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Abdul Abyad

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This is the first issue this year. A number of papers deal with the issue of depression. A paper looks at the management of depression in Australia. The authors stressed that although commendable milestones have been achieved in terms of detection and management of mood disorders in the last few years, the escalating worldwide occurrence of depression is persistently challenging researchers and medics alike. The World Health Organization (WHO) has projected that by 2030, depression will represent the biggest level of disability associated with any physical or mental disorder across the world (WHO, 2004). In Australia, considerable levels of depression affect an estimated 20% of adults directly or indirectly within their lifetime, with approximately twice as many women identified with the disorder in comparison to men. Almost 80% of suicides are said to be preceded by a mood disorder.

A paper from Dubai looked at suicidal ideation among patients suffering depression. The authors stressed that suicidal ideation is common among patients suffering depression. In addition, suicidal ideation is one of challenging issues in psychiatric health care institutions. This paper is an initial review and will be expanded to use databases; Cumulative Index of Nursing Allied and Health Literature (CINAHL), Pubmed and Science Direct to retrieve the published evidence on the topic by using appropriate keywords. The author concluded that although several of the reviewed studies showed that risk factors was found to influence in patients with suicidal ideation. In the future, research may focus on discovering useful strategies to managing and preventing suicidal ideation among patients with depression.

A paper from Jordan looked at mental health in the country. Mental illness has become a significant worldwide health issue in recent years; more than 450 million people suffer from mental disorders. There is an extreme shortage of mental health professionals in low-income countries (approximately one psychiatrist per two million people and one psychiatric nurse per 200,000 people). In Jordan, exact numbers of human resources for mental health are unknown for both the public and private sectors. However, WHO estimates that in 2010 there were 1.09 psychiatrists, 0.54 other medical doctors (not specialized in psychiatry), 3.95 nurses (both associated and registered nurses, not specialized in mental health), 0.27 psychologists, 0.3 social workers, and 0.09 per 100,000 inhabitants.

A paper from Dubai attempted to determine the prevalence and investigate the predictors of violence among students of preparatory and secondary schools. The authors stressed that youth violence is becoming a major unresolved public health problem. Risk factor of violence is anything that increases the probability that a young person will become violent; but no individual or group risk factors can be used to predict violence with any degree of certainty. The authors used a cross sectional study with a sample size of 1054 students who were randomly selected from preparatory and secondary governmental and private schools in Dubai. The prevalence of violence either in the form of beating against study students, witnessed or committed by the study students were 27.8%, 49.3% and 39.4% respectively. Cloths pulling, boxing, slapping or kicking constituted the common forms of beating. Among the non-physical forms of aggressive actions; stealing, insulting, spitting and circulating rumors were reported either committed or witnessed by the study students. Boys are highly likely more prone to be indulged in rough and vulgar violence. Family condition, school environments and some habits like watching TV, playing computer games, practicing violent contact sports and smokers were found to be at more risk of being included in violent acts.

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Prevalence and Risk Factors of Violence among Preparatory and Secondary School Students in Dubai

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Abstract

Introduction: Youth violence is becoming a major unresolved public health problem. Risk factor of violence is anything that increases the probability that a young person will become violent; but no individual or group risk factors can be used to predict violence with any degree of certainty.

Aim of the study: To determine the prevalence and investigate the predictors of violence among students of preparatory and secondary schools in Dubai.

Methodology: A cross sectional study was designed with a sample size of 1054 students who were randomly selected from preparatory and secondary governmental and private schools in Dubai.

Results: The prevalence of violence either in the form of beating against study students, witnessed or committed by the study students were 27.8%, 49.3% and 39.4% respectively. Clothes pulling, boxing, slapping or kicking constituted the common forms of beating. Among the non-physical forms of aggressive actions; stealing, insulting, spitting and circulating rumours were reported either committed or witnessed by the study students. Boys are highly likely more prone to indulge in rough and vulgar violence. Family condition, school environments and some habits like watching TV, playing computer games, practicing violent contact sports and smokers were found to be at more risk of being included in violent acts.

Conclusion: Age, gender, family condition, school environment and some habits may contribute as risk factors for violence among preparatory and secondary school students.

Recommendations: There is a need to seriously address violence as an important health issue in our schools given its magnitude. Application of a comprehensive anti-violence program is a must. For violence interventions to be effective they must focus beyond the violent child and the victim to include peers, school staff, parents and the community. This program can be integrated in the school health program.

Key words: Violence, preparatory schools, Dubai
Introduction

Violence is defined as “the intentional use of physical force or power, threatened or actual, against oneself, another person or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development, or deprivation”. The use of physical force or power should be understood to include neglect and all types of physical, sexual and psychological abuse, as well as suicide and other self-abusive acts.(1)

Interpersonal physical violence is an important public health concern that has received limited attention in the developing world.(2) Physical aggression in children is a major public health problem. It is not only a precursor of physical and mental health problems, but aggressive children themselves are at higher risk of alcohol and drug abuse, violent crimes, depression, suicide attempts, spouse abuse, neglectful and abusive parenting.(3) Children and adolescents can experience violence as the perpetrator, the victim or the perpetrator/victim.(4)

Violence is affecting every community and every country in the world. It has become a global problem that threatens the lives and security of people everywhere. Because of its widespread nature, violence is considered now a human fact that cannot be avoided.(5) No country or community is untouched by violence. Because it is so pervasive, violence is often seen as an inevitable part of the human condition, a fact of life to respond to, rather than to prevent. Furthermore a substantial proportion of the costs of violence results from its impact on victims’ health and the burden it places on health institutions. This gives the health sector both a special interest in prevention and a key role to play. (6)

Every year, more than 1.6 million people die because of violence. Of these deaths, 90% occur in low- and middle income countries. Self-directed and interpersonal violence, account for 54% and 35% of the global death toll due to violence respectively. A review of development agency web sites and documents suggests that, while interpersonal violence is clearly on their agenda, it is given a lower priority than collective violence and self-directed violence. Recent WHO projections show the trend of interpersonal violence, that deaths due to it will rank among the 20 leading causes of death, going from the 22nd leading cause of death in 2004 to the 16th in 2030. During the same time period, self-inflicted injuries will rise from the 16th to the 12th leading cause of death. (7) Research on youth violence has increased our understanding of factors that make some populations more vulnerable to victimization and perpetration. These include individual risk factors, family risk factors, peer and school risk factors and community risk factors.(8)

Special programs are needed to help to identify violent behaviors at schools, to educate school personnel about these behaviors, and educate adolescents about risks they face when they engage in these behaviors.(9) School based programs that intend to prevent violent behavior should be used at all grade levels from pre kindergarten through high school.(10)Youth violence is becoming a major unresolved public health problem and media exposure to violence is a synergistic source of this problem.

Objectives

1. To determine the prevalence of violence among students of preparatory and secondary schools in Dubai.
2. To determine the epidemiological profile of violence among preparatory and secondary school students in Dubai.
3. To investigate the predictors of violent acts among school students in preparatory and secondary school students in Dubai.

Methodology

This is a cross sectional study. The study was conducted among students in preparatory and secondary schools “Governmental and Private” in Dubai city in U.A.E. The total number of schools in Dubai is 183, in Deira and Bur Dubai. In Diera there are 72 private schools and 21 governmental schools (preparatory and secondary) which cover both the males and females. In Bur Dubai there are 69 private schools and 21 governmental schools (preparatory and secondary) which cover both the males and females.

In 2010-2011 the total number of students in governmental preparatory and secondary schools is 8,211 for males and 12,078 for females with a total of 20,289. While in private schools the total number for both male and female students in all grades (preparatory and secondary) was 56,829 students, (numbers of male and female students for the private schools were not available). The total number of preparatory and secondary school students in governmental and private schools is 77,118. Computer program EPI-Info version “6.04” and medical statistics book(11) were used for calculation of the minimum sample size required. According to a recent study (12), the prevalence of physical violence was found to be 57%, so using 3% degree of precision and 95% confident interval, the minimum sample size required was 1046. A sample of 1,046 students was randomly selected from preparatory and secondary schools in Dubai.

A stratified random sample was used. The strata were based upon geographical districts (Bur Dubai and Diera), type of schools (governmental and private), educational grade (7th, 8th, 9th, 10th, 11th and 12th) and sex (males and females). The number of governmental schools was less than that of private schools (42 and 141 respectively). According to the numbers of schools, a proportional allocation technique was used to determine the required number. A total of 16 private schools (8 from Bur Dubai and 8 from Diera), with 4 schools of boys and 4 schools of girls for each district were randomly selected. Also, 4 governmental schools (2 from Bur Dubai and 2 from Diera), with one school for each gender from each district, were
randomly selected. From each school one class was selected randomly from each educational grade. All the students in the selected classes were invited to participate in the study.

