

# Estimated Prevalence of Mental Disorders Among War-Affected Population In Yemen

During the Period November 2014 – June 2017



Republic of Yemen
Ministry of Social Affairs & Labor
Family Counseling & Development Foundation



# Estimated Prevalence of Mental Disorders Among War-Affected Population In Yemen

During the Period November 2014 – June 2017

(Review and Analysis of the Data of the Psychosocial Counseling Helpline)
Issued by Family Counseling & Development Foundation
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## **ACKNOWLEDGEMENT:**

At the outset, I would like to extend my thanks and gratitude to the working group that participated in the implementation of this study, which is the first at the level of Yemen. My thanks should also be extended to the FCDF's technical and administrative team and to the Dutch government for their great support and their feeling of responsibility to the needs of the Yemeni society. I also thank the Dutch government for funding this purposeful project "The Psychological and Social Response to Yemeni People Affected by the Conflict". Without the Dutch Government's funding, this project would not have come into being.

I hope that this study will benefit everyone interested in this field and in the mental health situation and the humanitarian crisis in Yemen, including official authorities and local and international NGOs. I also hope that the findings in this study would explain the proportion and rate of prevalence of mental disorders in Yemen in the current circumstances of the country.

In conclusion, I would like to reiterate my thanks to the FCDF's working group for their extraordinary efforts to make this work a success. Beyond their success, there were their own humanitarian principles and their strong faith in FCDF and its goal. Actually, they continued to work despite the tense circumstances and under airstrikes. In particular, I should thank Mr. Abdulqodos Abdulwahab Harmmal, FCDF executive director, who has been credited with directing the work in these difficult times and for his efforts in preparing this study.

Prof. Bilqis Mohammed Jubari

Founder and Chairwoman of FCDF Sana'a – January 2018

## **ABSTRACT:**



## **Study Title**

Estimated Prevalence of Mental Disorders Among War-Affected Population in Yemen During the Period: November 2014 – June 2017



## **Authors**, Preparation:

Dr. Bilqis Mohammed Jubari

Dr. Saifaldeen Al-Meeri

Abdulqodos Abdulwahab Harmmal, and others





This study is a first and unprecedented step on the basis of a more comprehensive national survey of the prevalence and rates of mental disorders in the Republic of Yemen. The study was supervised by senior psychotherapists and psychiatrists in Yemen, led by Associate Prof. Bilqis Jubari and Assistant Prof. Saifaldeen Al-Meeri, and in participation of some prominent general practitioners and psychotherapists in Yemen during the period (November 2014 – June 2017). The study took place in the Republic of Yemen, Sana'a, Outpatient Clinics Building and Psychological and Social Counseling Helpline at Family Counseling & Development Foundation (FCDF).

## Background



Yemen suffers from a severe shortage of specialized mental health resources, needs and services. Psychiatrists are not more than 46, which means one psychiatrist per almost 600,000 persons. The number of psychotherapists is almost 130 in the whole country. While the number of psychological nurses does not exceed 25. Yemen suffers from a severe a shortage of facilities, which are clinics in public, private and rural hospitals with a total of 35 clinics, mainly located in Sana'a. Yemen also suffers from a shortage of equipment, medicine and supplies related to the provision of specialized mental health services.

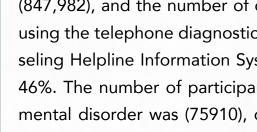


## **Overall Objective**

Estimating the prevalence of mental disorders among war-affected populations in Yemen during the period: November 2014 – June 2017

A randomized, non-incidental sample was selected for participants who

## Methodology





made a call to the Psychological and Social Counseling Helpline during the period (November 2014 – June 2017). The number of participants/callers is (847,982), and the number of completed telephone diagnostic interviews using the telephone diagnostic form in the Psychological and Social Counseling Helpline Information System was (389614), with a response rate of 46%. The number of participants who were diagnosed to have a kind of mental disorder was (75910), of whom (14098) were males, representing 19% of the sample and (61812) were females, representing 81%. For the age of the participants/callers, it ranged from 16-up. For the region, the participants/callers were from all governorates, although the ratios were different from one region to another. The obtained data was analyzed by multi-level statistical analysis using appropriate equations and the prevalence rate is then calculated.



### **Findings**

The present study found that the overall prevalence rate of mental disorders in the Republic of Yemen is 19.48%, 195 cases per 1000 cases.



#### **Discussion**

By comparing the findings of the present study with the findings of other global studies, it was clear that there is a convergence with the global percentage.



#### Conclusion

The prevalence rate of mental disorders in Yemen is among the highest rates in the world and is similar to those of countries in emergency situations.



