conventional arrangement of “casual” consideration by family, companions, and groups will need much more noteworthy help.” This is especially related to this area on the planet where private accommodation homes are few and far between, and the onus on administering to the elderly falls to the family.

Frequently, life partners and other relatives give the everyday care to individuals with AD. As the disease deteriorates, individuals regularly require increasing attention. This can be hard for caregivers and can influence their physical and psychological well-being, family life, occupation, and funds. There are insufficient care groups, administrations, research focuses, getting included in studies, and productions about AD, in the region.

Health Care system in the region

Health care frameworks in the area have disregarded the requirements of the elderly. There are just sporadic projects that deal with the elderly for the most part started by special groups or inside the private area. In Egypt for instance there are 34 old people’s homes for more than one million elderly individuals and some homes have holding up arrangements of more than 1000 persons. The first specialized unit in Alzheimer that was established in the Middle East was built up in the North of Lebanon.
Elderly patients with demented disease will require an extensive variety of expert administration and the consideration of their families. During the time spent creating satisfactory administrations, is the understanding that home consideration and institutional administrations are correlative and multidirectional. Consideration of such patients needs the mutual obligation of both families and expert administration suppliers. The part of those worried with the maturing Arab world is to give groups and concerned experts the information and abilities to take care of their issues and to just import arrangements from developed nations after other more significant choices have been investigated. Psychogeriatrics, geriatrics, and gerontological data ought to be a part of the training of all healthcare professionals in the region.

Unique training programs in the region

While trying to cover the hole, the Middle East Academy for Medicine of Aging was established to empower the improvement of health care services for the elderly. It was set up by various educators and instructors from the Middle East and Europe. The primary postgraduate course occurred somewhere around 2003 and 2005, with the second course between 2007-2009, the third course between 2010-2012, the fourth course between 2012-2104 and the fifth course is currently running. The course has been developed with 4 sessions, on each of 4 days, that covers imperative subjects of wellbeing related issues in elderly individuals (16). This concentrated course is made up of four sessions, is coordinated towards doctors, medical attendants, social laborers, and human services officers, in charge of the medicinal services of more elderly individuals.

Special Organisations

The Middle East Association on Aging and Alzheimer’s (MEAAA)

In an endeavor to answer a portion of the deficiency in the region, the MEAAA was built up keeping in mind the end goal to bolster different exercises in the field of aging and Alzheimer’s disease. MEAAA helped in co-organizing the first, second, and third Middle East Congress on Aging in Istanbul, Tripoli, and Riyadh.

The Middle East Journal of Age and Aging (ME-JAA)

The Middle-Eastern Journal of Age and Aging began in July 2004. The Mission of the Journal is to advance geriatric medicine, gerontology and aging related issues in the Middle-East.

The Middle East Journal of Psychiatry and Alzheimer’s


The Middle East Network on Aging examination (MENAR)

Regardless of the way that 93% of potential years of life lost are in developing nations, just 5% of research dollars are spent on ageing issues of developing countries(1). There is a generous exploration need in the aging field in the Middle-East.

Conclusion

The demographic changes and social and monetary advancements in the Region have made new ground in an exceptional development of the elderly population. Patterns, for example, fast urbanization, a move from more distant families to nuclear families, and innovative advancements make the issue of aging in the Middle East an intense one. Unseemly use of exorbitant innovation could without much of a stretch result, joined by redirection of assets from existing essential consideration administrations in weakening of the current medical services framework. A large number of the best measures of advancing freedom and self-rule guarantee to come about because of natural changes and group associations, e.g., transportation and physical adjustments for those with hindered mobility, procurement of suitable innovation for the hearing or outwardly weakened, support of shared help groups. What is key is to guarantee the most ideal personal satisfaction for the best conceivable number of our aged.

The governments need to promote essential competency among doctors and other medicinal services experts in early identification of dementia in gate keeper services. There is a need to make referral centers that are expert in confirming early stage dementia diagnosis and define future care management plan. Notwithstanding we need to build mindfulness about the accessibility of confirmation based mediations that are powerful in enhancing psychological capacity, treating sadness, enhancing guardian mind-set and postponing institutionalisation.

References

Psychiatric analysis of suicide completers in Mansoura city

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Abstract

Background: Suicide is a complex human behavior with biological, sociological, and psychological roots. It may be seen in every community, from an average person reacting to stressful life conditions to patients with severe mental health disorders and psychiatric illnesses.