**Results**

The likelihood of physical violence being committed by study students as presented in Table 1 was significantly highest among students less than 13 years (OR = 1.94) which decreased gradually as age gets older. Males have significantly 1.64 times the likelihood of committing violence and students from Bur Dubai had also about 3 times the risk of committing violence compared to those from Deira. Also local students had double the likelihood of committing violence in contrast to non locals.

As shown in Table 2, (next page) students who reported school absenteeism due to feeling unsafe were more likely to commit violence than those who didn’t, with risk difference of 1.5-6 times. Students who usually carry sharp tools at school had significantly higher prevalence of committing violence compared to those who didn’t (77.5% versus 33.3% respectively). Students reporting that their colleagues carry sharp tools at school have higher risk of committing violence whether this behavior was done sometimes (OR = 3.22) or always (OR = 3.87).

---

<table>
<thead>
<tr>
<th>Socio-demographic data</th>
<th>Total</th>
<th>Violence within past 4 weeks</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
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<td>No (n = 642)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
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<td>Age (Years)</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>11-</td>
<td>97</td>
<td>44</td>
<td>45.4</td>
<td>53</td>
</tr>
<tr>
<td>13-</td>
<td>396</td>
<td>164</td>
<td>41.4</td>
<td>232</td>
</tr>
<tr>
<td>15-</td>
<td>371</td>
<td>147</td>
<td>39.6</td>
<td>224</td>
</tr>
<tr>
<td>17-21</td>
<td>190</td>
<td>57</td>
<td>30.0</td>
<td>133</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>588</td>
<td>260</td>
<td>44.2</td>
<td>328</td>
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<tr>
<td>Female</td>
<td>466</td>
<td>152</td>
<td>32.6</td>
<td>314</td>
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<td></td>
<td></td>
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<td>Governmental</td>
<td>705</td>
<td>282</td>
<td>40.0</td>
<td>423</td>
</tr>
<tr>
<td>Private</td>
<td>349</td>
<td>130</td>
<td>37.2</td>
<td>219</td>
</tr>
<tr>
<td>Level</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Preparatory</td>
<td>359</td>
<td>137</td>
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<td>222</td>
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<td>Secondary</td>
<td>695</td>
<td>275</td>
<td>39.6</td>
<td>420</td>
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<td>Area</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deira</td>
<td>499</td>
<td>136</td>
<td>27.3</td>
<td>363</td>
</tr>
<tr>
<td>Bur Dubai</td>
<td>555</td>
<td>276</td>
<td>49.7</td>
<td>279</td>
</tr>
<tr>
<td>Nationality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non local</td>
<td>673</td>
<td>222</td>
<td>33.0</td>
<td>451</td>
</tr>
<tr>
<td>Local</td>
<td>381</td>
<td>190</td>
<td>49.9</td>
<td>191</td>
</tr>
<tr>
<td>Birth order</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First</td>
<td>273</td>
<td>110</td>
<td>40.3</td>
<td>163</td>
</tr>
<tr>
<td>Middle</td>
<td>481</td>
<td>167</td>
<td>34.7</td>
<td>314</td>
</tr>
<tr>
<td>Last</td>
<td>300</td>
<td>135</td>
<td>45.0</td>
<td>165</td>
</tr>
</tbody>
</table>

Number of students = 1054

* P < 0.05
Table 3 shows that all habits and physical activity variables are significantly associated with committing violence against others. Those at higher risk of committing violence are those watching TV for 4 hours or more per day (OR = 1.69), prefer boxing on TV (OR = 1.71), or wrestling (OR = 1.83) in contrast to cartoon preference. Students who play computer games for one hour or more had about two times the risk compared to those who don’t. Also, students who practice exercise for three hours or more per week had 1.63 times the risk especially among those who prefer basketball (OR = 1.93) or karate (OR = 2.61). Higher percentage of committing violence was observed among smokers (52.0%) relative to non smokers (38.1%) with an estimated risk ratio of 1.76.

Table 4 shows the results of stepwise logistic regression analysis of factors affecting the occurrence of violence against study students. Out of 16 variables entered in the model six were the most significant predictors for the occurrence of violence namely; type of school, age, circulating rumours against colleagues, having friend carrying sharp tools at school, student sex, and committing insult against colleagues. The risk of beating was almost doubled if the student is in governmental school, aged less than 13 years, circulates rumours against colleagues, his/her colleagues carry sharp tools at school, being a boy or committing insult against colleagues.

Table 5 shows the results of stepwise logistic regression analysis of factors affecting the risk of committing violence by study students. Variables entered in the model include age, sex, area of residence, nationality, birth order, live with whom, feelings toward father, days of school absenteeism due to feeling unsafe, carrying sharp tool at school by student or colleagues, hours/day watching TV, favorite TV programs and smoking. Out of these variables, six were the most significant predictors for the occurrence of violence committed by students namely; area of residence, sex, school absenteeism due to feeling unsafe, carrying sharp tools in school by student or colleagues and feelings toward father. The risk of committing violence by student was almost doubled if the student was living in Bur Dubai, being male, feeling unsafe at school, carrying sharp tools in school, his/her colleagues carry sharp tools at school or being afraid of father.

Table 2: Prevalence of physical violence committed by study students in relation to school environment (Dubai, 2010)

<table>
<thead>
<tr>
<th>School environment</th>
<th>Total</th>
<th>Violence within past 4 weeks</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes (n = 412)</td>
<td>No (n = 642)</td>
<td></td>
</tr>
<tr>
<td>Like school</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>246</td>
<td>95 (38.6)</td>
<td>151 (61.4)</td>
<td>1.13</td>
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<tr>
<td>Sometimes</td>
<td>378</td>
<td>163 (43.1)</td>
<td>215 (56.9)</td>
<td>1.36</td>
</tr>
<tr>
<td>Yes</td>
<td>430</td>
<td>154 (35.8)</td>
<td>276 (64.2)</td>
<td>1.00</td>
</tr>
<tr>
<td>Days of school</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all</td>
<td>874</td>
<td>319 (36.5)</td>
<td>555 (63.5)</td>
<td>1.00</td>
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<tr>
<td>1</td>
<td>121</td>
<td>55 (45.5)</td>
<td>66 (54.5)</td>
<td>1.45</td>
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<tr>
<td>2-3</td>
<td>45</td>
<td>27 (60.0)</td>
<td>18 (40.0)</td>
<td>2.61*</td>
</tr>
<tr>
<td>4+</td>
<td>14</td>
<td>11 (78.6)</td>
<td>3 (21.4)</td>
<td>6.38*</td>
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<tr>
<td>Carry sharp tools in school</td>
<td>Yes</td>
<td>914</td>
<td>304 (33.3)</td>
<td>610 (66.7)</td>
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<tr>
<td>No</td>
<td>60</td>
<td>46 (76.7)</td>
<td>14 (23.3)</td>
<td>6.59*</td>
</tr>
<tr>
<td>Sometimes</td>
<td>80</td>
<td>62 (77.5)</td>
<td>18 (22.5)</td>
<td>6.91*</td>
</tr>
<tr>
<td>Colleagues carry sharp tools in school</td>
<td>Yes</td>
<td>206</td>
<td>206 (56.9)</td>
<td>78 (43.1)</td>
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<td>Sometimes</td>
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<td>82 (56.9)</td>
<td>62 (43.1)</td>
<td>3.22*</td>
</tr>
<tr>
<td>Colleagues carry sharp tools in school</td>
<td>Yes</td>
<td>124</td>
<td>124 (61.4)</td>
<td>78 (38.6)</td>
</tr>
<tr>
<td>No</td>
<td>202</td>
<td>124 (61.4)</td>
<td>78 (38.6)</td>
<td>3.87*</td>
</tr>
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</table>

Number of students = 1054
* P < 0.05
Table 3: Prevalence of physical violence committed by study students in relation to habits and activities (Dubai, 2010)

