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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 articles 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 investigations 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 situation 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 often 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*

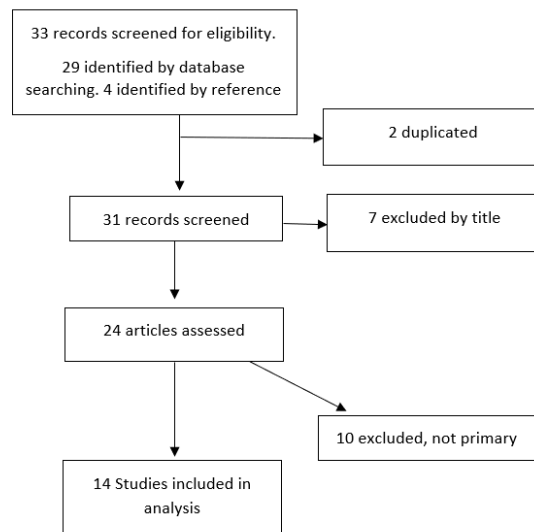
Articles included in the study were dated from 2007 to 2020, and those that applied probabilistic epidemiological approaches or a census to obtain a national or regional general population sample in Iraq. This review was limited to the study that reported primary data, but no specific age groups were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



**Figure 1:** Flow chart detailing the retrieval of included studies

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 nervosa 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, according to a study conducted after the conflicting local war, 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) Iraq, 2017.

Authors (year)	City	Study Focus/Purpose	Study Type	Subjects	Gender	Age (mean)	Assessment	Outcome/Main Result	Conclusion	Limitations
Jasim & Zainab 2015	Basrah	the prevalence and risk factors of depression among infertile women	cross-sectional study	251 infertile women	251 females	15 - 45 years	the Interational Classification of Diseases-Version 10 (ICD-10) criteria	The rate of depression among infertile women was high.	Depression was found to be prevalent in 68.9% of the study population	only female sample
Riyadh, Saba, Waleed, Arneel 2016	Baghdad	Association of Violence with Anxiety and Depression among Iraqi Junior Doctors	cross-sectional study	323 junior resident doctors	male: 178 female: 145	24 - 39 years	the Center for Epidemiologic Studies Depression Scale (CES-D)	high prevalence of anxiety and depression among junior doctors	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.	low number of subjects
Maha, Lava 2012	Sulaimania	effects on avoiding high-calorie foods and routinely in extensive exercise as trigger of	case report	one anorexic	male	14 years	case history	symptom description	The influence of culture on the development of AN	extraordinary case
Hadi 2015	Diwaniya	Prevalence of Anxiety among Al-Qadisia Medical Students	cross-sectional study	290 medical students	male: 101 female: 189	19 - 22 years	Anxiety criteria based on ICD10 and DSM5	high prevalence of anxiety medical students	Medical education is perceived as stressful.	selected sample, difficult to generalise
Eman 2017	Salahuddin	estimate the prevalence of posttraumatic stress disorder among internal displaced people	cross-sectional study	97 of displaced people	male: 58 female: 29	18 - 29 years	Harvard Trauma Questionnaire (HTQ) along with DSM5 PTSD criteria	PTSD was more common disorder among IDPs	most of the displaced people have diagnosed with post-traumatic stress disorder due to the displacement	selected sample, difficult to generalise, short study duration

Authors (year)	City	Study Focus/Purpose	Study Type	Subjects	Gender	Age (mean)	Assessment	Outcome/Main Result	Conclusion	Limitations
Ameel, Nesif, Jawad, Diar 2011	Baghdad	report on the prevalence of posttraumatic stress disorder (PTSD) among university students	Preliminary Report	319 university students	male: 28 female: 45	18-24 years	Harvard Trauma Questionnaire (HTQ) along with DSM4 PTSD criteria	High prevalence of PTSD was revealed among students	PTSD symptoms were positively associated with the number of traumatic events	minor sample differences, difficult to generalize
Ahmed, Faris, Riyadh, Yousef 2017	Baghdad	the prevalence and determinants of mental disorders (MDs) among elderly	cross-sectional study	362 elderly	male: 221 female: 141	60 - 70 years	Kessler Psychological Distress Scale (K10) and other WHO-accredited tools	The prevalence of MDs among elderly people was statistically significant	mental health problems among elderly people among those residing in the nursing homes were high	the differences between socio-demographic data and characteristics between both samples
Ameel, Abdulrahman, Mohammad, Russul, Mohammad 2018	Al-Anbar	examine the prevalence of stress among medical students	cross-sectional study	296 students	male: 117 female: 179	17 - 27 years	the Kessler10 Psychological Distress instrument (K10)	There is a high level of stress among medical students had been found	Medical Students expose to stress during their studies	selected sample, difficult to generalize
Abbas, Mansour 2007	Basrah	prevalence of comorbid depression among a sample of patients with type 2 diabetes mellitus	cross-sectional study	206 patients	male: 59 female: 147	31 - 57 mean age of both control and experimental group	Center for Epidemiologic Studies Depression Scale (CES-D)	Diabetic was having a higher score for depression than the control	diabetic patients' mood disorders especially depression	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,