## Contribution and funding

The study was implemented and financed by Family Counseling & Development Foundation (FCDF).



#### Conflict of interest

Given the background and history of the study financier, its authors and the participating working group, there is no conflict of interest.



#### References

The study was based on a limited number of Arab and foreign references because of the lack of previous studies related to the estimation of prevalence rates of mental disorders in Yemen.



## Place and date of preparation

Republic of Yemen – Sana'a

During the period: July – December 2017



#### **Published**

January 2018



#### **Attachments**

Findings table

## TERMS::

#### **Mental Disorder**



A situation involving changes ranging from mild to severe, including thinking, emotions or behaviors (or a combination of them), leading to an inability to cope with normal and routine life demands.

#### **Prevalence of Mental Disorder Estimations**



Surveys that provide estimates on the proportions and rates of the population who currently have or have had a specific mental disorder in a given period of time using different scaling criteria of the surveyed population at the time of the survey or at the time of the disorder; it is called a point or period of prevalence, or in earlier time of a person's life which is then called a lifelong prevalence.

## **Psychological & Social Counseling Helpline Documents**



A service provided by Family Counseling & Development Foundation (FCDF), where calls seeking psychological/social counseling services are received from the general population of the governorates of the Republic of Yemen by dialing the toll-free number (136) from any mobile or landline telephones.

## Psychological and Social Counseling Helpline Documentations and Literature



A collection of forms and database for the documentation and preservation of psychological and social counseling, including the personal data form, the mental diagnostic interview form and the psychological intervention form approved by FCDF and were prepared in accordance with the criteria of the medical history interview forms.

## TERMS::

## **Psychological Counseling Information System**



An Oracle-based software (developed by Oracle Developer) that runs on server-client system, and documents the helpline calls and consultations in a database designed in Oracle SQL, and backups periodically.

## **Automated Call Center**



An electronic system supported by Alcatel that provides automatic answering, call forwarding and distribution by group and saves incoming call data.

## Family Counseling & Development Foundation (FCDF)



Family Counseling & Development Foundation (FCDF) is an NGO specialized in mental health. It was founded on 08/01/2011.



#### Introduction

Mental health can be defined as a state of well-being enabling individuals to realize their abilities, cope with the normal stresses of life, work productively and fruitfully, and contribute to the communities. WHO

In contrast, mental disorders are defined as a state of changes ranging from mild to severe, including thinking, emotions or behaviors (or a combination of the three), resulting in an inability to cope with normal and routine life demands. Mental disorders are related to personal, family, life, social, or economic stress or excessive stress due to a particular health condition such as cancer, diabetes and heart diseases. They occur because of interaction among psychosocial, genetic, and biochemical factors.

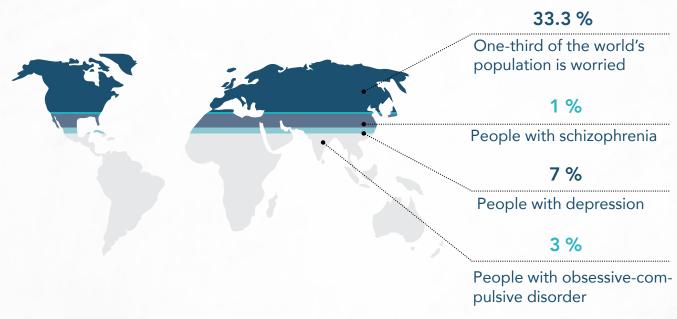
More than 200 types of mental disorders are currently known according to the classification system based on the clinical observations of symptoms, signs and diagnostic criteria. Mental disorders are classified into diagnostic categories. For example, they are classified into 22 categories according to the DSM5. The most common disorders are depression, bipolar disorder, dementia, schizophrenia and anxiety disorders. Mental disorders affect anyone regardless of age, gender, income, social status, race, religion, affiliation, educational level or any other aspects. They can occur at any age, however, 75% of them start at the age of 24, and many of them overcome disorders with appropriate care and treatment.

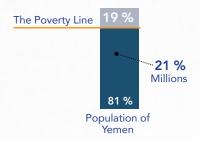
Nowadays, mental disorders are widespread, and nearly one-third of the world's population are chronically anxious, 7% are depressed, 1% are suffering from schizophrenia, and 3% are suffering from obsessive-compulsive disorder. An estimated 450 million people worldwide suffer from psychological and mental disorders. One out every four families have at least one person with a mental disorder, and one out every four individuals is at risk of having a mental disorder at some point in his/her life, according to WHO estimates.

