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Mental Health Problems in Iraq: a Systematic Review

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Abstract
Objective: Most of the population worldwide is suffering from mental health problems. For the last four decades, Iraq has had a long history of wars and terrorist activities that have seriously hampered development and, therefore, there is limited research that has been carried out that focuses on the mental health of the nation, not to mention all the related psychological or other medical issues that result from poor mental health. Therefore, this systematic review aims to evaluate the prevalence and trend of mental illness in Iraq.

Materials and methods: By using the protocol of PRISMA, 33 English-language articles were searched in the major databases, (PubMed, EMBASE and MEDLINE). With the help of specific keywords such as “mental health in Iraq”, “anxiety”, “depression”, “Iraq survey”, “psychosis”, “postpartum”, “prevalence of mental illness in Iraq”, “prevalence of mental disorders in Iraq”. 14 arti-
cles were finally selected for further data extraction.

Results: Findings revealed that many different factors are responsible for the mental health problems, such as violence, war, people with diabetes, stressful environments, infertile women, parents of children with cancer, and old age. Topics such as child and adolescent mental health include hospital-based studies on the psychiatric problems of children, community-based inves-
tigations on the mental health of minority groups, the prevalence rate among different age groups within the child and adolescent population, and studies on prevention and intervention strategies for boosting mental healthcare should all be considered for further investigation.

Conclusion: This systematic review indicated that research into the mental health field needs to be regarded as a priority focus for the country. Though major factors have been identified, there is an uneven distribution of the present mental health situ-
ation and published studies.

Keywords
Systematic Review, Iraq, Mental Health, Study Trends, Depression, PTSD, Anxiety, War, Conflicts

INTRODUCTION

Iraq is a country in the Middle East with a largely Muslim population of 41 million (Rudaw, 2021). For more than four decades, the Iraqi nation has lived through extremely difficult conditions, including political repression, community violence, and prolonged conflict, such as traumatic events that produce a large adverse impact on physical and mental health (Al-Shawi, 2017). Mental health services in Iraq have historically been highly centralised in urban areas and hospital-based, with 1 psychiatrist per 300,000 people before 2003 falling to 1 per million until recently (Sadik et al., 2010). Recently, the main factor that impacts the mental well-being of Iraqi people is internal displacement, especially during the invasion of the Islamic State of Iraq and Syria (ISIS) (IOM, 2019). The United Nations High Commissioner for Refugees (UNHCR) has reported that by the end of 2014, about 1.8 million of the population was internally displaced but this number reduced to 1.1 million in 2021 (UNHCR, 2021, 2014). However, many studies have been conducted among Internally Displaced People (IDP) to examine their mental disturbances. In general, the studies have shown a wide range of mental health problems in the Iraqi population. As reported by the Iraq Ministry of Health, a mental health survey revealed that there were high levels of psychological distress in the population (WHO, 2009).

As mentioned earlier, Iraqi society has experienced years of turmoil and suffering and social upheaval due to long periods of violent conflict; therefore, the humanitarian agencies have played an important role in providing mental health services for Iraqi people. In this regard, in 2009, Médecins Sans Frontières, in collaboration with the Iraqi Ministry of
Health, launched a programme aimed at opening up access to psychological counselling and at catalysing the integration of mental healthcare as a crucial component of the Iraqi health system (Doctors Without Borders, 2009). In Iraq, often there is a very negative public perception about mental health problems and misunderstanding of conditions (Sadik, S. et al., 2010).

The present wealth of global data about mental health and research trends on issues mainly found in developed countries located in western societies, but there is a dearth of information regarding less affluent countries. Different societies might have different perceptions regarding mental health issues and their causes. Data from western societies indicates that genetics and trauma (a combination of biological and environmental factors) (Gaebel, et al., 2002) are the main sources of mental health problems.