<table>
<thead>
<tr>
<th>Habits and activities</th>
<th>Total</th>
<th>Violence within past 4 weeks</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
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<tr>
<td></td>
<td></td>
<td>Yes (n = 412)</td>
<td>No (n = 642)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Hours/day watching TV</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 1</td>
<td>472</td>
<td>162 (34.3)</td>
<td>310</td>
<td>65.7</td>
</tr>
<tr>
<td>1-</td>
<td>407</td>
<td>168 (41.3)</td>
<td>239</td>
<td>58.7</td>
</tr>
<tr>
<td>4+</td>
<td>175</td>
<td>82 (46.9)</td>
<td>93</td>
<td>53.1</td>
</tr>
<tr>
<td>Favorite programs</td>
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<td></td>
</tr>
<tr>
<td>Boxing</td>
<td>137</td>
<td>64 (46.7)</td>
<td>73</td>
<td>53.3</td>
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<tr>
<td>Cartoons</td>
<td>121</td>
<td>41 (33.9)</td>
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</tr>
<tr>
<td>Football</td>
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<td>47 (32.2)</td>
<td>99</td>
<td>67.8</td>
</tr>
<tr>
<td>Wrestling</td>
<td>128</td>
<td>62 (48.4)</td>
<td>66</td>
<td>51.6</td>
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<tr>
<td>Others</td>
<td>507</td>
<td>198 (37.9)</td>
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<td>62.1</td>
</tr>
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<td>Hours/week playing computer games</td>
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<td>No</td>
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<td>72 (32.9)</td>
<td>147</td>
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</tr>
<tr>
<td>&lt; 1</td>
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<td>62 (31.0)</td>
<td>138</td>
<td>69.0</td>
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<tr>
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<td>138 (44.8)</td>
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<td>55.2</td>
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<td>4+</td>
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<td>140 (42.8)</td>
<td>187</td>
<td>57.2</td>
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<td>Boxing</td>
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<td>Football</td>
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<td>56.1</td>
</tr>
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<td>57.9</td>
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<td>Car racing</td>
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<td>127 (35.0)</td>
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<td>65.0</td>
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<tr>
<td>Others</td>
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<td>92</td>
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<td>Hours/week practice exercise</td>
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<td>198</td>
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<td>4+</td>
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<td>122 (45.0)</td>
<td>149</td>
<td>55.0</td>
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<td>Favorite exercise (n = 827)</td>
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</tr>
<tr>
<td>Basketball</td>
<td>114</td>
<td>59 (51.8)</td>
<td>55</td>
<td>48.2</td>
</tr>
<tr>
<td>Swimming</td>
<td>123</td>
<td>44 (35.8)</td>
<td>79</td>
<td>64.2</td>
</tr>
<tr>
<td>Karate</td>
<td>27</td>
<td>16 (59.3)</td>
<td>11</td>
<td>40.7</td>
</tr>
<tr>
<td>Others</td>
<td>287</td>
<td>109 (38.0)</td>
<td>178</td>
<td>62.0</td>
</tr>
<tr>
<td>Smoking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>75</td>
<td>39 (52.0)</td>
<td>36</td>
<td>48.0</td>
</tr>
<tr>
<td>No</td>
<td>979</td>
<td>373 (38.1)</td>
<td>606</td>
<td>61.9</td>
</tr>
</tbody>
</table>

Number of students = 1054; * P < 0.05
Table 4: Results of stepwise logistic regression analysis of factors affecting physical violence occurrence against study students

<table>
<thead>
<tr>
<th></th>
<th>P</th>
<th>Adjusted OR</th>
<th>95% C.I.</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>LCL</td>
<td>UCL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Governmental</td>
<td>0.000</td>
<td>2.49*</td>
<td>1.63</td>
<td>3.79</td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (Years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-</td>
<td>0.000</td>
<td>2.95*</td>
<td>1.64</td>
<td>5.32</td>
<td></td>
</tr>
<tr>
<td>13-</td>
<td>0.536</td>
<td>1.16</td>
<td>0.73</td>
<td>1.84</td>
<td></td>
</tr>
<tr>
<td>15-</td>
<td>0.617</td>
<td>1.13</td>
<td>0.70</td>
<td>1.80</td>
<td></td>
</tr>
<tr>
<td>17-21ª</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circulating rumours</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noª</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td>0.249</td>
<td>1.38</td>
<td>0.80</td>
<td>2.37</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>0.003</td>
<td>2.30*</td>
<td>1.33</td>
<td>3.99</td>
<td></td>
</tr>
<tr>
<td>Friends carry sharp tools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noª</td>
<td>0.241</td>
<td>1.32</td>
<td>0.83</td>
<td>2.10</td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td>0.000</td>
<td>2.11*</td>
<td>1.42</td>
<td>3.13</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>0.000</td>
<td>2.70*</td>
<td>1.86</td>
<td>3.91</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insulting colleagues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noª</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td>0.249</td>
<td>1.28</td>
<td>0.84</td>
<td>1.95</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>0.004</td>
<td>1.74*</td>
<td>1.20</td>
<td>2.52</td>
<td></td>
</tr>
</tbody>
</table>

Total No. of students = 1054
ª = reference category  * P < 0.05
Table 5: Results of stepwise logistic regression analysis of factors affecting violence committed by study students

<table>
<thead>
<tr>
<th>Area</th>
<th>Deira</th>
<th>Bur Dubai</th>
<th>Adjusted OR</th>
<th>95% C.I. LCL</th>
<th>95% C.I. UCL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>P</td>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>Male</td>
<td>0.003</td>
<td>1.57*</td>
<td>1.16</td>
<td>2.11</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td></td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Days of school absenteeism due to feeling unsafe</td>
<td>Not at all</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>0.101</td>
<td>1.45</td>
<td>0.93</td>
<td>2.25</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.001</td>
<td>3.26*</td>
<td>1.63</td>
<td>6.54</td>
</tr>
<tr>
<td></td>
<td>4+</td>
<td>0.034</td>
<td>4.39*</td>
<td>1.12</td>
<td>17.25</td>
</tr>
<tr>
<td>Carry sharp tools in school</td>
<td>No°</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>0.001</td>
<td>3.05*</td>
<td>1.56</td>
<td>5.97</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>0.000</td>
<td>4.52*</td>
<td>2.41</td>
<td>8.46</td>
</tr>
<tr>
<td>Colleagues carry sharp tools in school</td>
<td>No°</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>0.000</td>
<td>2.34*</td>
<td>1.55</td>
<td>3.55</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>0.000</td>
<td>2.22*</td>
<td>1.50</td>
<td>3.29</td>
</tr>
<tr>
<td>Feelings toward father</td>
<td>Love</td>
<td></td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fear</td>
<td>0.036</td>
<td>2.13*</td>
<td>1.05</td>
<td>4.31</td>
</tr>
<tr>
<td></td>
<td>Normal</td>
<td>0.120</td>
<td>1.38</td>
<td>0.92</td>
<td>2.08</td>
</tr>
</tbody>
</table>

Total No. of students included in the model = 872
© = reference category * P < 0.05
Discussion

From a different perspective, children involved in bullying were found to be more likely to have poor scholastic performance in terms of attitudes toward school, grades, and absenteeism (Nishina et al., 2005).(13) Victims more commonly reported to dislike and avoid school, whereas bullies are more likely to drop out of school.(14) They may have problems with attention, behavior, and emotional control that interfere with their abilities to learn at school.(13)

A considerable percent of the study students were found to carry sharp tools in school settings (13.3% of students and by colleagues in 32.9%); this might be due to feeling unsafe and the need to defend themselves against violent acts of others. It was found to be a risk factor of committing violence and consequently of being a victim of violence. Explicitly, carrying sharp tools at school settings is tantamount to violence. A study done in southern California to detect variables associated with weapon - carrying among young adolescents (15) found a consistent relationship between bullying and violent behavior. Victimized students were more likely to be perpetrators; boys who had been victimized were more likely to carry weapons than those not previously victimized. This is explained by the cycles of violence i.e. exposure to violence leads to inducing violence; also pain leads to aggression for revenge.

Samms-Vaughan et al., (2005) (16) conducted a study to detect exposure of Jamaican school children to violence, and stated that the carrying of weapons was reported by 8.1% of children. In their study, Mahmud et al., (2005) (17) reported that 43% of the studied students witnessed other pupils bringing weapons to school. Also Muula et al., (2008)(18) investigated the variables associated with self-reported history of weapon carrying on school property among high school students in the United States; they found that 10.2% of males reported carrying a weapon on school property.