The prevalence of mental disorders is globally estimated to be between

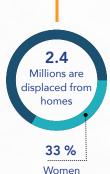
12% and 47.4%. The Prevalence rates vary from a country to another, a study to study, one disorder to another and are influenced by a range of factors including tools and measurements, the samples used in the evaluation studies, and the times in which they are conducted. For example, the prevalence varies in pre-emergency and post-emergency, especially in mild and moderate mental disorders such as anxiety, depression and post-traumatic stress disorder which rises from 10% in pre-emergency to 20% in post-emergency situations.

The increase in the prevalence rates of mental disorders is explained by several reasons, notably the high growth in population rates, conflicts, poverty, hunger, diseases, deprivation, and the high rates of displacements to the cities that causes the spread of slums, homelessness, overcrowding, poverty and increase violence, as well as deterioration and lack of mental health services. All of which increase the likelihood of mental disorder, especially as these phenomena are usually accompanied by a rupture of the traditional social relationships and the collapse of traditional social support and family support systems of individuals.







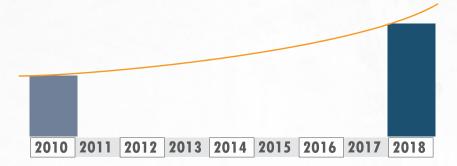


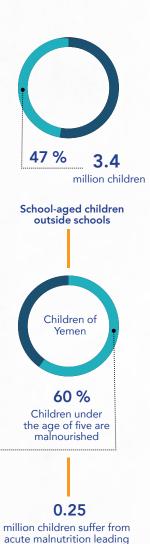
## **Background**

Yemen suffers from a severe shortage of resources, needs and services of specialized mental health. Psychiatrists, for example, are not more than 46, which means one psychiatrist per almost (600,000) persons and the number of psychotherapists and psychologists is 130. While the number of psychiatric nurses does not exceed 25. Yemen suffers from a server shortage of facilities, which are clinics in public, private and rural hospitals with a total of 35 clinics, mainly located in Sana'a. Yemen also suffers from a shortage of equipment, medicine and supplies related to the provision of specialized mental health services.

There is no doubt that the war in Yemen is spreading over a geographical area that covers almost all the Yemeni territories that made the situation worse. Almost all global reports on mental health indicate the seriousness of the situation of mental health and recommend the need for psychological and social health response and provision of emergency specialized mental health services for millions of Yemenis affected.

Although official and non-official statistics about the prevalence of mental disorders in Yemen is not available to reflect the nature of what the Yemenis are suffering today. These alarming numbers of the humanitarian and health situation have many implications. According to the statistics of local and international organizations, 81% of Yemenis population is currently below the poverty line, which means that 21 million people need emergency assistance of food, housing and clothing. As an outcome of the current war in Yemen, one out of ten people is displaces from home, which means that more than 2.4 million people are displaced according to these





to death

resources; one-third of the displaced persons volume is females. In addition, unemployment rates among the population have increased from 35% at the end of 2010 to more than 65% today, especially among young people. Today, 3.4 million school-aged children, 47%, are out of school. Children are the most vulnerable victims of conflict, war and insecurity. International reports indicate that 60% of Yemen's children under the age of five suffer from chronic malnutrition, and more than a quarter of a million suffer from acute malnutrition leading to death. Such suffering will undoubtedly be reflected directly and indirectly and become a stress or another mental disorder.

To contribute to alleviate these mental disorders, FCDF has provided a variety of high quality and specialized mental health services to assist the affected Yemeni individuals and institutions through a team of its members. The team is comprised of the most prominent Yemeni psychotherapists and psychiatrists who have high qualifications and experience in cooperation and partnership with government institutions, local and international NGOs, and the private sector.

One of the services provided by FCDF is the psychological and social counseling helpline service, where calls for psychological and social counseling services are received from any place in Yemen by dialing the toll-free number (136) from any landline telephone or mobile. Calls are received



and transferred via automated answering system that can accommodate 12 calls at the same time, six days a week for 12 hours a day. The incoming calls are distributed according to the priority of the call to 6 psychotherapists working in each shift. During the period from November 2014 to June 2017, the number of beneficiaries of the specialized mental health services provided by FCDF amounted to (91,654) beneficiaries at an estimated cost of 2,193,540,000 Yemeni Rial.

