

INTRODUCTION TO RESEARCH (BMHP5005_LON)

TITLE: PSYCHOLOGICAL IMPACT OF COVID-19 ON HEALTHCARE WORKERS IN THE
UNITED KINGDOM

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INTRODUCTION

The Severe Acute Respiratory Syndrome-2 (SARS-2) was initially discovered in Wuhan, China in December 2019. The disease is caused by the coronavirus and hence its name covid-19. The World Health Organisation (WHO) disease outbreak reporting newsletter on 12th January 2020 reported that there was no infection among healthcare workers and no human-human transmission. (WHO, 2020).

On 30th January 2020, the WHO then declared covid 19 as a public health emergency of international concern due to the increasing number of cases and deaths. According to the WHO, the number of outside China cases increased about 13-fold and the number of nations recording cases also increased by three folds. These situations lead the WHO to declare covid-19 a global epidemic on the 11th of March 2020 (WHO, 2020). The number of cases overwhelmed hospitals and healthcare workers in general.

Pandemics naturally pose a huge threat to the health of the public in so many ways. The covid-19 is a new, and contagious disease with an associated high morbidity and mortality rate. Covid-19 pandemic poses a threat to healthcare professionals or workers who by virtue of profession are on the frontline of disease diagnosis, management, and reporting. The challenges of covid-19 on healthcare workers stem from no knowledge on covid-19 disease treatment, social isolation after contracting the disease, fear for the lives of patients, fear for the lives of healthcare professionals themselves and by extension their neighbours, family, and friends (Stuijzand et. al, 2020). The SARS pandemic also presents a new way of working and doing things in the hospital setting. Healthcare professionals had to carry out tasks that they are not familiar with, spend long hours working to the detriment of their health and family amid patient pain, frustration, and ultimate death (Maunder, 2009). These factors pose a serious threat to the psychological state of the healthcare professional.

According to the UK Department of Health and Confederation of British Industry, it is envisaged that working group are likely to have some symptoms of a psychological condition at an estimation of 15-30% during their working lives (Liimatainen and Gabriel, 2020). The estimation is likely to increase in this covid-19 era among healthcare professionals. The most common psychological problem in the UK is anxiety and depression with prevalence rates of 5.9% and 3.3% respectively (Edwards, 2016). Mental health events or problems can be worsened by work-related issues.

AIM/RATIONAL

The rational of this review is to ascertain the extent of psychological impact of covid-19 has had on healthcare professionals. Management of patients in the pandemic era may impact negatively on the psychological state of healthcare professionals (Brooks et. al, 2018). This

psychological impact exists anyway with a lot of evidence proving that but with the emergence of this pandemic, it is estimated that it would worsen. This research also seeks to provide an understanding of the psychological impact of covid-19 on healthcare professionals. This highlighted impact will help policy makers in addressing psychological conditions among healthcare workers. It will also help policy makers to be well informed on the impact of pandemics on healthcare professionals so that there would be better prepared for future pandemics. This research will provide enough evidence for public health action on the psychological impact of covid-19 on healthcare professionals.

OBJECTIVES.

1. To determine the extent of the psychological impact of covid-19 have had on healthcare workers.
2. To provide evidence for public health action on psychological problems among healthcare workers.
3. To determine who among nurses, doctors, and other healthcare workers were mostly affected.
4. To determine which mental health problem was more prevalent.
5. To determine which gender among healthcare professionals was severely affected psychologically.

LITERATURE REVIEW

COVID-19 DISEASE PANDEMIC

Covid 19 disease also known as SARS-CoV-2 is a viral infection affecting primarily the respiratory system. It is a highly contagious disease that spread through mainly the respiratory route (Leung et. al, 2020). There is a great debate whether air droplets or aerosols are the routes of its respiratory transmission. The disease symptoms range from asymptomatic to severe forms with high morbidity and mortality. Associated symptoms are pyrexia (83%), cough (82%), and dyspnea (31%) (Wang et. al, 2020).

