

Depression and Anxiety Among Visually Impaired Population During Covid 19 Crisis in Mosul City

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Abstract—COVID 19 pandemic was really tough for blind and visually impaired people because they are most likely to complain from depression, anxiety and they are most likely to get severe acute respiratory infections

Aim: to assess depressive and anxiety disorders among visually impaired population and try to find how to advice and treat them. **Material and Method:** It's a case series study, the sample was 24 person of the visitors to Um Al Rabeain institution for blind and visually impaired people they were gathered during repeated visits between 28th of June to the 28th of July 2022, after their verbal consent they were assessed by Hamilton scales for depression and anxiety.

Inclusion all visitors of the institution during this period of time, while those with mental retardation or severely ill were excluded **Results:** High degree of depression (62.5%) also anxiety (58.3%) revealed in this population. **Conclusion:** depression with anxiety both widely noticed in this population, efforts must be forwarded to improve quality of their live.

Index Terms— Anxiety, COVID-19, Depression, Psychological health care, Visual impairment.

I. INTRODUCTION

Purblind means any type of vision impairment, including those who did not see anything or others with partial loss of vision. Patients who are completely blind made very small part of the visually impaired population, but others called legal Impairment in vision that is prevalent highly, and roughly affecting 2.2 billion of human being around the ward (1) It looks like the prevalence in vision impairments continues to rise due to increases in the human being age, cause great impact on mental health of population (2) specially at the time of crisis.

An economic substantial burden and loss of about \$3 trillion globally caused by vision impairments (3). It is associated with reduced quality-of-life (4) specially for people with respiratory and mental health problems (anxiety. And depression) (5) actually, anxiety and depression lead to further decrease in quality of life and may increase the burden caused by the visual impairment leading to aggravates level of health problem (6)

COVID 19 virus appeared in November 2019 in China and then infection spread all over the world, as the number of cases increase significantly, world health organization polices

include urging people to stay at home ,physical distancing, employee to work from home closing schools and universities, banning religious activities and public gatherings were introduced with an aim of slowing a spread of a disease, and it was very difficult to purblind people to live with it(7), It's known that these policies affected the mental health in all segment of community, in Iraq the Higher Committee for Health and National Safety announces measures to control the spread and decrease complication of the virus infection (8). Reports reveal a highest increase in the prevalence of mental health problems in the beginning of the crisis among normal people (9) but the life of visually impaired population were directly affected, the infection led to decreased quality level-of-life, and loneliness among this population which increase the risk of anxiety and depression (5).

It was important to support and educate the individuals with visual impairment by special interventions because they were more vulnerable to get the infection.(10), so we can help them to pass this difficult time by:

A. Keeping Informed: Continuing up-to-date about COVID-19 may help stay safe depending on a Good sources of information.

B. Be Kind to Ourselves: have a day filled quiet with activities and self-care that made us feel better.

C. Boost Our Movement with Mood: we know that our mental health was supported by meditating and physical activity.

D. Resources for Shopping: used online shopping, these services are more important now, neighbor and family member can do this shopping.

E. Sighted Assistance with Accessing to Health Care: Contact doctor by virtual visits providing support to the patients.

F. Virtual Meetings: Can help in communication and social contact. (11)

The reactions to visual impairment and mental distress were caused by the interaction of social and personal factors, so by single intervention it was difficult to solve these problems (12).

Usually those with visual impairment and purblind adults can experience multiple barriers to discuss and recognize, their mental health that's why social support systems and healthcare providers seem essential to understand their needs and reduce these barriers (13).

Aim: A. To assess depression and anxiety disorder among visually impaired population.

B. To find how to advise and support this population socially and medically.

II. METHOD

This study was a case series study to a sample of 24 persons with visual impairment visited UM AL RABEAIN INSTITUTION FOR BLIND AND VISUALLY IMPAIRED a developmental institution was established in 2019 by a group of blind people and volunteers to support and raise the quality of life of this population, they fund their projects through donation.