#### **IMPORTANCE AND PROBLEM**

Prevalence estimation studies are surveys that provide estimates of the proportions and rates of the population who currently have or previously had a specific psychological or psychiatric characteristics and disorders at a given time using different scaling and measuring criteria, through two large-scale surveys of the surveyed property at the time of the survey or the time of the disorder; this is called a point or period of prevalence. If disorders developed in the earlier life of a person then it is called a lifetime prevalence. The first psychosocial prevalence surveys are back to the 1950s. Although the prevalence estimates are important and essential for planning mental health programs, Arabic countries', including Yemen, attention to these surveys is low. To this day, there is no single study to assess the prevalence of mental disorders or studies to assess the needs and resources of mental health. FCDF has carried out the present study to assess the prevalence of mental disorders among war-affected populations in Yemen, during the period November 2014 – June 2017 by reviewing and analyzing the systems data of the psychological and social counseling helpline.

## **OBJECTIVES::**



## **General Objective**

Estimating the prevalence of mental disorders among war-affected populations in the Republic of Yemen during the period November 2014 – June 2017

## **Specific Objectives**

- Estimating the overall prevalence proportion of mental disorders among war-affected population in the Republic of Yemen
- Estimating the overall prevalence rate of mental disorders among war-affected population in the Republic of Yemen
- Estimating the total number of Yemenis suffering from mental disorders
- Estimating the prevalence of the main diagnostic categories of mental disorders according to the classification of DSM5
- Estimating the estimates of Yemenis suffering from mental disorders according to DSM5
- Identifying some features and characteristics of the sample selected
- Estimating diagnostic categories of the most prevalent mental disorders in Yemen .

## METHODOLOGY



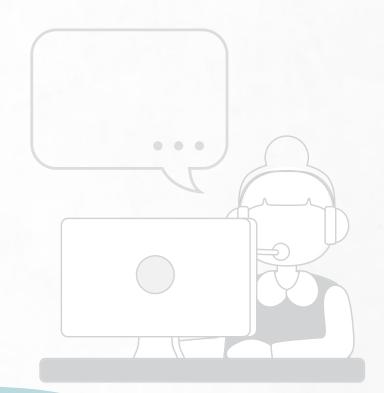
The study was carried out using the methodology of reviewed and analyzed systems data of the psychological and social counseling helpline during the period November 2014 – June 2017 .



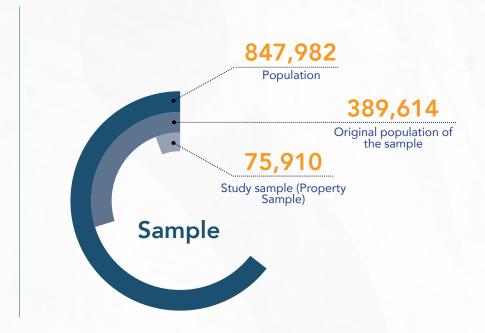
#### **PARTICIPANTS**

A random, non-incidental sample was chosen for participants who made a call to the psychological and social counseling helpline during the period November 2014 - June 2017. The number of participants/callers is (847,982) and the number of completed telephone diagnostic interviews using the telephone diagnostic interview form in the system is (389,614) with a response rate of 46%. The number of participants who were diagnosed to have a kind of mental disorder is (75,910), of whom (14,098) were males, representing 19% of the sample volume while the number of females is (61,812), representing 81% of the participants. Participants ranged from 16-up in their ages. Participants are from all governorates of the Republic of Yemen in which the capital has the dominant portion of them.

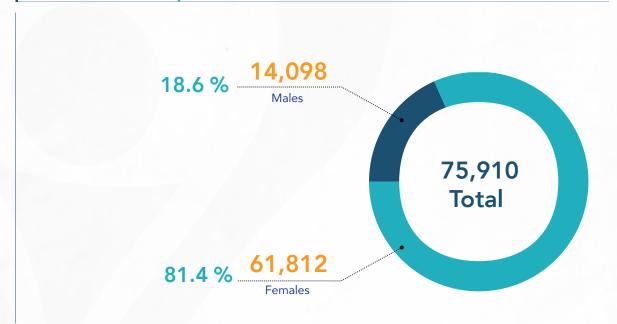




## **Number of Participants**



## **Number of Participants**



## Distribution of the property sample according to the residence variable

Governorate	Number	Percentage
Sana'a	44970	59.2%
Taiz	5681	7.5%
lbb	4317	5.7%
Amran	3037	4.0%
Hajjah	2994	3.9%
Hodeydah	2081	2.9%
Thamar	2064	2.7%
Aden	1633	2.2%
Dhalea	1208	1.6%
Hadramout	1433	1.9%
Al-Baidha	1004	1.3%
Abyan	895	1.2%
Al-Jowf	733	1.0%
Mahweet	706	0.9%
Sa'ada	961	1.3%
Shabwa	585	0.8%
Rayma	530	0.7%
Marib	431	0.6%
Al-Mahra	362	0.5%
Lahj	172	0.2%
Socotra	13	0.0%

#### **INSTRUMENTS**

The diagnostic interviews were conducted by phone calls using the approved medical history form used in the psychological system (Psychological Counseling Information System) in addition to the documented data in:

- Call center database .
- Databases of the Psychological Counseling Information System.