Among habits, whiling away the hours in front of the TV or playing computer games as well as the favorite programs were investigated. Students who spend a long time watching TV programs or playing computer games, especially those who favor violent programs such as boxing or wrestling, were found to be at high risk of being a candidate of a violence either as a victim or as a perpetrator. The theory saying “aggression is a learned behavior” explains these findings. Youssef et al., 1999(19) in Alexandria , found that students who preferred violent TV programs were more likely to induce violence and are nearly 5 times more likely to initiate a physical assault compared with those who did not have a preference for such programmes. An Egyptian study on preparatory and secondary school students revealed that the prevalence of aggressive behavior was 13.9% among students regularly watching TV; the majority of them prefer high anxiety type TV programs.(20) Gentile and Stone (2005)(21) determined the multiple effects of video games. They reported that the evidence supports hypotheses that violent video game play is related to aggressive affects, physiological arousal, aggressive cognitions, and aggressive behaviors.

These results are also consistent with Boxer et al., (2009)(22) who conducted a study upon 820 adolescents to examine the relation of violent media use to involvement in violence and general aggression. They observed that adolescent violent media preferences contributed significantly to the prediction of violence and general aggression. This effect of media on violence may be due to desensitization which is a well-documented effect of viewing violence that leads to emotional disturbance and less sympathy for the victims of violence .(23) Also there was consistent evidence that violence in television, film and video, and computer games has substantial short-term effects on arousal, thoughts, increasing the likelihood of imitation that is interpreted into aggressive or fearful behavior in younger children, especially in boys . (24) There is continuing debate on the extent of the effects of media violence on children and young people, and how to investigate these effects. (24) Also, students who practice violent contact sports such as karate, football or basketball were found to be at more risk of being included in violent acts either as a victim or as a perpetrator. The risk increases among those who practice these exercises three times or more per week.

Smoking was among the risk factors that contributed significantly to violence among study students. About 7% of the students were smokers who were found to be at almost double the risk of being violated or committing violation against others. Rudatsikira et al., (2007) (25) found in Namibia that both male and female smokers were more likely to engage in physical fighting than those who are not smokers.

In no doubt, the stepwise logistic regression analysis of risk factors of violence ultimately revealed that boys are usually candidates of violence acts either as perpetrators or as victims with almost three times the risk of being victims among students younger than 13 years old. Carrying sharp tools at school setting either by students or by a friend was also encountered among the risk factors contributing to violent acts. Because of revenge, insulting friends and circulating rumours against them, were risk factors for being violated by those friends, while fear of father seemed to be a motivating factor behind committing violence against colleagues. Students at governmental schools had higher risk of being victims of violence compared with their counterparts in private schools, also, the more the days of absenteeism the higher the risk of committing violence among the study students. Students at schools of Bur Dubai had higher risk of violating others in comparison with their counterparts in schools of Diera.

Conclusions

• Although feelings on being violated were alike among both genders, but on their reaction towards violence, girls were more peaceful. They usually have a negative response or most likely they resort to their teachers with complaints while boys tend to insult the perpetrator.
• The younger the student the higher the risk of being a candidate of violence either by committing violence or being a victim.
• Family circumstances and school environment as other possible contributing factors elaborated important relations with violence among schoolchildren in this study.
• Among habits, students whiling away long hours in front of the TV or playing computer games, favoring violent programs, practicing violent contact sports such as karate, football or basketball and smoking were found to be at more risk of being included in violent acts either as a victim or as a perpetrator.
• Students of Bur Dubai seemed to be more aggressive than those in Diera with higher risk of committing violence against others, while regarding being a victim, this finding revealed no importance.

Recommendations

Application of a comprehensive anti-violence program. For violence interventions to be effective they must focus beyond the violent child and the victim to include peers, school staff, parents and the community. This program can be integrated into the school health program with emphasis on the following: Special considerations must be given to students at higher risk of involvement in violence as those with family problems, and low school performance. Close supervision of the students at the school is essential for prevention and early management of violent incidents. The program should focus on all age groups with special attention towards young students, boys as well as girls. It is necessary to control the boys and teach them better ways to deal with their anger, frustration, and other ill-feelings. But it is critical to keep an eye on the girls and do the same for them. School physicians need to be trained in diagnosis and management of bullying at schools, and also in developing screening programs that may be applied by school health nurses. The school nurses must also be trained in counseling in order to be able to deal with bullies and victims, and also to counsel parents of students involved in violence.

References

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18. Muula, A.S.; Rudatsikira, E and Siziya, S.: Correlates of weapon carrying among high school students in the United States; Ann Gen Psychiatry., 2008., 7 : 8-10
Suicidal Ideation among Patients Suffering Depression

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Abstract

Background: Suicidal ideation is common among patients suffering depression. In addition, suicidal ideation is one of the challenging issues in psychiatric heath care institutions.

Aim: The aim of this paper is to provide information about suicidal ideation among patients suffering depression regarding risk factors, predictors, instrumentations and finally recommendations regarding suicidal ideation among patients with depression.

Methods: This paper is an initial review and will be expanded to use databases; Cumulative Index of Nursing Allied and Health Literature (CINAHL), Pubmed and Science Direct to retrieve the published evidence on the topic by using appropriate keywords.

Conclusion: Although several of the reviewed studies showed that risk factors were found to influence patients with suicidal ideation. In the future, research may focus on discovering useful strategies to managing and preventing suicidal ideation among patients with depression.

Key words: Suicide, Depression and Suicidal ideation

Introduction

Suicidal ideation is common among patients with depression, but it often remains undetected (Gensichen, Teising, König, Gerlach, & Petersen, 2010; Keilp, et al., 2012). In addition, Wang, et al. (2009) mentioned that Depressive disorders are a common psychiatric illness and its one of most serious symptoms is suicidal ideation or suicidal ideation.

On the other hand, suicidal ideation is likely to represent a phase preceding suicidal acts among patients suffering depression (Sokero, et al., 2006). According to Ben-Zeev, Young and Depp,( 2012) suicidal ideation is considered a dangerous step leading to subsequent suicidal behaviors. Furthermore, suicidal ideation or suicidal thoughts are a major risk factor for suicide attempts (Ben-Zeev, Young, & Depp, 2012).

The definition of suicidality is a suicidal ideation and suicidal behavior (Gensichen, et al., 2010). According to Pinninti, Steer, Rissmiller, Nelson and Beck. ( 2002) suicidal ideation is defined as the current wishes and plans to commit suicide.

Suicide attempts and suicidal ideation are major public health problem and a leading cause of death worldwide (Desseilles, et al., 2012). In addition, approximately 13.5% of the U.S. population has experienced suicidal thoughts at some point during their lives.

Therefore, the purpose of this paper is to understand the previous studies regarding risk factors of suicidal ideation among patients suffering depression; in addition to focus on the predictors of suicidal ideation among patients with depression and mention some instruments to assess the suicidal thoughts and suicidal ideation; finally, achieve the best recommendations regarding suicidal ideation among patients suffering depression.
Methods

This paper is an initial review and will be expanded to use databases; Cumulative Index of Nursing Allied and Health Literature (CINAHL), Pubmed and Science Direct to retrieve the published evidence on the topic.

Multiple words were used to search for literature on suicidal ideation among patients with schizophrenia. The following words were placed in the online indexes individually and in combination with one another: suicide, Depression and Suicidal ideation among patients with depression.

The inclusion criteria were:

1. Adult patients suffering depression.
2. Patients with suicidal ideation.
3. Articles written in English language.

Results

Based on the inclusion criteria, a total of 10 published articles were selected and formed the basis for this review. Most articles were published in nursing journals and in psychiatry journals. Because suicidal ideation is a multidimensional phenomena, there are many factors that could influence suicidal ideation in depressed patients. This review is highlighting some of the identified factors that affecting suicidal ideation among patients with depression in respect of the purpose of this paper.

Literature Review

Many studies were conducted to predict the risk factors of suicidal ideation among patients suffering depression. In addition, impact of suicidal thoughts among patients in psychiatric and mental settings and how to assess suicidal ideation among patients with depression. Firstly, I will discuss studies investigating correlations between risk factors and occurrence of suicide. Secondly, I will focus on studies concerning the predictor of suicidal ideation on depression patients. Thereafter, I will discuss studies performed with instruments to assess the suicidal ideation. Finally, I discuss recommendations regarding suicidal ideation among patients suffering depression.

Risk Factors for Suicidal Ideation on Depression

Sokero, et al. (2006) found that the decline of suicidal ideation is strongly correlated with decline of depressive symptoms and level of hopelessness. In addition, hopelessness and severity of depression are risk factors for suicidal behaviors (Sokero, et al., 2006).