Data obtained from Africa indicates that many people think that supernatural causes are the main source of mental illness (Gureje et al., 2005). Therefore, cultural factors are a key to understanding mental health issues and the development of psychiatric services in any society (Al-Issa, 2000). Understanding the research trends in the field of mental illness might help with understanding the situation of mental health in the present-day Iraqi society. Furthermore, perceptions and attitudes towards mental illness are complex and under the influence of many factors, and the main aim of the present review is to understand the degree to which studies revealed these attitudes and understanding in their findings.

The PRISMA guidelines for the review article have been developed and is used to improve the reporting of the systematic review. Besides PRISMA guidelines, there are many other techniques to assess the methodological quality of the systematic review.

The Prisma protocol mainly consists of Cochrane authors, who developed the PRISMA guidelines in 2009 (Fleming et al., 2017). In a systematic review, we have extensively scanned all possible reports that have been published that can be used to find the possible answers to the research questions and then applied exclusion and inclusion criteria to identify and extract the relevant data to conclude the major findings. The PRISMA protocol is one of the best-suited guidelines for the review article compared to any other techniques (Selçuk, 2019).

**METHODS**

By following the guidelines for reporting and conducting meta-analysis and a systematic review of observational studies in epidemiology (meta-analyses of observational studies in epidemiology – MOOSE) (Stroup et al., 2000). We used the PRISMA guidelines (Liberati et al., 2009) for the preferred reporting items for the meta-analysis and systematic review.

**Conceptual definition**

**Systematic review:** “a type of review which presents a summary of the literature associated with the medical condition and that uses explicit and reproducible methods to critically appraise, systematically search and synthesise on the particular issue” (Gopalakrishnan et al., 2013).

**Mental disorders/conditions**

“can be defined as a health condition that changes a person’s feelings, thinking, behaviour (or all three) and that results in personal distress and difficulty in functioning” (NIH, US, 2007).

**Inclusion and exclusion criteria**

Articles included in the study were dated from 2007 to 2020, and those that applied probabilistic epidemiological approaches or a census to obtain a national or regional general population sample in Iraq. This review was limited to the study that reported primary data, but no specific age groups were the target. Further studies included in the research must possess the following characteristics.

1. Studies that were carried out and that lasted between 6 and 12 months, and lifetime estimates of common mental disorders prevalence.
2. Use a structured psychiatric diagnostics interview either as a part of a two-step interview or the whole population.
3. In these studies, one or more of the relevant common mental disorders identified according to the international diagnostic criteria (“DSM-III-R, DSM-III, DSM-IV, ICD-8, ICD-9 and ICD-10”).
   a. One of the major disorders of depression includes depressive episodes or a group of mood disorders.
   b. A combination of the two major disorders of anxiety (panic disorder-agoraphobia, PTSD, obsessive-compulsive disorder, generalised anxiety disorder, social phobia, acute stress disorder, not otherwise specified).
   c. Alcoholic disorders and other drug abuse disorders.

The focus on individual studies and their designs showed considerable variety. However, the researcher did not apply any further selection of papers concerning study type, quality and limitation by time, as this would reduce the number of papers considerably and would, therefore, have restricted the current already limited overview of measuring mental health problems in Iraq.

**Data source and search**

English-language articles were searched using major searched databases such as PubMed, EMBASE and MEDLINE.
Besides this, Science Direct, Google Scholar, and local Iraqi journals complete were also separately searched, with the help of specific keywords like “mental health in Iraq”, “anxiety”, “depression”, “Iraq survey”, “psychosis”, “postpartum”, “prevalence of mental illness in Iraq”, “prevalence of mental disorders in Iraq.”

**Extraction of information**

First of all, the abstracts of all 33 articles were screened by the author and those who did not fall in the eligibility criteria were removed. All those that fall into the criteria were screened fully for data extraction. Table 1 shows the detail of the selected articles. The focus of the study extraction is to focus on the type of study, its purpose and characteristics of the subjects, results, conclusion and limitations. Additional information like sample size, recruitment design, the time frame of diagnosis years of the work, the age range of the respondents and the applied nomenclature of the diagnosis (DSM-III, DSM-III-R, DSM-IV, ICD-10) and the survey of the country.