#### **STUDY PROCEDURES**

- Designing, preparation and installation of automated answering software and a software for receiving and documenting telephone diagnostic interviews .
- Receiving psychological and social counseling calls.
- Excluding calls and forms that are not in the psychological field.
- Conducting and documenting diagnostic psychological telephone interviews .
- Extracting and compiling statistical reports monthly, mid-annually, and annually .

Analyzing data of the psychological telephone interviews .

## **SOCIODEMOGRAPHIC CORRELATES**

In analysis and discussion:

- Variables of gender - Age

- Occupation - Marital Status

- Educational status - Place of residence

### **INCLUSION AND EXCLUSION CRITERIA**

Given below are the criteria adopted to exclude the forms of diagnostic telephone interviews:

- Forms whose beneficiaries' age is under 16, though counseling services were provided to.
- Forms whose data were not completed for any reason such as interruption or call hang-ups.
- Forms in which beneficiaries sought counseling for another person.

#### **VALIDATION RESULTS CRITERIA**

Given below are the most important criteria adopted by the study to verify the validity of the findings:

- Reliance on both statistical and electronic database of the information system of the psychological and social counseling helpline.
- Automatic saving of data of the forms by time and date. Impossibility to modify and change the interview form data after saving it in the system.
- Reviewing random samples of interview forms.
- The property sample comprises of different age groups, governorates, and diverse educational, professional and social levels.
- The classification criteria are standardized
- Long experience and high qualification of the staff of the psychological and social counseling helpline.
- Most input fields are defined by specific alternatives that do not allow data entries to be self-sufficient.



#### STATISTICAL ANALYSIS

The obtained data were analyzed using the appropriate statistical equations according to the following steps:

- Reviewing the diagnostic interview forms for the property sample of those diagnosed with one or more types of mental disorders.
- Sorting diagnostic interview forms according to diagnostic variables; gender, age, marital status, educational level.
- Classifying diagnostic interview forms according to the diagnostic variables and calculating the general total and percentage of each diagnostic category.
- Estimating the resident population of the Republic of Yemen by about 28 million people.
- Determining the overall prevalence proportion of mental disorders in Yemen = the total number of cases that have been received and diagnosed as having some types of mental disorder according to DSM5 Standards / total number of calls received \* 100

**Determining the** overall prevalence proportion of mental disorders in Yemen

The total number of cases that have been received and diagnosed as having some types of mental disorder × 100 Total number of calls received

Determining the overall prevalence rate of mental disorder in Yemen = the total number of cases that have been received and diagnosed as having some types of disorder / the total number of calls received \* 1000

**Determining** the overall prevalence rate of mental disorders in Yemen

The total number of cases that have been received and diagnosed as having some types of mental disorder ×1000 Total number of calls received

#### STATISTICAL ANALYSIS

Total number of Yemenis suffering from mental disorders = total / aggregation of estimated Yemeni population suffering from mental disorders at the level of each diagnostic category.

Total number of Yemenis suffering from men- = tal disorders The total number of Yemenis suffering from mental disorders multiplied by the level of each diagnostic category

Determining the number of Yemenis suffering from mental disorders at the level of each diagnostic category according to the DSM5 = the prevalence rate of the diagnostic category \* total estimated population of the Republic of Yemen / 100.

Determining the number of Yemenis suffering from mental disorders at the level of each diagnostic category according to the DSM5

The prevalence rate of the diagnostic category

Total estimated population of the Republic of Yemen

100

X

Identifying the most prevalent mental disorders in Yemen according to the diagnostic category in the DSM5 = top five diagnostic categories in terms of prevalence  $\cdot$ .