All the beneficiaries who visited this institution were recruited to be in the sample except:

- A. Those who refuse to share.
- B. mentally retarded and severely ill or tired patient.

Verbal consent was taken from the person himself or his caregiver. The sample size was small and there were difficulties in gathering and interviewing the sample because of the restriction during the Covid 19.

The study took place between 28th of June and 28 of July 2022. Verbal acceptance to share in this study by the person himself or the care giver were taken. Hamilton scale for depression and anxiety were used through the interview.

The Hamilton Rating Scale for Depression (14) often abbreviated to HRSD, HDRS or Ham-D, was written in the late 1950s by Max Hamilton, a psychiatrist at Leeds University and originally designed to evaluate the performance of the first group of antidepressants, The scale is widely available and has two common versions with either 17 or 21 items, scoring 0–7 are considered normal, 8–16 suggest mild depression, 17–23 moderate depression and scores over 24 are indicative of severe depression. While The Hamilton Anxiety Rating Scale HAM-A, sometimes termed HARS(12), dating back to 1959, is one of the first rating scales to measure the severity of perceived anxiety symptoms. Each item is scored on a basic numeric scoring of 0 (not present) to 4 (severe), >17 is taken to indicate mild anxiety; 25–30 is considered moderate–severe. (15) SPSS program version 23 was used to do the statistical analysis in this study.

III. RESULTS

In this study the sample was 24 persons with visual impairment, the sample age divided to two groups, those equal or below 18 consist 37.5 of the sample those more than 18 consisted 62.5%. Male and female was equal 12 for each 50% of the sample, 70.8% of the sample live the left side of Mosul City the rest was from the right side. Only 4 persons of the sample were infected with the COVID 19 virus (16.7%). Table (1).

TABLE I
SOCIO-DEMOGRAPHICAL DATA

Parameters (n=24)	No	%
Age(yeas)		
≤ 18	9	37.5
> 18	15	62.5
Gender		
Men	12	50.0
Women	12	50.0
Residency		
Left	17	70.8
Right	7	29.2
Infection with COVID		
Yes	4	16.7
No	20	83.3

TABLE II
DISTRIBUTION OF DEPRESSION

Depression	No	%
No	9	37.5
Mild	5	20.8
Moderate	8	33.3
Severe	2	8.3
Total	24	100.0

Table (2) show that 37.5% of the sample were free from depressive symptoms while about two thirds of the sample complain of depressive symptoms in deferent levels: Mild 20.8%, Moderate 33.3% and sever 8.3%.

TABLE II.A

Parameters	Depression		P-value*
	Yes (n=15)	No (n=9)	
	No. (%)	No. (%)	
Age(yeas)			
≤ 18	9 (60.0)	6 (66.7)	0.547
> 18	6 (40.0)	3 (33.3)	
Sex			
Male	7 (46.7)	5 (55.6)	0.500
Female	8 (53.3)	4 (44.4)	
Residency			
Left	11 (73.3)	6 (66.7)	0.539
Right	4 (26.7)	3 (33.3)	

Table (2a) shows no significant relation between depression and any of the socio- demographical parameters (age, sex and residency) P value not significant (>0.05).

TABLE III
DISTRIBUTION OF ANXIETY

Anxiety	No	%
No	10	41.7
Mild	8	33.3
Moderate	5	20.8
Severe	1	4.2
Total	24	100.0

Regarding anxiety Table (3) show that 41.7% of the sample not complaining of anxiety, while of 33.3% had Mild symptoms, 20.8% moderate and 4.2% had severe symptoms of anxiety, with no significant relation (P value not significant) between anxiety and socio-demographical parameters as shown in Table (3a).