Aim of work and Method: A retrospective study about suicide completers in Mansoura city. Demographic data include: age, sex, residence, reasons, previous attempts, presence or absence of history of mental disorders, psychosocial trouble, and methods used for suicide were collected retrospectively from the major hospitals in Mansoura City (Emergency hospital, General hospital and Mansoura International hospital) from January 2009 to December 2014. Data was collected from the patient themselves, or from their relatives and friends who are coming with them in a critical condition or attending the dead to the hospital.

Results: Regarding the precipitating factors for suicidal committing, social problems were the commonest (involved in 40% in cases) and included family, marital and work conflicts, in all age groups and both genders. While mental illness (depression and schizophrenia) were the second cause as they were involved in 38 cases 36.5% (22.1%) Depression, (14.4%) schizophrenia, also substance abuse was seen in 7 cases (6.7%).

Key words: Suicide completers. Psychiatric disorders. Rate.
Introduction

Suicide is a self-inflicted death that is intentional rather than accidental. It is a complex human behavior with biological, sociological, and psychological roots (Guiana et al., 2002 and Maes et al., 1993). Every year, almost one million people die as a result of suicide, with a mortality rate of about 16 per 100,000, which means that one death occurs every 40 seconds (WHO, 2012). It may be seen in every community, from an average person reacting to stressful life conditions, to patients with severe mental health disorders. Suicide is still a very controversial matter, because it is one of the main reasons for death in recent years (Cheng & Chen 2000 and Oner et al., 2007). According to calculations based on data reported to WHO by its Member States, in 1998 suicide represented 1.8% of the global burden of diseases and it is expected to increase to 2.4% by the year 2020 (Murray & Lopez, 1996). Suicide is also among the 10 leading causes of death for all ages in most of the countries for which information is available (Ernst et al., 2007). Suicide is among the three leading causes of death among people aged 15-44 years in some countries and the second-leading cause of death among those aged 10-24 years; these figures do not include the suicide attempts, which are up to 20 times more frequent than completed suicide (Maes et al., 1993).

Demographic features like age, sex and method of suicide completer may exhibit variations between societies and between different regions of the same country, and even in the same region, depending on various variables (Stojkoski & Grozeva, 2005 and WHO, 2009).

Suicidal attempt is frequently attributed to mental disorder such as depression, bipolar disorder, schizophrenia, borderline personality disorders (Fleischmann et al., 2004) alcoholism, or drug abuse (Perrotto et al., 2001). Psychosocial troubles with interpersonal relationships often play a role (Hawton & van Heeringen, 2009). However, two psychological factors significantly associated with suicidal behaviours are hopelessness and impulsivity (Chehil & Kutcher, 2012).

Although suicide is a general popular cause of death, the prediction of those who are at risk for death by suicide or suicide attempts remains difficult. While suicidal death is very common in those with a history of suicide attempts, most patients with suicidal ideation never make a suicide attempt or die by suicide (WHO, 2009). It is believed that the most dramatic increase in suicide mortality will be observed in the Third World countries. This is due to the socioeconomic and behavioural factors (Gad El Hak, 2009). A previous study was carried out to evaluate the suicidal completers in Egyptian cities; this study focusing mainly on demographics and statistics and did not fulfil the psychological background or circumstantial evidence of the studied cases (Abdelmonem et al., 2012). In Egypt there is no data bank for suicidal completers and this causes underestimation. Official governmental reports are misleading and do not represent the true rate; assuming that one in ten suicide attempts ends with actual suicide, a crude estimate of suicide in Egypt would be about 3.5 per 100,000 (Okasha & Lotaief, 1983).

The last data found regarding suicide rates in Egypt, according to the WHO, was 0.1 per 100,000 in 1987. In the present study we have investigated suicidal deaths in 3 main hospitals in Mansoura city in Egypt, focusing on previous psychiatric disorders, circumstantial evidence and backgrounds of persons who commit suicide, also ordinary demographic data regarding ages, genders and methods applied for suicide.

Subjects and Methods

Data on suicide incidence, age, sex, residence, reasons, previous attempts, presence or absence of history of mental disorders, psychosocial trouble, and methods used for suicide were collected retrospectively from the major hospitals in Mansoura City (Emergency hospital, General hospital and Mansoura International hospital) from January, 2009 to December, 2014. Mansoura City is the capital of one of the biggest Egypt provinces. It has a population of about 5,876,583 million according to national statistics at 2015.