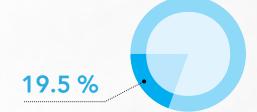
## **FINDINGS**

The study of the prevalence of mental disorders among war-affected population in the Republic of Yemen during the period from November 2014 to June 2017 reached the following findings:



## Finding 1:

Overall prevalence proportion of mental disorders among war-affected population in the Republic of Yemen



## Finding 2:

Overall prevalence rate of mental disorders among war-affected population in the Republic of Yemen



3

## Finding 3:

Total population of Yemenis suffering from mental disorders

5.5



## Finding 4:

The prevalence proportion of mental disorders at the level of each diagnostic category of the basic diagnostic categories according to the classification in the DSM5 as shown in the below table:

Prevalence Percentage	Diagnostic Category
10.3%	Other conditions that may be a focus of clinical attention
3.25%	Anxiety Disorders
2.3%	Depressive Disorders
0.7%	Trauma, Stressors, and Related Disorders
0.63%	Schizophrenia Spectrum and Other Psychotic Disorders
0.33%	Personality Disorders
0.24%	Somatic Symptoms and Related Disorders
0.23%	Obsessive-Compulsive and Related Disorders
0.22%	Sleep – Wake Disorders
0.17%	Neuro Developmental Disorders
0.15%	Bipolar and Related Disorders
0.12%	Sexual Dysfunctions
0.11%	Elimination Disorders
0.09%	Medication-Induced Movement Disorders and Other Adverse Effects of Medication
0.08%	Paraphilic Disorders

0.06%	Substance-Related and Addictive Disorders
0.03%	Dissociative Disorders
0.02%	Other Mental Disorders
0.02%	Disruptive, Impulse-Control, and Conduct Disorders
0.01%	Neurocognitive Disorders
0.01%	Feeding and Eating Disorders
0.01%	Gender Dysphoria
19.48 %	Total

## Finding 5:

The prevalence rate of mental disorders at the level of every basic diagnosticcategory according to the DSM5  $\,$ 

Prevalence Rate of Mental Disorders in Every 1000	Diagnostic Category
107	Other conditions that may be a focus of clinical attention
32.5	Anxiety Disorders
23	Depressive Disorders
7	Trauma, Stressors, and Related Disorders
6.3	Schizophrenia Spectrum and Other Psychotic Disorders
3.3	Personality Disorders





## Finding 6:

The number of Yemenis who suffer from mental disorders according to DSM5 as shown in the below table:

The Estimated Number of Population Affected by **Mental Disorders** in Yemen According to the Prevalence Rate **Diagnostic Category** 2,995,447 Other conditions that may be a focus of clinical attention 909,680 **Anxiety Disorders** 643,201 Depressive Disorders 195,476 Trauma, Stressors, and Related Disorders 177,725 Schizophrenia Spectrum and Other Psychotic Disorders 91,270 Personality Disorders 67,913 Somatic Symptoms and Related Disorders 65,686 Obsessive-Compulsive and Related Disorders 61,374 Sleep – Wake Disorders 48,222 Neuro Developmental Disorders 41,251 Bipolar and Related Disorders 32,699 Sexual Dysfunctions 29,753 Elimination Disorders fects of Medication

26,375	Medication-Induced Movement Disorders and Other Adverse Effects of Medication
22,925	Paraphilic Disorders
17,104	Substance-Related and Addictive Disorders
9,558	Dissociative Disorders
5,246	Other Mental Disorders
4,528	Disruptive, Impulse-Control, and Conduct Disorders
3,881	Neurocognitive Disorders
3,306	Feeding and Eating Disorders
2,731	Gender Dysphoria
5,455,348	Total



## Finding 7:

The diagnostic categories of the most prevalent mental disorders are as listed below:

- Other conditions that may be a focus of clinical attention
- Anxiety disorders
- Depressive disorders
- Trauma, stressors, and related disorders
- Schizophrenia spectrum and other psychotic disorders

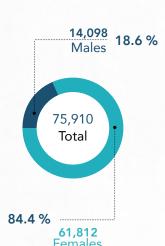




The findings of the present study will be discussed according to the following considerations:

Identification of some attributes and characteristics of the property sample according variables: gender, age, occupation, marital status, educational status; findings were as follows:

## Characteristics of the property sample according to the gender variable:



The characteristics of the property sample according to the gender variable revealed that the prevalence of disorders and stress is higher among females than males. The prevalence rate is %81.4 for females and %18.6 for males as shown in the below table and figure:

Gender	Number	Percentage
Males	14,098	18.6%
Females	61,812	81.4%
Total	75,910	100%

## Characteristics of property sample according to the profession variable:



The characteristics of the property sample according to the profession variable revealed that the prevalence of disorders and stress is more prevalent among unemployed individuals than among individuals who have jobs as in the below table and figure:

Profession	Number	Percentage		
Jobless	65,371	86%		
With a job	10,539	14%		
Total	75,910	100%		

## Characteristics of the property sample according to the age variable:

The characteristics of the property sample according to the age variable revealed that the prevalence of disorders and stress was greater among individuals of the younger age groups as shown in the below table and figure:

