

## Impact of COVID-19 on Mental Health of Physicians in Baghdad, Iraq

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### ABSTRACT:

#### BACKGROUND:

Healthcare professionals are vulnerable to adverse mental health consequences explained by their working in close contacts with COVID-19 patients. Publication on mental health of healthcare professional in Iraq is scarce.

#### OBJECTIVE:

To comment on mental health disorders among healthcare professional dealing with COVID-19 patients.

#### METHODS:

A total of 100 healthcare professionals were included in the study. They were selected conveniently. Hospital anxiety and depression scale was used. Data collected by a physician.

#### RESULTS:

The age of participants was  $35.5 \pm 8.7$  years with a male to female ratio of 1.7:1. Of the participants, 63% got COVID-19. Anxiety and depression rates were 80% and 64%, respectively. Age, sex, and job titles were not significantly associated with anxiety or depression ( $p = 0.5, 0.8$  and  $0.7$ , respectively).

#### CONCLUSION:

High rates of anxiety and depression among healthcare professionals.

**KEYWORDS:** healthcare staff, anxiety, depression, COVID-19, Iraq.

### INTRODUCTION:

Healthcare staff are under experiencing heavy workload conditions at a high risk of infection during COVID-19 pandemic.<sup>(1)</sup> Among health care personnel, infection led to further loss of capacity of hospitals.

Healthcare professionals working in close contact with COVID-19 patients are vulnerable to adverse mental health consequences. Literature documented that fear of infected, high workload, frustration, physical exhaustion, and inadequate personnel equipment had impact on mental health professionals. Recent publications documented that a considerable proportion of healthcare workers within secondary and tertiary hospitals developed adverse psychological outcome.<sup>(2)</sup> In Iraq, publishing on pandemic

mainly concern with the disease (COVID-19)<sup>(3,4)</sup> and publishing on mental health of healthcare professionals were scarce. This was the impetus to carry out this study. The objective was to comment on mental health disorders among healthcare professionals.

### MATERIALS AND METHODS:

A total of 100 of healthcare staff was included in this study. They were selected conveniently (they were present at hospitals on duty during collection of data). They were taking care of COVID-19 patients. Their age was  $35.5 \pm 8.7$  years giving male to female ratio of 1.7:1. Their job titles were permanents, specialists, and consultants.

The instrument hospital anxiety and depression scale (HADS) was used. HADS was devised to measure anxiety and depression in general medical population of patients. Its score is simple, speed and easy and cut off score are available for quantification e.g., a score of 8-10, 11-14 and 15-21 are mild, moderate and sever disorder respectively.<sup>5</sup> HADS is a self-reported questionnaire, was distributed by a physician to the doctors, then collected the questionnaire.

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# RESULTS:

The age of participants was  $35.5 \pm 8.7$  years, giving a male to female ratio of 1.7:1. The participants were consultants, specialists, and permanents in 16, 25 and 59, respectively. Sixty-three (63%) of participants were developed COVID-19 before the data collection.

Out of the total, 80 (80%) and 64 (64%) were with anxiety and depression, respectively.

Of those aged  $\leq 30$  years, 33 (59%) and 23 (35.9%) were with anxiety and depression, respectively. Of participants aged  $>30$  years, 47 (53.9%) and 41 (64.1%) were with anxiety and depression, respectively. Age was not significantly associated with anxiety and depression ( $\chi^2=0.4$ , d.f.=1,  $p=0.5$ ).

Forty-nine (55.1%) of males were with anxiety and 40 (44.9%) with depression. Of female, 31 (56.3%) and 24 (43.6%) were with anxiety and

depression, respectively. Sex was not significantly associated with anxiety and depression ( $\chi^2=0.02$ , d.f.=1,  $p=0.8$ ).

Rate of degrees anxiety in Mild, moderate and sever were 40 (66.7%), 25 (55.6%) and 15 (38.5%), respectively. Degrees of depression in mild, moderate and sever were 20 (33.3%), 20 (44.4%) and 24 (61.5%). Degrees of anxiety were not significantly associated with that of depression ( $\chi^2=4.6$ , d.f.=3,  $p=0.2$ ).

Of permanents, specialists, and consultants, 44 (54.3%), 18 (52.9%) and 18 (62.1%), respectively, were with anxiety. Depression was observed in 37 (45.7%), 16 (47.1%) and 11 (37.9%) of permanents, specialists, and consultants, respectively. Job title was not significantly associated with anxiety and depression ( $\chi^2=0.6$ , d.f.=2,  $p=0.7$ ).