Furthermore, Ortin, Lake, Kleinman and Gould (2012) found that high levels of sensation significantly increase the risk of suicidal ideation and suicide attempts of depressive symptoms and substance use problems.

On the other hand, Chellappa and Araújo (2007) showed that insomnia is the risk factor to development of suicidal ideation and suicidal plans. In addition, sleep disturbances should be considered during assessment of suicidal thoughts among patients with depression. According to Sugawara, et al. (2012) gender is considered one of the risk factors for suicidal thoughts. Moreover, male patients with depression are more likely to have suicidal thoughts.

Predictors of Suicidal Ideation

According to Gensichen, et al. (2010) severity of depression is a predictor for suicidal ideation in psychiatric and mental health care settings among patients with major depression. Additionally, physical pain may be associated with suicidal ideation. On the other hand, Ben-Zeev, et al (2012) suggest momentary ratings of sadness, tension and boredom predicted suicidal ideation in the following hours of the same day.

Instrument for Assessing Suicidal Ideation

Desselles, et al. (2012) suggested that the Hamilton scale for depression (HAM-D), and Beck’s scale for suicidal ideation are valid to assess suicidal ideation. According to (Keilp, et al., 2012) they found five items of Beck Depression Inventory (BDI) most strongly correlated with suicidal ideation. These items include subjective depression factors (sadness, pessimism, loss of interest, body image and guilt). Overall, severity of depression is more strongly linked with the presence of suicidal ideation compared with absence of suicidal ideation.

On the other hand, Pinninti, et al.( 2002) suggest that the Beck scale for suicidal ideation (BSI) is a useful self report instrument for assessing the severity of suicidal ideation in patients diagnosed with depression, schizoaffective and bipolar disorder. Therefore, approximately 90% of inpatients who are diagnosed with depression, schizoaffective and bipolar disorder may be self - administered the BSI after their thoughts of suicide are in decline.

Discussion

Literature supports the many risk factors affecting on suicidal ideation among patients suffering depression including: hopelessness, severity of depression, level of sensation seeking, insomnia , sleep problems and predominance of male patients are the main results that have been found in (Chellappa & Araújo, 2007; Ortin, Lake, Kleinman, & Gould, 2012; Sokero, et al., 2006 & Sugawara, et al., 2012). Moreover, literature supports the many predictors of suicidal ideation among patients suffering depression in the followings hours of the same day such as: sadness, tension and boredom which are the main results that have been found in (Gensichen, et al., 2010).

Additionally, literature supports the many scales assessing suicidal ideation including Beck scale for Suicidal Ideation (BSI) and Hamilton scale for Depression (HAM-D), are the main results that have been found by (Desselles, et al., 2012; Pinninti, Steer, Rissmiller, Nelson, & Beck, 2002).
Recommendation

According to the represented studies in this review paper, the following recommendations are suggested. Firstly, Beck scale for Suicidal Ideation (BSI) should be an ongoing assessment of suicidal ideation. Secondly, more studies need to be done to understand the impact of suicidal ideation among patients with depression in psychiatric settings and their families and their societies. Finally, psychiatric nurses should be educated and trained in managing and preventing of suicidal ideation in psychiatric and mental health care settings.

Conclusion

The purpose of this paper is to gain an understanding of the previous studies regarding the risk factors of suicidal ideation among patients suffering depression, in addition to focusing on predictors of suicidal ideation among patients suffering depression, and mentioning the best instrument to assess suicidal thought. Finally, we propose the best recommendations regarding suicidal ideation among depressed patients.

Several of the reviewed studies however showed that risk factors were found to influence patients with suicidal ideation. In the future, research may focus on discovering useful strategies to managing and preventing suicidal ideation among patients with depression.

References

Depression in Australia

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Abstract

Although commendable milestones have been achieved in terms of detection and management of mood disorders in the last few years, the escalating worldwide occurrence of depression is persistently challenging researchers and medics alike. The World Health Organization (WHO) has projected that by 2030, depression will represent the biggest level of disability associated with any physical or mental disorder across the world (WHO, 2004). In Australia, considerable levels of depression affect an estimated 20% of adults directly or indirectly within their lifetime, with approximately twice as many women identified with the disorder in comparison to men. Almost 80% of suicides are said to be preceded by a mood disorder. This document looks at various aspects of depression in Australia and its management.

Prevalence and statistics

The latest health ‘picture’ of the 33 OECD (Organization for Economic Co-operation and Development) countries has disclosed that Australia is currently positioned in number two as the highest prescriber of anti-depressant medicines. Based on the report, the figures of anti-depressant prescriptions in Australia seem to have doubled between the years 2000 and 2011 (www.oecd.org). In every 1,000 Australians, Eighty-nine are currently prescribed some kind of daily anti-depressant in comparison to 71 in the United Kingdom, and a standard of 56 in all OECD countries. Yet 10 years back the rate was nearer to 45. An element in the problem is that depression is an intricate condition, varying in severity, cause, biochemistry as well as outcome. Antidepressants function very well for some individuals, but for others they can be ineffective, this therefore means it is not possible to have a one-size-fits-all therapy, according to Dr Jan Orman, a General Practitioner at the University of Sydney as well as General Practitioner Services consultant for the Black Dog Institute (www.abc.net.au).

In the year 2007, 45% of Australians within the 16-85 year age bracket (or 7.3 million Australians) had, at some point in their life, been exposed to at least one of the chosen mental disorders (anxiety and mood disorders and substance use disorder). Because comparatively more men than women fall under the substance use disorder (regularly alcohol-related) at some point, men were more provable than women to have experienced a mental disorder in their lifetime. This pattern was overturned when analyzing the mental disorders in the 12 months before the commissioning of the survey, when females were more probable than men to have shown symptoms of mental sickness (22% and 18% in that order). The high rate of anxiety disorders in women was recognized as the key player in this differential among all age groups. The levels of mental illness were greater for men within the 16-34 year age bracket which represented 23% and women aged between 16-24 years representing 30% in comparison to older age groups (Australian Bureau of Statistics, 2008).

This is illustrated in Figure 1- top of next page.
Since there is so much that needs to be unraveled regarding depression, one may encounter various ways of categorizing as well as describing depression.

**Seasonal Affective Disorder (S.A.D)**

Seasonal Affective Disorder or S.A.D has not so far been categorized as a unique psychological disorder. S.A.D seems to affect a majority of individuals throughout their life and some individuals probably do not realize it. It appears to be that with the variation of seasons, people’s moods change depending on the level of sunlight or rain there is. The usual times of the year for individuals to fall into a depressive state is normally winter. The days are unusually short as well as colder; it is desolate and more unlikeable outside. The sufferer will tend to eat more and have extended sleep time, experience chronic fatigue and gain weight. In some extreme cases of S.A.D the sufferer can also have significant social withdrawal (Partonen & Pandi-Perumal, 2009).

**Mild depression**

Mild depression normally brings out symptoms that are noticeable and affect an individual's daily activities. An individual is less interested in doing things he/she previously enjoyed, has abnormal irritability, has minimized motivation at work, and home or social activities are ordinary, however he/she continues to function, just maybe not as well as he/she would usually do when in good health. Mild depression in most cases goes undiagnosed since the symptoms are not presumed to be ‘bad enough’ for individuals to think they may have depression as well as discuss it with their health providers or other people. Nonetheless, correctly diagnosing depression at the mild stage and containing it effectively at this phase can halt the condition from developing into major or suicidal depression.

There are also additional treatment choices obtainable for mild depression. Changes in lifestyle like regular exercise, recreation, making sure one has enough and regular sleep can be effective. Natural medications such as St John’s Wart could also be effective therapies for depression if it is diagnosed in time, which is when ‘mild’ (Gotlib & Hammen, 2014).

**Major depression**

Major depressive disorder is alternatively referred to as clinical depression and is also known as major depression, or unipolar depression. The term unipolar indicates the existence of a single pole, or one severe mood, also known as depressed mood. This may be put into comparison with bipolar depression which contains the two poles of depressed mood as well as mania, that is euphoria, escalated emotion and activity. In grown-ups, major depressive disorder targets twice as many women as men. For the two genders it is most prevalent in those who fall within the 25-44 years bracket, and less prevalent in those falling within the 65 year bracket. In children, major depression targets boys and girls at almost the same rate. Within an entire life, clinical depression will affect between 10% and 25% of women as well as between 5% and 12% of men. At any particular point in time, between 5% and 9% of women as well as between 2% and 3% of men are probable to be clinically depressed (Verster, Pandi-Perumal & Streiner, 2008).