Age	Number	Percentage
16 – 18	12,722	16.8%
19 – 23	18,784	24.7%
24 – 28	18,191	24.0%
29 – 33	11,368	15.0%
34 – 38	7,203	9.5%
39 – 43	2,921	3.8%
44 – 48	1,592	2.1%
49 – 53	849	1.1%
54 – up	2,280	3.0%
Total	75,910	100%

Age	16-18	19-23	24-28	29-33	34-38	39-43	44-48	49-53	54-up
	16.8%	24.7%	24%	15%	9.5%	3.8%	2.1%	1.1%	3%
NO.	12,722	18,784	18,191	11,368	7,203	2,921	1,592	849	2,280

## Characteristics of the property sample according to the marital status variable:



The characteristics of the property sample according to the marital status variable revealed that the prevalence of mental disorders and stress is more prevalent among unmarried individuals than among married individuals as shown below:

Marital Status	Number	Percentage		
Married	36,201	48%		
Unmarried	39,709	52%		
Total	75,910	100%		

## Characteristics of the property sample according to the educational status variable:



The characteristics of the property sample according to the educational status variable revealed that the prevalence of mental disorders and stress is more prevalent among educated individuals than among illiterate individuals as shown below:

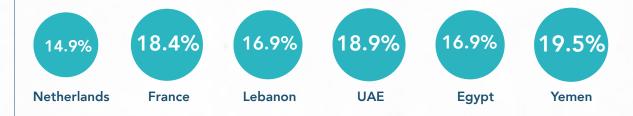
Educational Status	Number	Percentage		
Illiterate	9,715	13%		
Educated	66,191	87%		
Total	75,910	100%		

- Although the sample used in the study did not consider the similarity in the size of the gender variable in the ratio of male and female representation in the population, this does not have an adverse effect on confidence in the findings when the used sample is very large as in the present study where it is more than 300 thousand.
- Considerations of informed consent, taking data without names, self-bias and language differences were also taken into account.
- Comparing the findings of the present study with the findings of the Al-Yahri-Goodman's study of the prevalence of mental disorders in DSM5 among Yemeni school children, 7-10 years of age, Al-Yahri's study found that the prevalence of mental disorders was 15.7%. The difference is noticeable with the findings of the present study which is estimated at 19.5%; however, the difference between the prevalence rates is due to the time period in comparison with the time period of the present study, which is considered as an emergency period and is expected that the rates of prevalence will increase during this period.



- In addition, comparing it with what was carried out in the study of Depressive and Emotional Disorders in Yemen by Dr. Abdullah Shoail for (700) mental patients that the prevalence of depression among Yemenis is up to 17%.

By comparing the overall prevalence of mental disorders in the Republic of Yemen according to our present study, there is a significant increase in the overall prevalence rate in some Arab and foreign countries: 16.9% in Egypt, 18.9% in UAE, 16.9% in Lebanon, 18.4% in France and 14.9% in the Kingdom of Netherlands. For the most prevalent disorders, the findings of the present study are close to the findings of studies in some countries of the Arab world, Europe and America, especially in anxiety and depression. The negative effects of high rates of prevalence of mental disorders are serious for the individuals, families, and societies. If they are not dealt with, treated and reduced in a timely manner, these disorders may take the individual to disability, relationships destruction, work drop-out, absenteeism, low productivity, increase of the direct and indirect financial burdens because of the prevalence of disorders.



Responses, interventions and policies should be taken to address the psychological health situation in the Republic of Yemen, as we raise our voice to say to all official government agencies, local and international NGOs, individuals, community and religious leaders, businessmen and all interested parties and those who sympathize with the psychological situation, "let's work together to stop the psychological pain"; this can be achieved by doing the following:

- Coordinating the efforts and resources of governmental, civil and international institutions working in the field of psychological and social support and specialized mental health care in Yemen.
  - Assessing the present psychological health situation, the needs and

resources of the specialized mental health.

- Training staff to improve the quality of services provided in the field of mental and specialized health.

Rapid response to address stress and mental disorders of acute cases.

- Working to raise awareness of mental health issues and providing emergency psychotropic medications.
- Directing future studies and research:

The present study recommends re-examining the prevalence of mental disorders in Yemen using the Composite International Diagnostic Interview (CIDI) tool, directing future studies for studying the prevalence rates of disorders with other variables as well as conducting studies aimed at assessing the needs and resources of mental health in Yemen.

### Conclusion



The prevalence proportion and rate of mental disorders in Yemen are among the highest in the world and are like those of countries in emergency situations.

The findings of the present study mean a great deal for the psychological health situation in the Republic of Yemen, where it can be considered an unprecedented quality addition. With this study, Yemen has now prevalence proportions and rates obtained through a scientific study carried out by a group of Yemeni experts in the psychological field.