**RESULTS**

Literature regarding mental health in Iraq is limited. However, initially, 33 papers were screened, and 14 papers were included in the study. The detail of the searches can be seen in Figure 1. Papers that have been assessed include these areas: (6 papers), on depression (but two of them examined the anxiety as comorbidity as well), (4 papers) such as on PTSD and trauma, (1 paper) on stress (1 paper) on anxiety disorder, (1 paper) on anorexia nervos and (1 paper) is a population survey regarding other common disorders including mood disorders, amnesia, and schizophrenia. Table 2 gives the results of the paper selection and data extraction.

**Depression**

Six studies examine depression; however, these are studies conducted with a variety of populations such as individuals with diabetes, junior physicians, children, infertile women, parents of children with cancer, as well as elderly people at home or hospice-based. As indicated in all papers, depression is common. Lafta and her team indicated that (45.5%) of Iraqi junior doctors reported depressive symptoms, and a significant association was also found between reporting depressive symptoms and exposure to violence at work (Lafta et al., 2016). According to the study by Shukrya and her colleagues, 70.5% of parents of children with cancer are depressed, and it is more common among mothers compared to fathers (Al-Maliki et al., 2016). The study by Jasim and Zainab revealed that depression among infertile women is high, which recorded 68.9%, and is significantly related to the primary type of infertility, duration of infertility, and treatment, as well as the threat of the husband’s remarriage (Al-Asadi and Hussein, 2015). After the invasion of ISIS, Iraqis were seriously affected by violence and war – the children are seriously affected by the consequence of it, which indicated that most of the children have depressive symptoms, particularly the children above the age nine who are more affected, as well as depression more common among male than female (Al-Shawi et al., 2019) and among those who lost a father (77%). In Iraq, 63% of older people have depression (Ibrahim et al., 2019).
<table>
<thead>
<tr>
<th>Authors [year]</th>
<th>City</th>
<th>Study Focus/Purpose</th>
<th>Study Type</th>
<th>Subjects</th>
<th>Gender</th>
<th>Age [mean]</th>
<th>Assessment</th>
<th>Outcome/Main Result</th>
<th>Conclusion</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jasim &amp; Zainab 2015</td>
<td>Basrah</td>
<td>the prevalence and risk factors of depression among infertile women</td>
<td>cross-sectional study</td>
<td>251 infertile women</td>
<td>251 females</td>
<td>15 - 45 years</td>
<td>the Interactional Classification of Diseases-Version 10 (ICD-10) criteria</td>
<td>The rate of depression among infertile women was high.</td>
<td>Depression was found to be prevalent in 68.9% of the study population</td>
<td>only female sample</td>
</tr>
<tr>
<td>Riyadh, Saba, Waleed, Ameel 2016</td>
<td>Baghdad</td>
<td>Association of Violence with Anxiety and Depression among Iraqi Junior Doctors</td>
<td>cross-sectional study</td>
<td>323 junior resident doctors</td>
<td>male: 178 female: 145</td>
<td>24 - 39 years</td>
<td>the Center for Epidemiologic Studies Depression Scale (CES-D)</td>
<td>high prevalence of anxiety and depression among junior doctors</td>
<td>The study revealed a high prevalence of anxiety and depression among junior doctors, that might be due to the high pressure they are exposing to in their job, their daily living with high risk, and their gloomy future.</td>
<td>low number of subjects</td>
</tr>
<tr>
<td>Maha, Lava 2012</td>
<td>Sulaimania</td>
<td>effects on avoiding high-calorie foods and routinely in extensive exercise as trigger of</td>