TABLE III.A

Parameters	Anxiety		P-value*
	Yes (n=14)	No (n=10)	
	No. (%)	No. (%)	
Age(yeas)			
≤ 18	9 (64.3)	6 (60.0)	0.582
> 18	5 (35.7)	4 (40.0)	
Sex			
Male	6 (42.9)	6 (60.0)	0.340
Female	8 (57.1)	4 (40.0)	
Residency			
Left	10 (71.4)	7 (70.0)	0.643
Right	4 (28.6)	3 (30.0)	

TABLE IV
DEPRESSION IN RELATION TO INFECTION WITH COVID19

Infection with COVID 19	Depression		P- value*
	Yes	NO	
	No. (%)	No. (%)	
Yes	4 (26.7)	11 (55.0.0)	0.259
No	0 (73.3)	9 (45.0.0)	
Total	4 (100.0)	20 (100.0)	

* Fisher Exact Test

Table (4) and Table (5) show that there is no significant relation between being infected with COVID 19 and suffering depression and anxiety symptoms.

TABLE V
ANXIETY IN RELATION TO INFECTION WITH COVID 19

Infection with COVID	Anxiety		P-value*
	Yes	NO	
	No. (%)	No. (%)	
Yes	4 (100.0)	10 (50.0)	0.114
No	0 (0.0)	10 (50.0)	
Total	4 (100.0)	20 (100.0)	

* Fisher Exact Test

IV. DISCUSSION

The study could be the 1st one which discuss issues about mental illness of blind and visually impaired population in Mosul City after the COVID 19 crisis, that's why we can't find similar local study to compare the results.

The sample of study involve both sexes equally, different age groups from right and left bank of the Tigris river in Mosul City in between the 28th of June to 28th of July 2022 , about 1 year after the quarantine being ended and life return to about normal .The researcher try to assess depressive symptoms among this group of population using Hamilton scale and find that about one third of the group (37.5%) complain of no depressive symptoms while the rest (62.5%) suffer mild moderate to severe depression , this result was similar to many other foreign and local studies (16,17, 18) ,most probably because of feeling lonely , dependence on others and the restriction of mobility this results was higher than results of research done before the COVID 19 crisis (19).

About (41.7%) of the sample show no anxiety symptoms, (58.3%) of the sample was anxious in deferent levels (mild, moderate and sever) because of fears about getting the infection themselves or their care givers or being affected financially during the crisis. No significant relation between depression and any of the socio- demographical parameters (age, sex and residency) P value > 0.05 (not significant). The same were found regarding anxiety. Only 4 personas of the sample get the infection during the last year, which looks as a good sign , this is most probably due to their limited mobility , taking precaution and decrease rate of contact with others. It shows that the limitation in mobility act as a protective factor for this population.

Those who found to be suffering anxiety or depression (moderate to severe cases) were assessed clinically during the interview and referred to receive treatment in specialized psychiatric centers near there residency (20) and educated to continue their treatment in out-patient or privet clinic , those complain from mild symptoms were educated themselves and their families to pass these symptoms and to know when to consult the specialist (21)while those who are in bad financial status and fit to receive the social care salary were referred to the social welfare department. There was no significant relationship between being infected with COVID 19 and the complaining from depressive and anxiety symptoms, against what one can expect but we can solve it if we understand that the prevalence of anxiety and depression in those population

were high weather infected with COVID 19 or not before and through the pandemic .

Limitation:

A. Small size sample due to restriction in mobility of this population.

B. Limited studies to compare with.

CONCLUSION

People with visual impairment are at higher risk than general population to develop symptoms of anxiety and depressive disorders in general. This study shows high levels of these disorders among this population than those measured before COVID 19 crisis. Being infected made no difference in the complain because most of sample are already suffer the symptoms of depression and anxiety due to their difficult life style and restrictions associated COVID19 crisis.

RECOMMENDATION

This group of population need to be cared after because of their specific needs which affected themselves, their care givers and families. We recommended that

A. New survey with a bigger sample.

B. Central, local governmental and privet efforts must be forwarded to cover the special needs of this population (teaching center, day clinic).

C. Social care to support them financially and cover their needs (glasses, walking aid, medical treatment).

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