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This study was carried out at the expenses of FCDF.



## **CONFLICT OF INTEREST**

Given the background and history of the study financier, its authors and the participating working group, it is clear that there is no conflict of interest.

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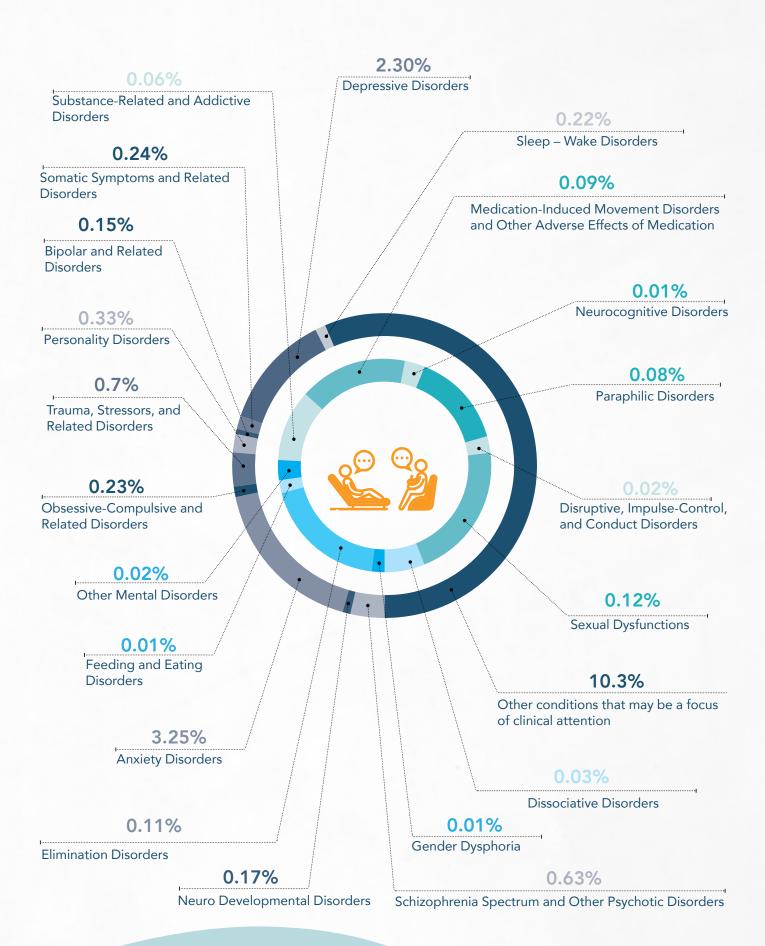
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# ESTIMATED PREVALENCE OF MENTAL DISORDERS AMONG WAR-AFFECTED POPULATION IN YEMEN DURING THE PERIOD NOVEMBER 2014 TO JUNE 2017

Age	Number	Percentage	Age	Number
Other conditions that may be a focus of clinical attention	41681	10.3%	107	2,995,447
Anxiety Disorders	12658	3.25%	32.5	909,680
Depressive Disorders	8950	2.3%	23	643,201
Trauma, Stressors, and Related Disorders	2720	0.7%	7	195,476
Schizophrenia Spectrum and Other Psychotic Disorders	2473	0.63%	6.3	177,725
Personality Disorders	1270	0.33%	3.3	91,270
Somatic Symptoms and Related Disorders	945	0.24%	2.4	67,913
Obsessive-Compulsive and Related Disorders	914	0.23%	2.3	65,686
Sleep – Wake Disorders	854	0.22%	2.2	61,374
Neuro Developmental Disorders	671	0.17%	1.7	48,222
Bipolar and Related Disorders	574	0.15%	1.5	41,251
Sexual Dysfunctions	455	0.12%	1.2	32,699
Elimination Disorders	414	0.11%	1.1	29,753
Medication-Induced Movement Disorders and Other Adverse Effects of Medication	367	0.09%	0.9	26,375
Paraphilic Disorders	319	0.08%	0.8	22,925
Substance-Related and Addictive Disorders	238	0.06%	0.6	17,104
Dissociative Disorders	133	0.03%	0.3	9,558
Other Mental Disorders	73	0.02%	0.2	5,246
Disruptive, Impulse-Control, and Conduct Disorders	63	0.02%	0.2	4,528
Neurocognitive Disorders	54	0.01%	0.1	3,881
Feeding and Eating Disorders	46	0.01%	0.1	3,306
Gender Dysphoria	38	0.01%	0.1	2,731
Total	75910	100%	194.8	5,455,348



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