The disease was declared a public health emergency by the WHO before it was finally declared as a pandemic by the same body. Pandemics are known to pose some serious threats to healthcare workers globally. Healthcare workers working during pandemics are at a higher risk of developing diverse psychological problems immediately following an epidemic or in the long term (Stuijzand et. al., 2020). Stuijzand et al., (2020), studied the psychological impact of various pandemics in the world from 2003 to later and concluded that healthcare workers were affected with the following average rates: post-traumatic stress disorder (21%), depression (46%), and anxiety (45%).

MENTAL HEALTH SITUATION IN THE UK

The Adult Psychiatry Morbidity Survey conducted every six years releases the psychological situation among the adult population in the UK. In 2014, their study revealed that “every week, one in six (17%) adults experiences some form of the most common mental health problems in the country” (McManus et. al, 2016). According to the study, some of the most common mental health problems in the adult population include anxiety and depression. The study further revealed that women between the ages of 16-21 are three times as likely (26%) to experience at least one of the common mental health problems as their male counterparts.

The Adult Psychiatry Morbidity Survey further reports that a “fifth of men (19.5%) and a third of women (33.7%) have had their diagnoses confirmed by professionals”. According to the scheme, all common mental health problems except phobias are prevalent in the working ages (16-64) of the population at a rate of 17.5%. Lelliot et. al, (2008) also reported a 14.7% of the population experience mental health problems at the workplace. The most prevalent common mental health problems are at the rate of depression (5.9%) and anxiety (3.3%). Post-traumatic stress disorder accounts for 4.4% of the adult population in England with 31.5% for men and 31.2% for women (McManus et. al, 2016).

Martin-Merino et al, reported that “women in England are almost twice as likely to be diagnosed with anxiety disorder as men”.

COVID-19 DISEASE PSYCHOLOGICAL IMPACT AMONG THE POPULACE AND HEALTHCARE WORKERS.

Covid-19 has had an enormous effect on the populace and healthcare workers. According to the Office for National Statistics in the UK (2020), anxiety among the populace increased from 21% in 2019 before the pandemic to 49.6% in 2020. Another research conducted in Asia and Europe revealed “that the prevalence of anxiety and depression were 31.9% and 33.7% respectively among the population during the covid-19 epidemic” (Salari et. al, 2020).

For healthcare workers, a survey from China indicated that 50% developed mild depression during the covid-19 era (Lai et. al, 2020). Another study in the US also revealed “that healthcare workers are at a higher risk of developing mental health conditions” (Shanafelt et. al, 2020). According to Siddiqui et al (2021), anxiety levels among healthcare workers in the UK increased greatly during covid. According to their study self-perceived anxiety score pre-pandemic was 2 and it increased to 7 during covid.

The overall prevalence of anxiety and depression in a London-based hospital was 41.2% and 42.7% respectively (Ike et. al, 2021). “The prevalence of anxiety and depression according to the study was significantly higher in females than males”. The study further revealed “that nurses are four times more likely to exhibit some moderate to severe symptoms of anxiety and depression as compared to doctors”.

METHODS

SEARCH STRATEGY

This is a systematic review of data of five research articles properly screened and selected based on a set of inclusion and exclusion criteria on two database search engines. In this study, I systematically searched on PubMed and Google Scholar database resources spanning from January 2020 to December 2021. The keyword for the search on PubMed was healthcare worker, psychological impact, mental health, depression, anxiety, stress, post-traumatic stress disorder, covid-19, SARS-COV2, nurses, doctors, healthcare professionals, United Kingdom, and a combination of them. The same search strategy was used in Google Scholar.

INCLUSION AND EXCLUSION CRITERIA

ITEM	INCLUSION	EXCLUSION
THEME/OBJECTIVE OF PAPER/ARTICLE	The study must look at the psychological impact/mental health impact of covid 19 on healthcare workers	Any objective on other health problems that covid-19 brought on healthcare workers
PARTICIPANTS	Healthcare workers who worked during the covid-19 era	Non-healthcare workers who were affected by covid. E.g., Teachers.
GEO-POLITICAL LOCATION	United Kingdom	No other country
PUBLICATION YEAR	2020-2022	Other dates
LANGUAGE	English	
RESEARCH DESIGN	Secondary (Qualitative/quantitative)	

All articles that showed up after the search were carefully screened through these criteria. All selected articles were further screened by looking at their title, abstract, objective, and full article. For each accepted article after the full article was read, data extraction was done rigorously.