<td>case report</td>
<td>one anorexic</td>
<td>male</td>
<td>14 years</td>
<td>case history</td>
<td>symptom description</td>
<td>The influence of culture on the development of AN</td>
<td></td>
</tr>
<tr>
<td>Hadi 2015</td>
<td>Diwaniya</td>
<td>Prevalence of Anxiety among Al-Qadisia Medical Students</td>
<td>cross-sectional study</td>
<td>290 medical students</td>
<td>male: 101 female: 189</td>
<td>19 - 22 years</td>
<td>Anxiety criteria based on ICD10 and DSM5</td>
<td>high prevalence of anxiety medical students</td>
<td>Medical education is perceived as stressful.</td>
<td>selected sample, difficult to generalise</td>
</tr>
<tr>
<td>Eman 2017</td>
<td>Salahuddin</td>
<td>estimate the prevalence of posttraumatic stress disorder among internal displaced people</td>
<td>cross-sectional study</td>
<td>97 of displaced people</td>
<td>male: 58 female: 29</td>
<td>18 - 29 years</td>
<td>Harvard Trauma Questionnaire (HTQ) along with DSM5 PTSD criteria</td>
<td>PTSD was more common disorder among IDPs</td>
<td>most of the displaced people have diagnosed with post-traumatic stress disorder due to the displacement</td>
<td>selected sample, difficult to generalise, short study duration</td>
</tr>
<tr>
<td>Authors (year)</td>
<td>City</td>
<td>Study Focus/Purpose</td>
<td>Study Type</td>
<td>Subjects</td>
<td>Gender</td>
<td>Age (mean)</td>
<td>Assessment</td>
<td>Outcome/Main Result</td>
<td>Conclusion</td>
<td>Limitations</td>
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<tr>
<td>Ameel, Nesif, Jawad, Diar 2011</td>
<td>Baghdad</td>
<td>report on the prevalence of posttraumatic stress disorder (PTSD) among university students</td>
<td>Preliminary Report</td>
<td>319 university students</td>
<td>male: 28</td>
<td>18-24 years</td>
<td>Harvard Trauma Questionnaire (HTQ) along with DSM IV PTSD criteria</td>
<td>High prevalence of PTSD was revealed among students</td>
<td>PTSD symptoms were positively associated with the number of traumatic events</td>
<td>minor sample differences, difficult to generalize</td>
</tr>
<tr>
<td>Ahmed, Faris, Riyadh, Yousef 2017</td>
<td>Baghdad</td>
<td>the prevalence and determinant of mental disorders (MDs) among elderly</td>
<td>cross-sectional study</td>
<td>362 elderly</td>
<td>male: 221</td>
<td>60 - 70 years</td>
<td>Kessler Psychological Distress Scale (K10) and other WHO- accredited tools</td>
<td>The prevalence of MDs among elderly people was statistically significant</td>
<td>mental health problems among elderly people among those residing in the nursing homes were high</td>
<td>the differences between socio-demographic data and characteristics between both samples</td>
</tr>
<tr>
<td>Ameel, Abdirahman , Mohammad, Russul, Mohammad 2018</td>
<td>Al-Anbar</td>
<td>examine the prevalence of stress among medical students</td>
<td>cross-sectional study</td>
<td>296 students</td>
<td>male: 117</td>
<td>17 - 27 years</td>
<td>the Kessler10 Psychological Distress instrument (K10)</td>
<td>There is a high level of stress among medical students had been found</td>
<td>Medical Students expose to stress during their studies</td>
<td>selected sample, difficult to generalize</td>
</tr>
<tr>
<td>Abbas, Mansour 2007</td>
<td>Basra</td>
<td>prevalence of comorbid depression among a sample of patients with type 2 diabetes mellitus</td>
<td>cross-sectional study</td>
<td>206 patients</td>
<td>male: 59</td>
<td>31 - 57 mean age of both control and experimental group</td>
<td>Center for Epidemiological Studies Depression Scale (CES-D)</td>
<td>Diabetic was having a higher score for depression than the control</td>
<td>diabetic patient’s mood disorders especially depression</td>
<td>Study limitations; this study was undertaken during the difficult days of civil war in Iraq which properly reflected in the highest depression score and The study population was not homogenous,</td>