**Suicidal depression**

Suicidal depression leads to considerable pain or anxiety, loss of self-esteem or feelings of unworthiness as well as guilt. In most cases the individual is unlikely to be able to carry on with work, social as well as domestic activities. Severe depression normally brings with it severe symptoms for a change to be recognizable by those near the affected individual even if that individual tries to hide how he/she...
is feeling. An individual with suicidal depression will usually experience the majority, if not all of the symptoms of clinical depression. Suicide is a unique as well as significant danger. While the individual may be controlling one moment, he can tumble very rapidly into feelings of hopelessness as well as despair. It is usual for individuals to feel that they are in some way accountable as well as 'to blame' for their feelings and conclude that others will be better off without them. Individuals with suicidal depressive episodes could also suffer from hallucinations, delusions or depressive stupor although these are not very common (Wasserman, 2011).

The under-recognized role of Dopamine in the treatment of Major Depressive Disorder

Major depressive disorder (MDD) is a widespread mental condition with a lifetime occurrence rate of 6.7% which is 3.8% for men and 7.5% for women (Waraich et al, 2004). As a disabling, repeated, as well as chronic condition, it is a key load for people, family members, communities as well as health care services (Culpepper, 2011). In 2000, depression was a recognizable cause of illness burden representing 4.4% of the total disability amended life years or 12% of all total years survived with disability in the whole world (Bech & Cialdella, 1992).

Various meta-analytic results indicate that patients with MDD might not completely respond and/or cannot completely remit after taking sufficient doses as well as a period of these antidepressants (Entsuah, Huang, Thase, 2001). Just 30% to 55% of MDD patients gain remission state at the close of severe SSRI or SNRI treatment (Entsuah, Rudolph & Chitra, 1995). Additionally, the complete dropout levels as well as the dropout levels due to difficult events are comparatively high in the margins of 25 to 39% and 9 to 17% (Papakostas, Charles & Fava, 2010), respectively, which indicates that the majority of MDD patients cannot agree to or withstand currently obtainable antidepressants (Cipriani, et al., 2009). While these antidepressants apparently affect serotonin as well as norepinephrine neurotransmitters, various lines of proof support that dopamine neurotransmitters could also play a significant role in the treatment of MDD patients (Nutt, 2006).

Regular categories of agents for the management of MDD consists of selective serotonin reuptake inhibitors (SSRIs) (Tignol, Stoker&Dunbar,1992), serotonin-norepinephrine reuptake inhibitors (SNRIs) (Entsuah, Rudolph & Chitra, 1995, Mallinckrodt, et al. 2005 ), tricyclic antidepressants (TCAs) (Storosum, et al. 2001) as well as monoamine oxidase inhibitors (MAOIs) (Papakostas & Fava,2006). The graph (Figure 2) represents Major Depressive Disorder (MDD) percentages in terms of age group.

![Figure 2: Source: ww1.cpa-apc.org.](image-url)
Not very many people know the link between nutrition and depression; what they simply know is the link between nutritional deficiencies and physical sickness. Depression is majorly and typically believed to be purely biochemical-rooted or emotionally-based. On the contrary, nutrition can play a major role in the beginning as well as acuteness and duration of depression. Deficits in neurotransmitters like serotonin, dopamine, noradrenaline, as well as \(\gamma\)-aminobutyric acid (GABA) are in most cases linked with depression (Brown, et al., 1982). As reported in various studies, the amino acids tyrosine, tryptophan, phenylalanine, and methionine are in most cases beneficial in treating several mood disorders such as depression (Firk & Markus, 2007). When taken by someone who has not eaten, tryptophan, an antecedent of serotonin, is normally converted to serotonin. Therefore, tryptophan may induce sleep as well as tranquility. This means restoring serotonin amounts lead to reduced depression hastened by serotonin deficiencies (National Institute of Mental Health, 2000).

### Nutritional Treatment Options for Depression

Mounting evidence indicates that in some patients having depressive disorders a neurodegenerative procedure may happen, highlighting the significance of early as well as aggressive involvement. Serotonin (5-HT), as well as norepinephrine (NE), neurotransmitter systems affect neuroplasticity in the brain and the two play a role in mediating the therapeutic outcomes of the majority of currently obtainable antidepressants. Serotonin transmission from the caudal raphe nuclei as well as rostral raphe nuclei is minimized in patients with depression in comparison to non-depressed controls. Raising the levels of serotonin in these pathways, by minimizing serotonin reuptake and therefore escalating serotonin function, is among the therapeutic methods of treating depression. In mammals’ brains, dopamine neurons of the ventral tegmental section in the midbrain trigger two important dopaminergic pathways, the mesocortical as well as mesolimbic pathways (Ciraulo & Shader, 2011).

These pathways stimulate through the nerves several brain regions, such as the medial prefrontal cortex (mPFC; mesocortical and/or mesoprefrontal pathway) as well as the nucleus accumbens (NAc; mesoaccumbal or mesolimbic pathway). Significantly, molecular interferences in these brain regions are said to affect the growth of psychiatric disorders like schizophrenia, in addition to depression. GABA is created in brain cells of glutamate, and works as an inhibitory neurotransmitter implying that it bars nerve impulses. Without GABA, nerve cells shoot repeatedly as well as easily. Anxiety disorders like panic attacks, seizure disorders, in addition to numerous other conditions such as addiction, Parkinson’s syndrome, headaches, and cognitive impairment are all associated with low GABA activity (Clark, 2006).

### Common Pathways of Depression

Tryptophan: It is crucial to be aware of methods to increase their safety and effectiveness. One, the patient should be informed on drug interactions. Tryptophan must either be shunned completely or taken with care and in low doses (maybe 500-1,000 mg/day), while observing any indications of serotonin overload (serotonin syndrome). The recommended intake for Tryptophan is (5HTP) 100-200mg morning and bedtime, Vitamin B6 100mg or Activated B6(5P5) 25mg, Zinc 40mg bed time and Magnesium 250mg morning and evening.

Tyrosine: The ordinary therapeutic dosage of tyrosine recommended in studies varies from 7 g to 30 g daily. However 500-1000 mgs taken under professional supervision combined with co-nutrients is recommended.

Glutamine: Glutamine as well as GABA may be taken any time of the day as well as at bedtime, but a patient must be aware that in some individuals too much or the maximum dose of these products may cause sleepiness in the day time and too much a dose of GABA can lead to a tingling feeling in the majority of people. 500mg-1000mg combined with co-nutrients is recommended (Pizzorno & Murray, 2012). The summary is tabled on the opposite page.

### Essential Fatty Acids

Omega-3 fatty acids (\(\omega-3\) - 3FAs) belong to a group of supplements which depressed patients take. Docosahexaenoic acid (DHA) as well as eicosapentaenoic acid (EPA) happen to be the two important long chain \(\omega-3\)FAs believed significant in depression. Epidemiological as well as treatment research has indicated that dietary \(\omega-3\)FA shortage may be of etiological significance in depression. It has been said that depression is conversely associated with long-term \(\omega-3\) 3FA consumption in adults, the aged, as well as adolescents in Crete islands. An ecologic research has offered a highly negative relationship between fish intake and key depressive disorder commonness in various countries (Hibbeln, 1998).

### Kryptopyrroluria

This condition is explained as a situation in which the body releases unusually high levels of a substance in the urine referred to as hydroxyhemopyrrolin-2-one (HPL), normally referred to as kryptopyrrole. The biological root of this HPL is unclear, and it could be a product linked unusual hemoglobin synthesis. This condition is hereditarily confirmed. High HPL level is largely linked to zinc as well as Vitamin B6 shortage, with the two nutrients being important for neurotransmitter creation (Dittmann, 2012).
Summary

Hormones and Depression in Women

It is usual for menopause to trigger emotions of sadness as well as depression in women. There is an estimation of between 8% and 15% women in menopause undergo depression of some kind, mostly starting in perimenopause. The start of perimenopause as well as menopause leads to different physical as well as emotional indications which may cause stress, frustration, as well as ultimately depression (Agnoli, Andreoli, Casacchia, Cerbo, 1976). These indications, combined with an already full pack of duties in a family, work and resources may seem too much for a woman to deal with. It does not help that the majority of women are afraid of menopause throughout their lives because of the scary stories that are narrated by friends as well as family members (Keyes & Goodman, 2006).