Data was collected from the patients themselves, attending the hospitals with self harm, or from their relatives and friends who are coming with them in a critical condition or dead to the hospital.

All circumstantial evidence of the suicide act was collected regarding timing, loneliness of the cases, active preparation to suicide (such as buying hanging ropes, pesticides, kerosene for firing, buying drugs...etc), informing others about the suicidal intent, asking for help and acts to prevent discovery of their attempts, as well as any attempts to ask help from others after infliction of the suicidal act, was considered.

Results

In this study there were 91 persons who committed suicide in Mansoura city in the period from (January, 2009 to December, 2014). Twelve cases were attended dead to the hospitals with failed cardiopulmonary resuscitation attempts, while 79 cases died within 1-7 days after admission.

Table 1: Number of cases who commit suicide every year

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of cases</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>18</td>
<td>19.75%</td>
</tr>
<tr>
<td>2010</td>
<td>17</td>
<td>18.55%</td>
</tr>
<tr>
<td>2011</td>
<td>12</td>
<td>13.13%</td>
</tr>
<tr>
<td>2012</td>
<td>16</td>
<td>17.58%</td>
</tr>
<tr>
<td>2013</td>
<td>15</td>
<td>16.34%</td>
</tr>
<tr>
<td>2014</td>
<td>13</td>
<td>14.65%</td>
</tr>
<tr>
<td>Total</td>
<td>91</td>
<td>100%</td>
</tr>
</tbody>
</table>
Table 2: Socio-demographic data of cases who commit suicide

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Groups</th>
<th>Number of cases</th>
<th>Ratios</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>&lt;20 Yrs</td>
<td>18</td>
<td>19.76%</td>
</tr>
<tr>
<td></td>
<td>20-29 Yrs</td>
<td>37</td>
<td>40.65%</td>
</tr>
<tr>
<td></td>
<td>30-39 Yrs</td>
<td>20</td>
<td>21.97%</td>
</tr>
<tr>
<td></td>
<td>≥40 yrs</td>
<td>16</td>
<td>17.58%</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>57</td>
<td>62.33%</td>
</tr>
<tr>
<td></td>
<td>Females</td>
<td>34</td>
<td>37.77%</td>
</tr>
<tr>
<td>Marital status</td>
<td>Divorced</td>
<td>14</td>
<td>15.38%</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>38</td>
<td>41.77%</td>
</tr>
<tr>
<td></td>
<td>Unmarried</td>
<td>39</td>
<td>42.85%</td>
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<tr>
<td>Educational level</td>
<td>Non educated</td>
<td>13</td>
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</tr>
<tr>
<td></td>
<td>High school graduate</td>
<td>46</td>
<td>50.55%</td>
</tr>
<tr>
<td></td>
<td>University graduate or student</td>
<td>32</td>
<td>35.17%</td>
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<tr>
<td></td>
<td>Private job</td>
<td>38</td>
<td>41.78%</td>
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<td>Governmental job</td>
<td>20</td>
<td>21.97%</td>
</tr>
<tr>
<td></td>
<td>Student</td>
<td>13</td>
<td>14.28%</td>
</tr>
</tbody>
</table>

Table 3: The precipitating factors for cases who commit suicide in relation to different age groups and genders

<table>
<thead>
<tr>
<th>Groups</th>
<th>Social problems</th>
<th>Financial problems</th>
<th>Psychotic illness</th>
<th>Substance abuse</th>
</tr>
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<tbody>
<tr>
<td>Age&lt;20 Yrs</td>
<td>9</td>
<td>0</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>20-29 Yrs</td>
<td>18</td>
<td>1</td>
<td>14</td>
<td>4</td>
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<tr>
<td>30-39 Yrs</td>
<td>8</td>
<td>5</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>≥40 yrs</td>
<td>7</td>
<td>7</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Gender</td>
<td>Males</td>
<td>17</td>
<td>13</td>
<td>18</td>
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<tr>
<td></td>
<td>Females</td>
<td>15</td>
<td>4</td>
<td>11</td>
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</table>