</tr>
<tr>
<td>Authors (year)</td>
<td>City</td>
<td>Study Focus/Purpose</td>
<td>Study Type</td>
<td>Subjects</td>
<td>Gender</td>
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<td>Assessment</td>
<td>Outcome/Main Result</td>
<td>Conclusion</td>
<td>Limitations</td>
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<tr>
<td>Asma, Shatha 2007</td>
<td>Mosul</td>
<td>The present study aims to measure the point prevalence of mental disorders among children of 1-15 years age</td>
<td>cross-sectional study</td>
<td>3079 children</td>
<td>male: 1698 female: 1381</td>
<td>1 - 15 years</td>
<td>standardized questionnaire form. The items on this form included the diagnostic criteria taken from DSM-IVTR2000</td>
<td>Childhood mental disorders are a common condition highly prevalent amongst the children and early adolescents in Mosul</td>
<td>childhood and adolescence more vulnerable to be impacted by conflict and war, mental disorders are common conditions affecting children and early adolescents in Mosul</td>
<td>bias and selected sample, difficult to generalize</td>
</tr>
<tr>
<td>Al-Shawi, Lafta, Al-Youzbaki, Khalil 2019</td>
<td>Mosul</td>
<td>estimate the prevalence of depression symptoms among children</td>
<td>cross-sectional study</td>
<td>300 children</td>
<td>male: 157 female: 143</td>
<td>5 - 15 years</td>
<td>the Center for Epidemiological Studies Depression Scale for Children (CES-D)</td>
<td>The high prevalence of depression symptoms had found</td>
<td>the children most vulnerable population during the conflict which they are easily being impact</td>
<td>the invalidity of data collation</td>
</tr>
<tr>
<td>Ameil 2018</td>
<td>Al-Anbar</td>
<td>Measuring the effect of displacement on the mental health of internally displaced people (IDP)</td>
<td>cross-sectional study</td>
<td>77 participants</td>
<td>male: 47 female: 10</td>
<td>9 - 33 years</td>
<td>the Center for Epidemiological Studies Depression Scale (HTQ)</td>
<td>there is high prevalence of PTSD symptoms among Internally Displaced People (IDP)</td>
<td>the risk of PTSD symptoms is increasing during displacement</td>
<td>low sample of female</td>
</tr>
<tr>
<td>Shukrya, Jasim, Akeel, Sabah 2016</td>
<td>Basrah</td>
<td>examine the level of depression among parents of children with cancer</td>
<td>cross-sectional study</td>
<td>336 parents participated</td>
<td>male: 112 female: 224</td>
<td>30 - 50 years</td>
<td>The Center for Epidemiological Studies Depression Scale</td>
<td>The prevalence of depression among the parents of children with cancer were high</td>
<td>Depression was significantly more severe among mothers compared to fathers</td>
<td>poor assessment of mood</td>
</tr>
<tr>
<td>Hawkar, Verena, Claudia, Azad, Frank 2018</td>
<td>Dohuk and Sulaymaniyah</td>
<td>examine the adversity, enslavement and war-related its impact on mental health</td>
<td>cross-sectional study</td>
<td>416 females</td>
<td>416 females</td>
<td>17 - 75 years</td>
<td>Hopkins Symptom Checklist-25 and the Kurdish version of the PTSD Checklist for DSM-5 (PCL-5)</td>
<td>Perceived social retraction seems to play a role in the relationship between trauma exposure and mental health</td>
<td>selected sample, difficult to generalize, no sample of male</td>
<td>-</td>
</tr>
</tbody>
</table>
A cross-sectional study was conducted on all elderly individuals residing in all NHs in Baghdad and an equal number of elderly people residing WF. MDs were defined based on Kessler Psychological Distress Scale (K10. However, the study by Mansour indicated that depression among patients with diabetes is high (Mansour and Jabir, 2007). The overall prevalence rate of depression rate in Iraq is 3.7% (WHO estimates, 2021).