Conclusion

With respect to the above information, it is therefore important to understand that depression is a complicated condition, changeable in severity, cause, biochemistry as well as outcome. Also worth noting is that antidepressants function very well for some individuals, but for others they can be ineffective. This therefore means it is not possible to have a one-size-fits-all therapy. This document also quotes a report on the current outlook of the 33 OECD (Organization for Economic Co-operation and Development) countries and has disclosed that Australia is currently positioned in number two as the highest prescriber of anti-depressant medicines. Based on the report, the figures of anti-depressant prescriptions in Australia seem to have doubled between the years 2000 and 2011.

References


Telepsychiatry

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Introduction

According to the World Health Organization (WHO) in 2011, mental health is a state of well-being in which every person recognizes his or her own possibility, can overcome the normal stresses of life, can act productively and profitably and is able to make a contribution to her or his own community. While, mental illness has become a significant worldwide health issue in recent years; more than 450 million people suffer from mental disorders (WHO, 2010).

Although no health without mental health becomes a theme nowadays, the availability of specialists is limited for psychiatric patients in remote areas, especially during psychiatric emergencies. Furthermore, there is an extreme shortage of mental health professionals in low-income countries (approximately one psychiatrist per two million people and one psychiatric nurse per 200,000 people), which make the mental health interventions and care not implemented simply by specialists (Ventevogel, Jordan, Reis, & Jong, 2013).

In Jordan, exact numbers of human resources for mental health are unknown for both the public and private sectors. However, WHO estimates that in 2010 there were 1.09 psychiatrists, 0.54 other medical doctors (not specialized in psychiatry), 3.95 nurses (both associated and registered nurses, not specialized in mental health), 0.27 psychologists, 0.3 social workers, and 0.09 per 100,000 inhabitants.

Today telepsychiatry is one of the most popular applications for telemedicine through videoconferencing (Cash, 2011). It is the providing of health care and the exchange of information to provide psychiatric services across distances through any form of electronic media (Wootton, Yellowlees, & McLaren, 2003). Mental health services via videoconferencing tele-mental health has become an increasingly routine component of mental health service delivery throughout the world.

The purpose of the current paper is to examine and evaluate the effectiveness of telepsychiatry by real-time videoconferences (VC).

Literature review

Mental health care through telepsychiatry becomes more accessible and affordable for those who are at present out of direct reach of such services, whether that is because they are bed limited, phobic or paranoid, school and college students, living in a remote area, or even in prison (Wootton, Yellowlees, & McLaren, 2003; Deslich, Stec, Tomblin, & Coustasse, 2013).

Deslich, Thistlethwaite, and Coustasse (2013) in their study found that telepsychiatry improved access to mental health services for inmates, which help the continuum of mental health care, and increase quality of that care. Furthermore, telepsychiatry, by real-time videoconferences (VC), is supposed to provide advanced advisory services and educational initiatives to areas with lack of psychiatrists (Trondsen, Bolle, Stensland, & Tjora, 2012).

Lizana and Mayorga (2010) in their systematic review which was conducted to evaluate the effectiveness of videoconferencing in mental illness interventions demonstrated that there is a strong hypothesis that videoconference-based treatment obtains the same results as face-to-face therapy, and that telepsychiatry is a beneficial alternative when face-to-face therapy is not possible. Moreover, many studies provided positive results for telepsychiatry outcomes which include: Quality of life, patient satisfaction, and treatment adherence. But, in order to implement such technologies there is a need for adequate resources, especially financial, administrative support, and policy support (Mair et al., 2012).
Quality of Care

Bee et al. (2008) in their systematic review found that remote therapy (telepsychiatry) has the chance to overcome some of the barriers of the traditional psychiatric therapy services. The researchers demonstrated that the available evidence for telepsychiatry quantity and quality of care is limited and the traditional wisdom still (indicates) however that psychiatric therapy should be delivered face-to-face. While, in another systematic review, the researchers found that 21 (58%) of the studies found outcomes were not significantly different (Wade, Karnon, Elshaug, & Hiller, 2012).

Wynchank and Fortuin (2010) in their study elucidated that comparisons between VC versus face-to-face intervention show similar success rates for cognitive behaviour therapy and psychotropic medication administration. Moreover, the researchers explained that telepsychiatry is favored in compliance for both the medication plan and follow-up appointments. Further, telepsychiatry has been shown to be effective in maintaining quality of care across several different populations (Deslich, Stec, Tomblin, & Coustasse, 2013).

Several factors make the assessment and treatment of psychosis particularly well suited for VC. First, as psychotic patients are often hospitalized, VC permits patients to be connected with their specialists without need for travel. Second, assessment and treatment using VC is also a potential solution for patients with psychosis living in remote or underserved areas where there is a shortage of specialists (Sharp, Kobak, & Osman, 2011). Over and above, it reduces significantly the time of patients in hospitals, without decreasing the continuous monitoring of patients. Moreover, it facilitates the interaction between patient and doctor through using web application (Alcala, Munoz & Fierro, 2013).

Cost of Telepsychiatry

In order to discuss telepsychiatry’s cost, it is necessary to take into consideration which technology types are used. The author means that technologies vary in their cost (for example videoconferencing versus telephone).

Wade, Karnon, Elshaug, and Hiller (2012) in their systematic review found that 22(61%) of the studies found telehealth to be less costly than the non-telehealth alternative, 11(31%) found greater costs and 3 (9%) gave the same or mixed results. Moreover, Deslich, Thistlethwaite, and Coustasse (2013) in their review to determine the cost of providing mental health care in correctional facilities; found that use of telepsychiatry saved correctional facilities from $12,000 to more than $1 million.

Telepsychiatry is comparable to conventional treatment in outcomes, and it is time and cost savings, since less-to-no travelling is required (Alcala, Munoz & Fierro, 2013; Wynchank & Fortuin, 2010; Deslich, Stec, Tomblin, and Coustasse, 2013; Richardson, Frueh, Grubaugh, Egede, & Elhai, 2009).

Interestingly, Doolittle, Spaulding, and Williams (2011) in their longitudinal study demonstrated that utilization of telepsychiatry led to a 40 percent reduction in costs, further, Spaulding et al. (2010) in their cross-sectional study found that utilization of telepsychiatry led to a 70 percent reduction in costs.

Satisfaction and Acceptance

Most patients of all ages, from children to geriatrics, gave telepsychiatry high levels of satisfaction (Wynchank & Fortuin, 2010; Sharp, Kobak, & Osman, 2011; Trondsen, Bolle, Stensland, & Tjora, 2012). Due to its acceptance, school systems have begun to use counseling services for school-aged children while they are on their school's campus. It has been predestined that around 15 percent of school-aged children experience some mental illness and would benefit from psychiatric services (Deslich, Stec, Tomblin, & Coustasse, 2013).

Moreover, many inmates seem to prefer this form of treatment because of increased access to the psychiatrist, and they experienced greater access to care because practitioners and clinical staff involved in patient care have been able to use the same videoconferencing capabilities to coordinate the care. Additionally, they are satisfied with telepsychiatry treatment for services including: Initial treatment evaluation, consulting, medication management, and psychotherapy (Deslich, Thistlethwaite, Coustasse (2013).

An important point is, when the wait time for the patients is decreased in the emergency departments, they will become more satisfied with such services and vice versa.

Stone, Rogers, Kruckenberg, and Lieser, (2012) in their study found that the average wait time for adult patients with a primary psychiatric diagnosis in the emergency department, once the decision to admit was made until placement into an inpatient psychiatric bed or transfer to an appropriate level of care, was 10.05 hours. Also the average wait time for pediatric patients with a primary psychiatric diagnosis was 12.97 hours, which is definitely decreased by telepsychiatry.

Supplementarily, patients reported a high level of satisfaction and willingness to use telepsychiatry and they recommended it to others. Patients preferred telepsychiatry through their mother tongue, rather than interpreter-assisted care (Mucic, 2010).

Telepsychiatry in Jordan

Unfortunately, there are no studies regarding this topic in Jordan. After searching in the Ministry of Health hospitals, the Royal Medical Services hospital (Marka), and the private hospital (Al Rashid), there seems to be no telepsychiatry in Jordan. As discussed previously, there
e is a shortage in mental health professionals (physicians and psychiatric nurses). In Jordan, mental health situation is not better than its neighbors.