Table 4: Methods used for suicide in studied cases in relation to Age and gender

<table>
<thead>
<tr>
<th>Age (Years)</th>
<th>Burn</th>
<th>Self wounding</th>
<th>Overdose of drugs</th>
<th>FFH</th>
<th>Firearm</th>
<th>Hanging</th>
<th>Rodenticide</th>
<th>Total per age</th>
<th>Gender</th>
<th>Total per Gender</th>
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</thead>
<tbody>
<tr>
<td>&lt;20</td>
<td>4</td>
<td>2</td>
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<td>3</td>
<td>0</td>
<td>1</td>
<td>9</td>
<td>16</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>20-29</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>16</td>
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<tr>
<td>30-39</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>10</td>
<td>16</td>
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<td>11</td>
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<tr>
<td>≥40</td>
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<td>2</td>
<td>0</td>
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<td>1</td>
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<td>0.017*</td>
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<td></td>
</tr>
</tbody>
</table>
Table 5: Analysis of circumstantial evidence of suicidal act in mental disorder groups

<table>
<thead>
<tr>
<th></th>
<th>Non psychotic nor abusers</th>
<th>Depression</th>
<th>Schizophrenia</th>
<th>Substance Abusers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Isolation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>9</td>
<td>7</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Absent</td>
<td>38</td>
<td>16</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td><strong>Previous attempts</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>7</td>
<td>6</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Absent</td>
<td>40</td>
<td>17</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td><strong>Told someone</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>9</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Absent</td>
<td>38</td>
<td>20</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td><strong>Active preparation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>10</td>
<td>10</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Absent</td>
<td>37</td>
<td>13</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td><strong>Precautions against discovery</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>9</td>
<td>7</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Passive</td>
<td>18</td>
<td>7</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Active (locked doors)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late night and early morning</td>
<td>33</td>
<td>11</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Other times</td>
<td>14</td>
<td>12</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td><strong>Asked for help</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>15</td>
<td>10</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Absent</td>
<td>32</td>
<td>13</td>
<td>14</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 6: Demographic characteristics of the studied cases with mental illness

<table>
<thead>
<tr>
<th></th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;20 Ys</td>
<td>8</td>
</tr>
<tr>
<td>20-29 Ys</td>
<td>14</td>
</tr>
<tr>
<td>30-39 Ys</td>
<td>11</td>
</tr>
<tr>
<td>≥40 Ys</td>
<td>5</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>27</td>
</tr>
<tr>
<td>Females</td>
<td>11</td>
</tr>
<tr>
<td><strong>Marital status</strong></td>
<td></td>
</tr>
<tr>
<td>Divorced</td>
<td>1</td>
</tr>
<tr>
<td>Married</td>
<td>11</td>
</tr>
<tr>
<td>Unmarried</td>
<td>26</td>
</tr>
<tr>
<td><strong>Educational level</strong></td>
<td></td>
</tr>
<tr>
<td>Non educated</td>
<td>7</td>
</tr>
<tr>
<td>High school graduate</td>
<td>19</td>
</tr>
<tr>
<td>University graduate or student</td>
<td>12</td>
</tr>
<tr>
<td><strong>Work</strong></td>
<td></td>
</tr>
<tr>
<td>No job</td>
<td>20</td>
</tr>
<tr>
<td>Private job</td>
<td>8</td>
</tr>
<tr>
<td>Governmental job</td>
<td>6</td>
</tr>
<tr>
<td>Student</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 7: Methods used for suicide in the studied cases with mental disorders and substance abuse

<table>
<thead>
<tr>
<th>Method</th>
<th>Depression</th>
<th>Schizophrenia</th>
<th>Substance Abusers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burn</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Self wounding</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Overdose</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>FFH</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Firearm</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Hanging</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Rodenticide</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>21</td>
</tr>
<tr>
<td>Totals</td>
<td>23</td>
<td>14</td>
<td>7</td>
<td>60</td>
</tr>
</tbody>
</table>

Table 8: Analysis of circumstantial evidence of suicidal acts in the studied cases with mental disorders and substance abuse