DATA ANALYSIS

Data was typed into excel and descriptive analyses was conducted for the sample characteristics. Odds ratio was used to examine the differences among the different professions and gender.

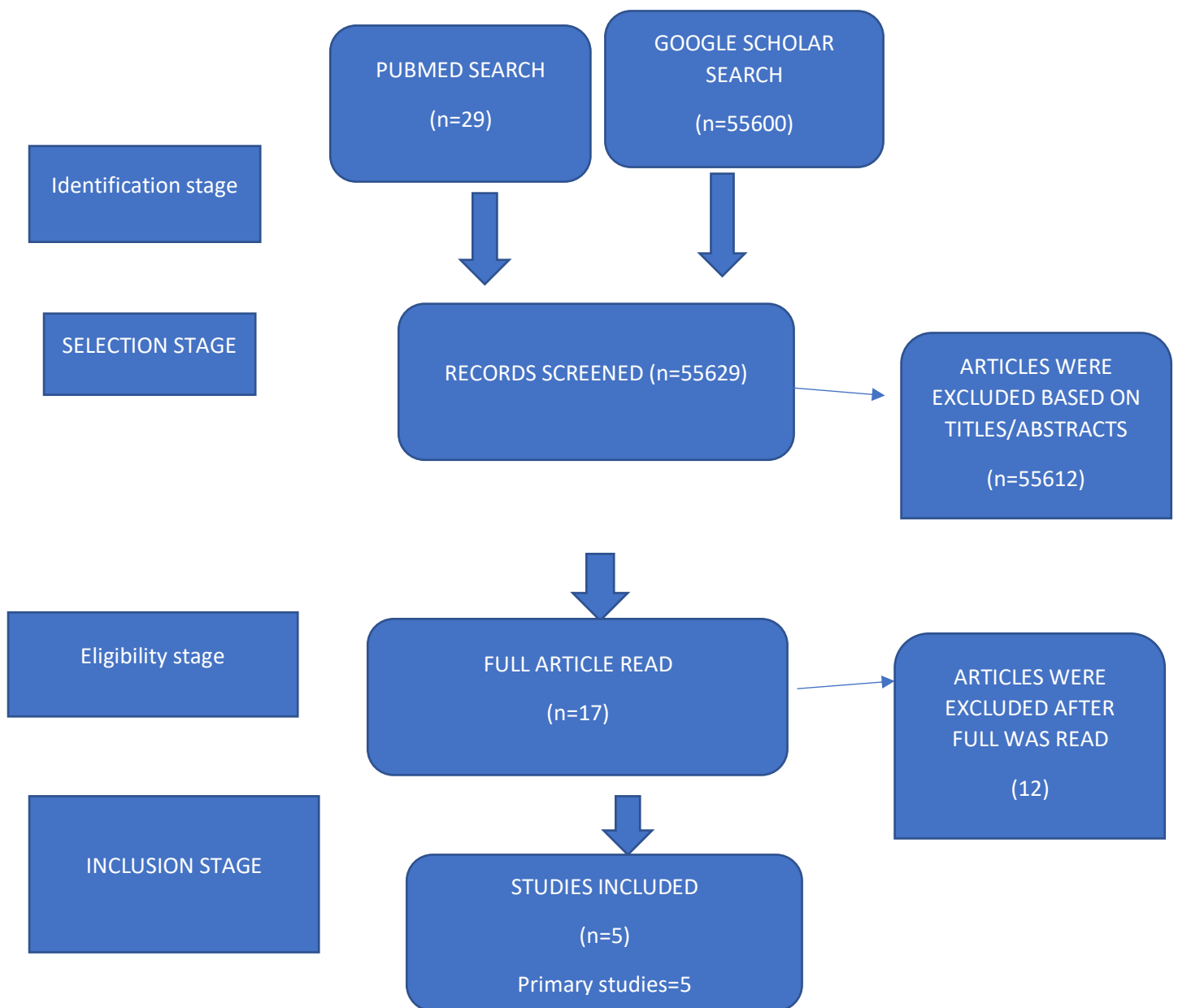


FIGURE 1: PRISMA FLOWCHART OF STUDY SELECTION

RESULTS

Figure 1 shows the processes involved in the screening and selection. The figure looked at what was included and excluded based on the inclusion and exclusion criteria. In all 56,0751 papers were found through the search and five (5) papers were finally selected for the review.