There are just four mental hospitals; two of the hospitals are operated by the Ministry of Health (National Center for Mental Health and Karama), one is a Royal Medical Services hospital, and one is a private hospital (Al Rashid), and they are located in the capital (Amman). Furthermore, there are two outpatient clinics at the Royal Medical Services and one at Jordan University, and only 3 (5%) outpatient facilities are for children and adolescents (WHO, 2011).

Additionally, human resources are unevenly distributed, as a large proportion of mental health professionals work in mental hospitals near the capital city, where only 36% of the population live (WHO, 2011). Regrettably, in the 1980s, the Royal Medical Services had a psychiatric inpatient unit within the general hospital. However it was later removed and a small psychiatric hospital with 43 beds was built instead. So far, and based upon the facts that there are no psychiatric wards within the hospitals, lack of community centers, and shortage in health care providers, telepsychiatry appear to be potentially effective if implemented in Jordan.

Discussion

The initial use of telemedicine was first documented in the late 1959 at the Nebraska Psychiatric Institute, when a Nebraska psychiatrist connected to a prison over 150 miles away using closed circuit television to provide mental health services to the prisoners (Whitten, Holtz, & LaPlante, 2010). At that time, telemedicine was separated into two divisions: Synchronous (psychiatrist visits were performed in real-time crossing a geographic distance by using a system of cameras, televisions and videoconferencing technology) and asynchronous (patient images or data can be recorded at one point in time and viewed by a specialist at another time and location). It means that telehealth can be carried out synchronously (real-time), where the participants react with each other simultaneously, and asynchronously (store-and-forward), in which data such as X-rays or photographs are collected, transmitted, and then utilized at a later time (Wade, Karnon, Elshaug, & Hiller, 2012).

Telepsychiatry technologies vary including, but not limited to, telephone, e-mail, remote-access technology, and real-time videoconferencing (Cash, 2011; Deslich, Stec, Tomblin, & Coustasse, 2013). Telepsychiatry is continuing to grow due to the expansion of broadband infrastructures and the reduction of technology costs. Furthermore, telepsychiatry has been successfully used for patients with posttraumatic stress disorder, depression, panic disorder and/or agoraphobia, Alzheimer’s disease, schizophrenia, and other mental-health conditions (Alcalá, Munoz & Fierro, 2013).

Benefits of Telepsychiatry

It becomes obvious that telepsychiatry is useful for patients who are living in isolated or rural areas with a shortage of psychiatrists or other mental health professionals, and the use of VC has led to a reduction in the need for patients and professionals to travel, and a reduction in hospitalizations. Telepsychiatry is more beneficial than traditional therapy (face-to-face sessions) when dealing with patients prone to violence or who are afraid of leaving home for treatment, so therapy is performed in the comfort of home and it promotes family interaction with the patient (Alcalá, Munoz & Fierro, 2013). Moreover, these applications have increased the patients’ access to treatment, heighten patients’ satisfaction, save time and decrease patients’ travel needs, and when patients are satisfied with their level of care, they are more susceptible to follow treatment procedures and acquire good care. (Trondsen, Bolle, Stensland, & Tjora, 2012).

Boydell, Volpe, and Pignatiello (2010) found that videoconferencing alleviated the patients’ anxieties regarding their encounter with a psychiatrist. Further, a benefit of emergency telepsychiatry is that it increases provider safety when assessing potentially dangerous patients (Shore, Hilty, & Yellowlees, 2007). Interestingly, telepsychiatry can be used for training in clinical supervision; educating the patient, family and health care providers and under- and postgraduate student instruction.

Another possible advantage results from the excluding effects of videoconferencing, which can offer a sense of security and encourage honesty, particularly for schizophrenic and agoraphobic patients; these effects might be due to the fact that videoconferencing is regarded as being less threatening than personal contact, and such patients feel they can leave at any time, with little or no guilt (Wynchank & Fortuin, 2010).

A significant benefit of telepsychiatry is giving patients who were previously unable to be treated a meaning of freedom, confidence, and understanding of their psychiatric condition, also, because technology has become more affordable in society today versus a decade ago, the majority of patients are able to connect to their physician by using their own equipment at home (Deslich, Stec, Tomblin, & Coustasse, 2013). Additionally, it decreases wait time in the emergency department (Stone, Rogers, Kruckenberg, and Lieser, 2012).

Constraints of Telepsychiatry

All ability to evaluate the patient and intervene has been lost, for example; ability to smell, see and touch (telephone), ability to smell, see, hear and touch (e-mail), ability to smell or touch the patient (real time videoconferencing), and the technology makes a less intimate interaction (Cash, 2011). Further, the use of the telephone or internet will eliminate many behaviors like eye contact, physical expression, posture, physical presence and touch which lead to the
inability to get information the therapist can usually get through these behaviors, and moreover there is little or no contact between therapist and client (Bee et al., 2008).

It creates an impersonal atmosphere, unsuitable for elderly patients with sensory impairments, for treating uncooperative or paranoid patients, and in emergency situations. Telepsychiatry does not have a collaborative online environment to support exchange of formal and informal information (Alcala, Munoz & Fierro, 2013). Additionally, several barriers to telepsychiatry in emergency care exist, such as: Regulatory, financial and cultural (Trondsen, Bolle, Stensland, & Tjora, 2012). An important point is that hallmark symptoms including hallucinations, suspiciousness, and delusions of reference would lead patients to reject speaking with someone on a television screen (Sharp, Kobak, & Osman, 2011).

The primary concerns identified by patients were generally related to poor picture or audio quality (Mucic, 2010). Based on a comprehensive review of the literature, persons with psychosis react negatively to VC or experience exacerbations of symptoms, like patients with specific delusions involving television or of being monitored (Sharp, Kobak, & Osman, 2011).

Many patients may have difficulty in expressing feelings to a screen therapist. Occasionally, technical problems may affect the frequency of sessions. Such factors can affect the rate of progress, and consequently it can take longer to complete treatment for new referrals managed by telepsychiatry (Wade, Karnon, Elshaug, & Hiller, 2012).

Other potential limitations of telepsychiatry may be encountered when promoting independence in place of dependence, preserving privacy and confidentiality of patient information, obtaining informed consent and ensuring equity of access. However, these issues do not reduce significantly from telepsychiatry’s overall success (Wynchank & Fortuin, 2010). Moreover, professional resistance to new technologies, implementing and embedding new technologies of any kind involves complex processes of change at the micro level for professionals and patients and at the meso level for health-care organizations themselves (Mair et al., 2012).

Recommendations for Telepsychiatry

The first step in any telepsychiatry effort is the planning, which means determining what services will be given, to whom they will be given, and the technology used to offer them. Moreover, it is necessary to carefully evaluate whether a particular form of telepsychiatry is appropriate for a given patient, both at the beginning of the treatment relationship and periodically as treatment progresses. Health care providers should be aware of the importance of the location of the patient, both for legal and clinical considerations (Cash, 2011).

In emergency situations, the first step in developing a telepsychiatry service is to assess availability of resources to deal with psychiatric emergencies at the patient sites, including health services (outpatient, inpatient, police, other), and the parties’ expertise in handling such an emergency psychiatric situation (Shore, Hilty, & Yellowlees, 2007).

There are also legal issues, requiring clinicians to conduct a site assessment to obtain information on local regulations and emergency resources requiring clinicians to be familiar with local civil commitment regulations and have arrangements in place with local staff to initiate and assist in this regard (Sharp, Kobak, & Osman, 2011).

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References


Effects of progressive muscle relaxation on anxiety among patients with schizophrenia: an evidence based review

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Abstract
Background: Prevention and management of anxiety in patients suffering schizophrenia who received progressive muscle relaxation (PMR) are challenging issues for mental and psychiatric health care professionals in psychiatric institutions.

Aim: The aim of this article is to provide information about current knowledge of the effectiveness of progressive muscle relaxation on anxiety among patients who suffer schizophrenia.

Methods: The evidence based review used databases Cumulative Index of Nursing Allied and Health Literature (CINAHL), OVID, and PsycINFO from 2009-2013 to retrieve the published evidence on the topic by using appropriate key words.

Results: The result of this article emphasized the effectiveness of (PMR) on reducing anxiety in patients suffering schizophrenia, PMR is easily applied by patients at any time.

Conclusion: Progressive muscle relaxation is an effective method for decreasing and managing anxiety among patients who suffer schizophrenia.

Key words: progressive muscle relaxation, anxiety, schizophrenia, evidence based practice