Authors (year)	City	Study Focus/Purpose	Study Type	Subjects	Gender	Age (mean)	Assessment	Outcome/Main Result	Conclusion	Limitations
Asma, Shatha 2007	Mosul	The present study aims to measure the point prevalence of mental disorders among children of 1–15 years age	cross-sectional study	3079 children	male: 1698 female: 1381	1 - 15 years	standardized questionnaire form. The items on this form included the diagnostic criteria taken from DSM-IVTR2000	Childhood mental disorders are a common condition highly prevalent amongst the children and early adolescents in Mosul	childhood and early adolescence more vulnerable to be impacted by conflict and war, mental disorders are common conditions afflicting children and early adolescents in Mosul.	bias and selected sample, difficult to generalize
Al-Shawi, Lafta, Al-Youbzaki, Khalil 2019	Mosul	estimate the prevalence of depression symptoms among children	cross-sectional study	300 children	male: 157 female: 143	5 - 15 years	the Center for Epidemiological Studies Depression Scale for Children (CES-DC)	The high prevalence of depression symptoms had found	the children most vulnerable population during the conflict which they are easily being impact	the invalidity of data collection
Ameel 2018	Al-Anbar	Measuring the effect of displacement on the mental health of internally displaced people (IDP)	cross-sectional study	77 participants	male: 67 female: 10	9 - 33 years	Iraqi version of the Harvard Trauma Questionnaire (HTQ)	there is High prevalence of PTSD symptoms among Internally Displaced People (IDP)	risk of PTSD symptoms is increasing during displacement	low sample of female
Shukrya, Jasim, Akeel, Sabah 2016	Basrah	examine the level of depression among parents of children with cancer	cross-sectional study	336 parents participated	male: 112 female: 224	30 - 50 years	The Center for Epidemiological Studies Depression Scale	The prevalence of depression among the parents of children with cancer were high	Depression was significantly more severe among mothers compared to fathers	poor assessment of mood
Hawkar, Verena, Claudia, Azad, Frank 2018	Dohuk and Sulaymaniyah	examine the adversity, enslavement and war-related impact on mental health	cross-sectional study	416 females	416 females	17- 75 years	Hopkins Symptom Checklist-25 and the Kurdish version of the PTSD Checklist for DSM-5 (PCL-5)	adversity, enslavement and war-related events contribute to high levels of PTSD and depression.	Perceived social rejection seems to play a role in the relationship between trauma exposure and mental health	selected sample, difficult to generalize, no sample of male

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 had 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 Ameen 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)”.mendeley”:{“formattedCitation”:(Lafta <i>et al.</i>, 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

#	Authors	Year	Sample	Disease	the prevalence
1	Jasim & Zainab	2015	infertile women	depression	68.90%
2	Riyadh, Saba, Waleed & Ameen	2016	Junior Doctors	depression and anxiety	45.5% & 50.8%
3	Abbas & Mansour	2007	diabetes	depression	43.30%
4	Al-Shawi, Lafta, Al-Youzbaki & Khalil	2019	children	depression	49%
5	Shukrya, Jasim, Akeel & Sabah	2016	parents of children with cancer	depression	70.50%
6	Ahmed, Faris, Riyadh & Yousef	2017	elderly (residing in nursing homes (NHs) and those living with their families (WF)	Mental disorders (depression, anxiety and amnesia)	depression (35.4% vs 16.6%), anxiety (32.6% vs 9.9%), dementia (19.3% vs 5%)
7	Hawkar, Verena, Claudia, Azad & Frank	2018	Yazidi survivors	Trauma and depression	high levels of PTSD and depression
8	Eman	2017	IDPs	PTSD	67.00%
9	Ameen, Nesif, Jawad & Diar	2011	university students	PTSD	22.90%
10	Ameen	2018	IDPs	PTSD	20.80%
11	Hadi	2015	Medical Students	Anxiety	47.90%
12	Ameen, Abdulrahman, Mohammad, Russul & Mohammad	2018	university students	stress	77.50%
13	Asma & Shatha	2007	children 1 - 15 years	childhood mental disorders	37.40%
14	Maha & Lava	2012	case study/ adolescents	Anorexia nervosa	1%

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 Kessler10 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.

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