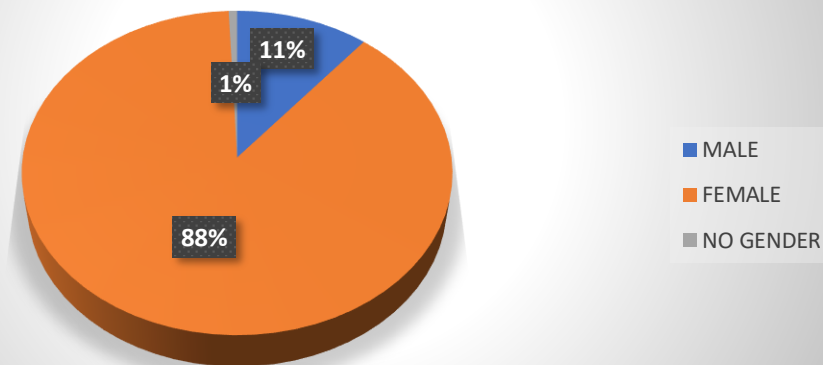
DEMOGRAPHICS

In overall, 12,751 participants were involved in the five articles comprising of 1311 males and 10,580 females and 83 with no gender representing 10.9%, 87.9% and 0.65% respectively. On professional roles, 859 were doctors, 8842 were nurses and 2877 were other healthcare workers representing 6.8%, 70.3% and 22.9% respectively.

VARIABLES	TOTAL, N (n%)
GENDER	
MALE	12042, 1311 (10.9%)
FEMALE	12402, 10580 (87.9%)
PROFESSIONAL ROLE	
DOCTOR	12751, 859 (6.83%)
NURSE	12751, 8842 (70.34%)
OTHER HEALTHCARE WORKERS	12751, 2877 (22.89%)

TABLE 1: Study Demographics of respondents

FIG. 2: GENDER DEMOGRAPHICS OF RESPONDENTS



PSYCHOLOGICAL IMPACTS OF COVID-19 ON RESPONDENTS

Anxiety levels were reported in all five articles. The total of the population that experienced some level of anxiety in all the five articles was 3469/12751 representing 27.2%.

On Anxiety among gender, only one (1) article had segregated data that was used in this analysis. In all a total of 106 males responded and out of which 28 representing 26.4% of them had some level of anxiety symptoms during covid-19 hospital management and treatments. A total of 196 females responded to the survey and out of which 97 representing 49.5% of them had some level of anxiety symptoms during covid-19 management and treatments in the hospital.

On anxiety among professional roles, two (2) articles had segregated data that was used in this analysis. The professional roles were doctors, nurses, and other healthcare workers. Anxiety among doctors during covid-19 hospital treatment and management was 100 out of 353 doctors representing 28.3%. Anxiety among nurses during covid-19 treatment and management was 222 out of 459 nurses representing 48.4%. Anxiety among other healthcare workers during covid-19 hospital treatment and management was 21 out of 199 healthcare workers representing 10.6%.

Depression levels were reported in all five articles. The total of the population that experienced some level of depression in all the five articles was 3287/12751 representing 25.8%.

On depression among gender, only one (1) article had segregated data that was used in this analysis. In all, a total of 106 males responded and out of which 30 representing 28.3% of them had some level of depression symptoms during covid-19 hospital management and treatments. A total of 196 females responded to the survey and out of which 98 representing

50% of them had some level of depression symptoms during covid-19 management and treatments in the hospital.

On depression among professional roles, two (2) articles had segregated data that was used in this analysis. The professional roles were doctors, nurses, and other healthcare workers. Depression among doctors during covid-19 hospital treatment and management was 108 out of 353 doctors representing 30.6%. depression among nurses during covid-19 treatment and management was 253 out of 459 nurses representing 55.1%. Depression among other healthcare workers during covid-19 hospital treatment and management was 21 out of 199 healthcare workers representing 10.6%.