PTSD

Because Iraq has experienced numerous ongoing conflicts, present and past, the population has been affected by many traumatic events that inevitably has impacted their mental wellbeing; the last one was the invasion of ISIS that displaced a third of the population in four big cities in Iraq (Ninewa, Salah Al din, Anbar and Kirkuk). In this literature, four studies were found which examined PTSD, three conducted among IDPs, and the last one conducted among university students. The results of all the studies showed that the percentage of PTSD is high in Iraq. In 2017, Al-khafaf reported that 18-29-year-olds in one of the Iraqi IDP camps showed the prevalence of PTSD as 67%. However, another study by Ameel revealed that only 20.8% of the IDPs had symptoms of PTSD, and there is statistically insignificant (Al-Shawi, 2018). Hawkar and his colleagues found that Yazidi women and girls who survived war and genocide met the criteria for a probable DSM-5 PTSD diagnosis and their level of PTSD is higher (Ibrahim et al., 2018) the Islamic State of Iraq and Syria (ISIS). The last study about PTSD conducted among Iraqi university students revealed that 22.9% of the respondents have symptoms of PTSD; according to Ibrahim et al., This is a high prevalence of PTSD among university students (Al-Shawi et al., 2011).

Anxiety

Most of the Iraqi population suffered from the problem of anxiety at different life stages. However, high levels of anxiety have been documented among physicians and medical students, with a prevalence rate of 47.9% (Suhail, H.J., 2015). Nevertheless, Riyadh et al., (2016) observed that more than one-half of junior doctors (50.8%) reported the presence of anxiety symptoms; according to them, there was a significant association between exposure to any sort of violence at work or outside work, and reporting anxiety symptoms (Lafta et al., 2016). The study conducted among older people (based in a hospice and/or living with family) examined the presence of anxiety and indicated that 58% of older people have anxiety. There is a significant difference between those who are based in hospice care and those who live with their families (Ibrahim et al,. 2019). Iraq, 2017. A cross-sectional study was conducted on all elderly individuals residing in all NHs in Baghdad and an equal number of elderly people residing WF. MDs were defined based on Kessler Psychological Distress Scale (K10.

Other Mental Health Problems

Despite the mentioned diseases, which are more common in Iraqi society, the researchers tried to investigate other mental disturbances as well. Maha and Lava (2012) reported the first case of an adolescent male with anorexia

Table 2: Ratio the prevalence of mental disorders

<table>
<thead>
<tr>
<th>#</th>
<th>Authors</th>
<th>Year</th>
<th>Sample</th>
<th>Disease</th>
<th>the prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jasim &amp; Zainab</td>
<td>2016</td>
<td>infertile women</td>
<td>depression</td>
<td>68.90%</td>
</tr>
<tr>
<td>2</td>
<td>Riyadh, Saba, Waleed &amp; Ameel</td>
<td>2016</td>
<td>Junior Doctors</td>
<td>depression anxiety</td>
<td>45.5% &amp; 50.8%</td>
</tr>
<tr>
<td>3</td>
<td>Abbas &amp; Mansour</td>
<td>2007</td>
<td>diabetes</td>
<td>depression</td>
<td>43.30%</td>
</tr>
<tr>
<td>4</td>
<td>Al-Shawi, Lafta, Al-Youzbaki &amp; Khalil</td>
<td>2019</td>
<td>children</td>
<td>depression</td>
<td>49%</td>
</tr>
<tr>
<td>5</td>
<td>Shukrya, Jasim, Akeel &amp; Sabah</td>
<td>2016</td>
<td>parents of children with cancer</td>
<td>depression</td>
<td>70.50%</td>
</tr>
<tr>
<td>6</td>
<td>Ahmed, Faris, Riyadh &amp; Youssef</td>
<td>2017</td>
<td>elderly people residing in NHs and those living with their families (WF)</td>
<td>Mental disorders (depression, anxiety and amnesia)</td>
<td>depression (35.4% vs 16.6%), anxiety (32.6% vs 9.9%), dementia (19.3% vs 5%)</td>
</tr>
<tr>
<td>7</td>
<td>Haukar, Verena, Claudia, Azad &amp; Frank</td>
<td>2018</td>
<td>Yazidi survivors</td>
<td>Trauma and depression</td>
<td>high levels of PTSD and depression</td>
</tr>
<tr>
<td>8</td>
<td>Eman</td>
<td>2017</td>
<td>IDPs</td>
<td>PTSD</td>
<td>67.00%</td>
</tr>
<tr>
<td>9</td>
<td>Ameel, Nesif, Jawad &amp; Diar</td>
<td>2011</td>
<td>university students</td>
<td>PTSD</td>
<td>22.90%</td>
</tr>
<tr>
<td>10</td>
<td>Ameel</td>
<td>2018</td>
<td>IDPs</td>
<td>PTSD</td>
<td>20.80%</td>
</tr>
<tr>
<td>11</td>
<td>Hadi</td>
<td>2015</td>
<td>Medical Students</td>
<td>Anxiety</td>
<td>47.90%</td>
</tr>
<tr>
<td>12</td>
<td>Ameel, Abdurahman, Mohammad, Rassul &amp; Mohammad</td>
<td>2018</td>
<td>university students</td>
<td>stress</td>
<td>77.50%</td>
</tr>
<tr>
<td>13</td>
<td>Asma &amp; Shatha</td>
<td>2007</td>
<td>children 1 - 15 years</td>
<td>childhood mental disorders</td>
<td>37.40%</td>
</tr>
<tr>
<td>14</td>
<td>Maha &amp; Lava</td>
<td>2012</td>
<td>case study/ adolescents</td>
<td>Anorexia nervosa</td>
<td>1%</td>
</tr>
</tbody>
</table>
nervosa in Iraq. This disorder is believed to be rare across cultures and uncommon for both genders in Arab countries (Younis and Ali, 2012). Regarding the prevalence of chronic stress, one study was conducted that revealed the high level of stress among medical students, in which 77.5% of them reported at least some degree of distress (Al Shawi et al., 2018) high levels of personal distress may have a negative effect on the cognitive functioning and learning abilities of medical students.