<table>
<thead>
<tr>
<th>Category</th>
<th>Depression</th>
<th>Schizophrenia</th>
<th>Substance Abuser</th>
<th>Number of psychotic and substance abusers</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Isolation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>7</td>
<td>3</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Absent</td>
<td>16</td>
<td>11</td>
<td>6</td>
<td>33</td>
</tr>
<tr>
<td>b. Previous attempts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>Absent</td>
<td>17</td>
<td>11</td>
<td>5</td>
<td>33</td>
</tr>
<tr>
<td>c. Told someone</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Absent</td>
<td>20</td>
<td>11</td>
<td>7</td>
<td>38</td>
</tr>
<tr>
<td>d. Active preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>10</td>
<td>2</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Absent</td>
<td>13</td>
<td>12</td>
<td>3</td>
<td>28</td>
</tr>
<tr>
<td>e. Precautions against discovery</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>7</td>
<td>2</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Passive</td>
<td>7</td>
<td>4</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>Active (locked doors)</td>
<td>9</td>
<td>8</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>f. Timing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Late night and early morning</td>
<td>11</td>
<td>10</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>Other times</td>
<td>12</td>
<td>4</td>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>g. Asked for help</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>10</td>
<td>0</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>Absent</td>
<td>13</td>
<td>14</td>
<td>3</td>
<td>30</td>
</tr>
</tbody>
</table>
Discussion

The present study was conducted to evaluate psychiatric aspects of suicidal deaths in Mansoura city in the delta of Egypt from 2009-2014. The rate of suicide was slightly higher than the rate estimated by (Abd Elmoneim et al., 2011) in Upper Egypt 2005-2009, 0.8 per 100,000 persons and is similar to rates estimated by (Gad Elhak al. 2009) in Port Said 1.66-2.41/100,000 for the period 1998-2004, but also higher than the rate in Cairo 0.47-0.74/100,000 (Taha et al, 2011) for the period 2003-2007 and in Sohag governorate (ELsayed et al 2013) 0.16 to 0.35 per 100,000 persons in period between 2005-2009. The rate is also substantially higher than 0.1 per 100,000 persons reported by the WHO for Egypt in 1987. This variation can be explained by the difference in number of population, different cultural and socioeconomic levels and possibility of underestimation of the number of suicides due to a lack of adequate surveillance and misclassification. However in this study the rate is much lower than other international studies. The average rate of suicide in Sudan was less than one/100000 (Abdel Hafeiz & Nadim, 1978) 2.1/100000 in Jordan for the period 1980-1985, (Daradke, 1989) 4.42/100,000 in Turkey for the year 1999, (Balci & Albek, 2003) 13.4/100,000 in Canada for the period 2003-2004 year (Séguin et al., 2006), 11.5 for 2007 and 12.0/100,000 for 2009 in USA (McIntosh, 2007). In the United Kingdom, suicide rate ranged from 16.5-17 for males and 5.0-5.4 for females in the period 2006-2010 (Lester et al., 1997). In China, the annual rate of suicide is 23/100,000. (Phillips et al., 2002). The fact that the suicide rate is still lower than that of other countries may be explained by the effect of religion and the good relations between family members throughout the country, especially in Upper Egypt. This idea is supported by the work of Setenay et al., (2007) 4.42/100,000 in Turkey (Oneret al., 2007). Per 100,000 suicide rates were Australia 8.6, Canada 11.1, China 12.7, India 23.2, United Kingdom 7.6, United States 11.4, and South Korea 28.9. Lithuania, Japan and Hungary have the highest rates (WHO report 2012). Lower rates in this study and other studies in Egypt are mostly due to the effect of religion. This was also proposed by Nachman et al. (2002) and Setenay et al. (2007) who concluded the same finding when analyzing suicide in Israel and Turkey where the Jewish and Islam religions prohibit the act of suicide. Feelings of hopelessness and the intention to kill oneself are not common among Muslims, for whom losing hope in relief by God and self-inflicted death are blasphemous and punishable in the afterlife. Although the wish to die is not uncommon among people with depression in Arab cultures, it usually remains at the level of wishing that God would terminate their life, and does not progress to the wish to kill themselves (Fakhir el Islam, 2000). Also in this study males represented 64.4% of the suicidal deaths. This is in agreement with previous studies considering suicide more prevalent in males as in Turkey, Israel, Canada, Hungary and Brazil (WHO report 2009). Also this is in accordance with ( Hawton,2000) who stated that the suicide rates in most countries were higher among males than in females, except for China, which had very high rates of suicide in females, especially in rural areas (Wei yuan et al., 2009). This finding is expected as males are more prone to life stressors, financial problems and drug abuse (Bjerkeset et al., 2008). Another explanation was suggested by (Nachman et al., 2002) who stated that serotonin-related syndrome of impulsivity may have a role in increased impulsiveness among males, which is associated with a higher incidence of suicide.