**Table 1: Distribution of anxiety and depression among healthcare professional with some studied variables.**

| Variable              | Anxiety     |                                      | Depression |    |      |
|-----------------------|-------------|--------------------------------------|------------|----|------|
|                       | No.         | %                                    | No.        | %  |      |
| Age                   |             |                                      |            |    |      |
|                       | ≤ 30        | 33                                   | 59         | 23 | 35.9 |
|                       | >30         | 47                                   | 53.9       | 41 | 64.1 |
|                       | Total       | 80                                   | 55.6       | 64 | 44.4 |
|                       |             | $\chi^2=0.4$ , d.f.=1, p = 0.5       |            |    |      |
| Sex                   |             |                                      |            |    |      |
|                       | Male        | 49                                   | 55.1       | 40 | 44.9 |
|                       | female      | 31                                   | 56.3       | 24 | 43.6 |
|                       | total       | 80                                   | 55.6       | 64 | 44.4 |
|                       |             | $\chi^2=0.02$ , d.f.=1, p = 0.8      |            |    |      |
| Degree of disturbance |             |                                      |            |    |      |
|                       | None        | 29                                   | 56.9       | 22 | 43.1 |
|                       | Mild        | 31                                   | 53.4       | 27 | 46.5 |
|                       | Moderate    | 25                                   | 51.1       | 24 | 48.9 |
|                       | Sever       | 15                                   | 35.7       | 27 | 54.3 |
|                       |             | 80                                   | 55.6       | 64 | 44.4 |
|                       |             | $\chi^2=4.6$ ,<br>d.f.=3, p = 0.2    |            |    |      |
| Professional stage    |             |                                      |            |    |      |
|                       | Permanents  | 44                                   | 54.3       | 37 | 45.7 |
|                       | Specialist  | 18                                   | 52.9       | 16 | 47.1 |
|                       | Consultants | 18                                   | 62.1       | 11 | 37.9 |
|                       | total       | 80                                   | 55.6       | 64 | 44.4 |
|                       |             | $\chi^2=0.6$ ,<br>d.f.=2,<br>p = 0.7 |            |    |      |

**DISCUSSION:**

Literature<sup>(6)</sup> documented that the pandemic emergency determined stressful job conditions for healthcare professionals. Several ways explain the increased stressful job conditions e.g., increased workload conditions and intensified conflicts between coworker, might have contributed to increase perception of job-related stress.

The study showed that 63% of participant developed COVID-19. The figure is higher than that reported in southern Iraq (Basrah) (16.1%).<sup>(8)</sup> This difference might be attributed to the sampling. Data in this study was self-reported from healthcare professional and in southern Iraq was a review of the PCR positive cases. It was mentioned that 40% of cases were asymptomatic<sup>9</sup> i.e., not PCR will be carried out for them.

It was observed that a high proportion of participants had psychological problem in term of anxiety (80%) and depression (64%). It is likely that majority of healthcare professionals in Baghdad, Iraq, hospital developed psychopathological symptoms as a direct response to COVID-19 pandemic since low levels of depression and anxiety was reported by World Health Organization before the pandemic.<sup>(7)</sup> The observed high rate of psychological symptoms is like that reported recently in Iraqi Kurdistan region.<sup>(10)</sup> Literature<sup>11</sup> documented that prevalence of anxiety and depression were high among frontline healthcare professionals. Rate of psychological symptoms were high in previous outbreak of other infectious diseases like SARS.<sup>(12)</sup>

In the line with that reported in Iraqi Kurdistan region,<sup>8</sup> the observed rates of anxiety and depression were not significantly affected by age and sex of healthcare professionals ( $p = 0.5$  and  $0.8$ , respectively).

The reported figures of anxiety and depression (80% and 64%, respectively) were not significantly affected by job titles of healthcare professionals ( $p = 0.7$ ). It is in contrast with that reported in Iraqi Kurdistan region.<sup>(11)</sup> The difference might be attributed to the fact that all job titles were working as frontline with COVID-19 in the beginning of establishment of COVID-19 centers. It can be speculated that the difference might be related to difference in assessment scale used. It might be hypothesized that the difference does exist in the emotional response to the pandemic.

**CONCLUSION:**

High rates of anxiety and depression were notice among healthcare professionals.

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