Post-traumatic stress disorder levels were reported in four (4) articles. The total of the population that experienced some level of depression in all the four articles was 5129/12449 representing 41.2%.

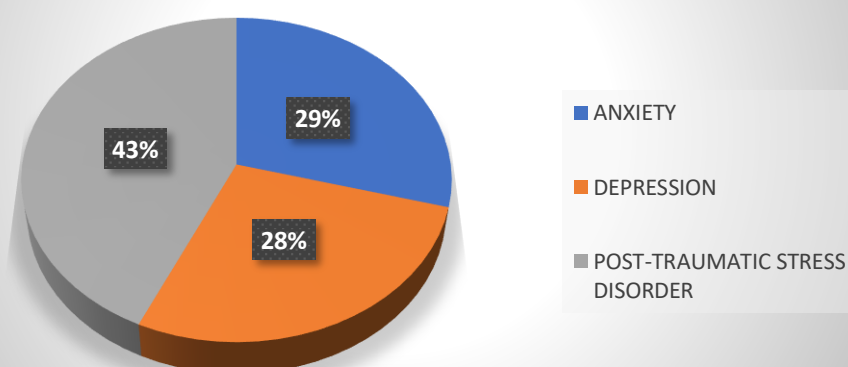
On post-traumatic stress disorder among gender, none of the articles had segregated data that could have been used in this analysis.

On post-traumatic stress disorder among professional roles, one (1) article had segregated data that was used in this analysis. The professional roles were doctors, nurses, and other healthcare workers. Post-traumatic stress disorder among doctors during covid-19 hospital treatment and management was 92 out of 291 doctors representing 31.6%. Post-traumatic stress disorder among nurses during covid-19 treatment and management was 168 out of 344 nurses representing 48.8%. Post-traumatic stress disorder among other healthcare workers during covid-19 hospital treatment and management was 20 out of 74 healthcare workers representing 27.4%.

PSYCHOLOGICAL CONDITION	TOTAL, N (n%)
ANXIETY	12751, 3469 (27.6%)
DEPRESSION	12751, 3287 (25.8%)
POST-TRAUMATIC STRESS DISORDER (PTSD)	12449, 5129 (41.2%)

TABLE 2: PSYCHOLOGICAL IMPACTS OF COVID-19 ON RESPONDENTS.

FIG 3: PSYCHOLOGICAL IMPACTS OF COVID-19 ON RESPONDENTS



VARIABLE	ANXIETY		DEPRESSION		PTSD	
	TOTAL, N (n%)	Odds ratio	TOTAL, N (n%)	Odds ratio	TOTAL, N (n%)	Odds ratio
MALE	106, 28 (26.4%)	0.36	106, 30 (28.3%)	0.31		
FEMALE	196, 97 (49.5%)	0.98	196, 98 (50%)	1.00		
DOCTOR	353, 100 (28.3%)	0.40	353, 108 (30.6%)	0.44	291, 92 (31.6%)	0.46
NURSE	459, 222 (48.4%)	0.94	459, 253 (55.1%)	1.23	344, 168 (48.8%)	0.95
OTHER HEALTHCARE WORKERS	199, 21 (10.6%)	0.12	199, 21 (10.6%)	0.12	74, 20 (27.0%)	0.37

TABLE 3: PSYCHOLOGICAL IMPACTS OF COVID -19 AS AGAINST RESPONDENT'S DEMOGRAPHICS AND ODD RATIO

DISCUSSION

Anxiety, Depression and Post-Traumatic Levels of Respondents As Against National Average In The UK Without Covid-19.

Data from Adult psychiatry morbidity survey conducted in 2014 reported that “the prevalence of anxiety, depression and post-traumatic stress disorder was 3.3%, 5.9% and 4.4% respectively”. This is the prevalence of the population in the absence of covid-19. According to APMS and Lelliot et.al, the working population in the absence of covid has a prevalence of mental health problems at the rates of 17.5% and 14.7%.