Methods: A cross-sectional study was conducted using medical students in the Al-Anbar governorate; data collection was carried out from February to March 2018. The assessment of stress levels among these students was administered using the Kessler Psychological Distress instrument (K10. Ahmed et al. (2017) indicated that 34.6% of older people suffered from amnesia (Ibrahim et al., 2019) Iraq, 2017. A cross-sectional study was conducted on all elderly individuals residing in all NHs in Baghdad and an equal number of elderly people residing WF. MDs were defined based on Kessler Psychological Distress Scale (K10. Children and adolescents are particularly vulnerable to the hugely negative mental consequences of war and violence. In a survey conducted by Asmaa and Shatha in 2007, which measured the prevalence of childhood and early adolescence mental disorders, the study indicated the prevalence of PTSD (10.5%), enuresis (6%), separation anxiety disorder (4.3%), specific phobia (3.3%) stuttering and refusal to attend school (3.2% each), learning and conduct disorders (2.5% each), stereotypic movement (2.3%) and feeding disorder in infancy or early childhood (2.0%) (Al-Jawadi and Abdul-Rhman, 2007).

**DISCUSSION**

As expected, the majority of studies on mental health problems and conditions and their prevalence in Iraq are limited and rare. Most researchers conducted studies regarding the prevalence of depression on a variety of populations such as patients with diabetes, junior doctors, children, infertile women, cancer patients, particularly with children and older people, those at home or who are hospice-based. Among these studies, infertile women and children both have depressive symptoms – children aged nine and above are more vulnerable. Depression was more common among males than females. Diabetes and depression are separate entities and are by themselves major health problems in the world. The experimental study by Abbas and Mansour (2007) indicated that a diabetic patient was more vulnerable to depression in comparison with the control group (Mansour and Jabir, 2007).

There is a correlation between psychological disturbances and health workers; accordingly, the majority of Iraqi junior doctors have symptoms of depression. This may be related to overwork and lack of sleep, dealing with death, fear of making mistakes, and loneliness, which are all implicated in levels of depression (Riyadh et al., 2016). These findings are consistent with other research from elsewhere (Naidoo et al., 2020; Outhoff, 2019). Usually, depression and other mental states impact older people differently to younger people. In older people, depression often occurs with other medical illnesses such as disabilities, and lasts longer. Depression is associated with an increased risk of cardiac diseases and an increased risk of death from illness (Suls et al., 2005). However, the commonness of depression among the parents of children with cancer is also high (Al-Maliki, S. K. et al., 2016).