Regarding age, mean Age was 31.5±12 years ranging from 16-36 years old. However this is in accordance with another (Abdelmonem et al 2011) who found that the Middle age group (20-40 years) represented about 60% of the studied cases of suicide. The majority of the suicidal deaths were among the middle aged as they are more liable to life stressors, depression and drug abuse, which are all considered as risk factors for suicide (Yassa et al., 2009). Another study in Egypt found a high percentage of suicide between 20-29 years. More than one half of the cases were unmarried (56.8%). University graduates and students represented about two thirds of the cases. Non employed persons represent about 31.7% of the studied cases (Okasha,1992) while in (Okasha & Lotaief 1983) there was a high percentage in the age group 15-44 years, with no major difference between the genders. Single patients represented 53% of the total, with students showing the highest risk.

Regarding the precipitating factors for committing suicide, social problems were the commonest (involved in 40% in cases) and included family, marital and work conflicts, in all age groups and both genders. Mental illness (depression and schizophrenia) were the second cause as they were involved in 38 cases, 36.5% (22.1%) depression, (14.4%) schizophrenia, also substance abuse was seen in 7 cases (6.7%), while one case was reported to have abnormal behaviour, but was not diagnosed as a specific Mental disorder. This is in agreement with Europe and the USA, where depression is the major cause of suicide (WHO Report 2012). The presence of a mental disorder is an important risk factor for suicide. It is generally acknowledged that over 90% of those who committed suicide had a psychiatric diagnosis at the time of death unsurprisingly. A psychiatric diagnosis in the majority of people who committed suicide had mood disorders (depression) and amounted to (20 - 35.8%). Substance-related disorders (actually, alcohol-related disorders, in the vast majority of the cases) were the second most frequent diagnosis (22.4%). Schizophrenia is the 3rd most frequent diagnosis (10.6%-19,9%) while Personality disorders constitutes (15.2%)(WHO report 2012). In Egypt (Okasha & Lotaief, 1983) showed that Depressive illnesses, hysterical reactions and adjustment disorders in order of frequency were the main causes of suicidal attempt while in (Okasha.1992) Dysthymic disorders, Adjustment, affective and personality disorders were the most common causes.

Regarding the methods applied for suicide, Pesticides (29.8%) and drug overdoses (19.2%) 51 cases (49%) were the leading methods in both genders and different age
groups. This finding is in accordance with Abd Elmeneim et al. (2011). While Gad Elhak's study (2009) stated that pesticides were the commonest method in females while drowning is the commonest in males and substance abuse was seen in 7 cases (6.7%). This is in agreement with Okasha & Lotaief 1983, and Okasha 1992, that drug overdose was the most common method used. Also this is in contrast with the most common method used in Japan which is hanging (Eshun et al., 2009), and in USA in which a firearm was the most common method used (Changet al., 2011).

Our analysis of the circumstantial evidence for the suicidal act by statements of the offenders, their relatives and friends showed higher incidence of suicide among 20-29 years and males constituted 64.4%, unmarried 56.8% and the majority 44.2% are high school graduates, unemployed persons and single persons who have private works constituted a high percentage. Rodenticide and then over dosage of drugs were the commonest methods used as were no previous attempt and not asked for help before suicide. As regards suicidal cases with psychiatric illnesses with about 66 % of them in age group 20-40 years and 71% male gender (22.1%) had Depression and (14.4%) had schizophrenia. Substance abuse was only seen in 7 cases (6.7%). Yassa et al., (2009) who indicated that bango (cannabis leaves), a commonly abused drug, was widely spread among youth in Upper Egypt, concentrated in the age group between 21 and 31 years, which is the same age group that has the highest suicide rate. There were no significant differences between cases with and without mental illnesses in relation to methods of committing suicide.

Conclusion

Suicide is a very big problem that may be caused or aggravated by many factors such as social factors and mental disorders. Suicide affects mainly young age groups who are capable of production. Therefore, all efforts should be directed towards the causes to decrease the rate of suicide in our society.

Recommendation

A Data bank for suicide in Egypt should be present for government for programming to decrease rates of suicide. At any rate, suicide remains a major public health problem, and action for its prevention calls for a coordinated multi-factorial approach and this includes limiting access to methods of suicide such as firearms and poisons, treating mental illness, drug misuse, and improving economic circumstances. Although there are crisis hotlines however close association between suicide and mental disorders means psychiatrists are in a strategic position for effective suicide prevention programs.

References

34- Okasha A: Mental health services in Egypt. World Psychiatry,2, 1992: 15-17