This survey reports that anxiety, depression, and post-traumatic stress disorder in the face of covid are at a prevalence rate of 27.2%, 25.8% and 41.2% respectively among healthcare workers in the UK. This rate is higher than the national average in the absence of covid.

This data suggests that covid-19 treatment and management in the hospitals had a serious impact on healthcare workers psychologically.

Anxiety, Depression and Post-Traumatic Levels of Respondents As Against Other Reported Levels In The Face Of Covid-19.

Many research individuals, groups and organizations have conducted a series of research work to ascertain the impact of covid-19 on healthcare workers psychologically in the UK and the rest of the world. “According to the Office for National Statistics in the UK, anxiety levels among the populace were 49.6%”. Research works conducted in Asia and Europe revealed that “the prevalence of anxiety and depression were 31.9% and 33.7% among the population during covid”.

A survey conducted in China by Lai et. al, indicated “that 50% of healthcare workers developed mild depression”. This figure is almost twice as higher as 25.8% as reported in this survey. This can be attributed to the surprising emergence of covid in China before its outbreak in other nations.

According to Ike et. al, the prevalence of anxiety and depression in a London hospital was 41.2% and 42.7% respectively as against 27.2% and 25.8% reported in this survey. Even though the reported figure in this survey is lower than what was being reported in the London-based hospital, it is still an increase in the prevalence of anxiety and depression among healthcare workers in the UK. The reason for the difference may be the pressure from the London-based hospital on healthcare workers because of the population and size of London.

[Anxiety, Depression And Post-Traumatic Stress Disorder On Gender.](#)

“According to Adult Psychiatry Morbidity Survey conducted in 2014, women are three times as likely to experience at least one of the common mental health problems in the UK”.

“According to Ike et. al, the prevalence of anxiety and depression among healthcare workers in a London-based hospital is significantly higher in females than in males”. These reports agree with this review of reported data. According to this review using the odds ratio, females are more than twice as likely to develop anxiety and depression as males.

This review suggests that female healthcare workers were severely affected during the treatment and management of covid-19 in the UK psychologically.

[Anxiety, Depression and Post-Traumatic Stress Disorder On Professional Roles.](#)

“According to Ike et. al, nurses were four times as likely to exhibit some levels of moderate to severe forms of anxiety and depression during the covid-19 disease treatment and management”. This report agrees with this review. In this review, nurses are about three times more likely to develop moderate to severe forms of anxiety and depression as males.

This review suggests that nurses were severely affected during the treatment and management of covid-19 disease in the UK psychologically.

CONCLUSION

Covid-19 just like any pandemic had serious psychological impact on healthcare workers. Covid-19 pandemic treatment and management in the UK hospitals added an extra burden and responsibilities to nurses, doctors, and other healthcare workers. All these new factors had a negative impact on healthcare workers psychologically.

From this review, anxiety, depression, and post-traumatic stress disorder prevalence rates increased significantly among healthcare workers.

Post-traumatic stress disorder had the highest prevalence rate among healthcare workers during the pandemic era because of the trauma and stress associated covid-19 morbidity and mortalities.

Female respondents in this review were the most affected gender. Nurses were also the most severely affected individuals among the different professional roles in the UK.

The findings from the study are key to the health and social care discipline, in that it informs on the various psychological consequences that the health and social care workers are likely to face in line of duty

This review adds up to the numerous research works that support the view that covid-19 negatively impacted healthcare workers psychologically. This review provides enough evidence to support the call for action to be taken by authorities.

RECOMMENDATION

The result of this review is very informative and thus demand an action to be taken. It is in this view that the following recommendations are put forward.

1. An action plan must be rolled out to mitigate the impact that covid-19 have had on healthcare workers in the discharge of their duties during covid-19 disease management and treatment. Luckily all the psychological consequences that could arise have available interventions and thus it is the health setting to set procedures of diagnosing and intervening effectively
2. Authorities must take a cue from the impacts of covid-19 on healthcare workers to help them draw an action plan against future pandemics. While formulating policies on which healthcare workers are to be deployed to offer direct care to the victims of an outbreak, male and experienced healthcare workers should first be taken as a consideration because these are the individuals at lower risk of facing the psychological consequences arising from the pandemic.

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