The current literature reviews also aimed to spotlight the PTSD conditional risk associated with specific traumatic events that survivors of war faced. The highest percentage among age groups of the study sample was the age 18-29 years old. This age group is often used by ISIS militants because they represent youth and impressionable adulthood, and they have been used for serving the militants – female victims for satisfying their physical and sexual needs (Al-khafaf, E. S., 2017).

A high prevalence of PTSD has been revealed among students of Baghdad University, as well as a high prevalence of PTSD symptoms among IDPs. Studies conducted among IDPs may have been made directly after the ISIS attack, at least PTSD assessment needs (Ameel, 2011; Ameel et al., 2018; Eman, 2017).

Doctors with anxiety tend to depict poor work efficacy. The review indicated that 47.9% of medical students and 50.8% of physicians present severe anxiety symptoms. Factors leading to increased rates of anxiety among this group include: extensive workload, extended duty hours, over-demanding patients, scanty resources, ethical and legal issues, and traumatic or critical decision-making. Moreover, the association between anxiety and physicians and medical doctors may be related to working hours too. In Iraq, doctors working for a long period were more at risk of developing psychological challenges (Hadi, 2015; Riyadh et al., 2016).

This paper carefully defined a case of anorexia nervosa in adolescents, and this does not represent the prevalence of mental health problems in Iraq, only a minority of people who meet stringent diagnostic criteria for eating disorders are seen in psychiatric hospitals and clinics. A study by Ibrahim and colleagues indicated that 34.6% of the elderly suffered from amnesia (Ibrahim et al., 2019) Iraq, 2017. A cross-sectional study was conducted on all elderly individuals residing in all NHs in Baghdad and an equal number of elderly people residing WF. MDs were defined based on Kessler Psychological Distress Scale (K10.)
A cross-sectional study by Al-Jawadi and Abdulrahman targeted 3,079 cases in four primary health centres to examine the prevalence of mental disorders among children and adolescents between 1 to 15 years old in Iraq. The result indicated that mental health disorders are common as are the following: PTSD (10.5%), enuresis (6%), separation anxiety disorder (4.3%), specific phobia (3.3%) mostly due to family problem and genetics, stuttering and refusal to attend school (3.2% each), learning and conduct disorders (2.5% each), stereotypic movement (2.3%) and feeding disorders in infancy or early childhood (2% due to family dysfunction mostly) (Al-Jawadi and Abdul-Rhman, 2007). Overall, children between 10–15 years old recorded higher prevalence (49.2%), while the lowest was among 1–5 years old (29.1%). Boys are more affected than girls (40.2% and 33.2%, respectively).

Iraq has a long history of war affecting millions of people, including people of all ages, gender and ethnic or religious groupings. However, there are many examples of resilient people defying the odds and achieving great things, such as Maha Sulaiman Youni, who, despite all challenges in the field of mental health became the first female certified psychiatrist, which was rare and unique for that time. She shares her bibliography and has exemplified the role model of a female psychiatrist for the younger generation of medical students in Iraq (Younis and Khunda, 2020).

LIMITATIONS

As expected, the majority of studies with relevance to the investigation of mental health problems in Iraq are limited. Studies should assess the effects in larger samples and different cities. It might be relevant to assess the different social and environmental practices of mental health problems and relate these to possible differences in results. Articles selected for data extraction have a low-quality design with very few and low-quality samples, which is not sufficient to draw a particular picture. In addition, due to scarce literature on mental health problems in Iraq, specific inclusion or exclusion criteria cannot be developed.

CONCLUSION

The literature on mental health problems in Iraq is limited. This systematic review affirms that mental health is an existing problematic issue in Iraq. However, research in the field needs to be urgently prioritised. There is a crucial need for stakeholders in the Iraqi government, the health sector as well as non-profit organisations to address these mental and psychosocial issues to improve the quality of life for the Iraqi community both in the short and long term. Moreover, this study can be replaced in the future with more robust studies and risk of bias assessments.


