Systematic Review

DETERMINANT OF MENTAL HEALTH DISORDERS DURING THE COVID-19 PANDEMIC

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ABSTRACT

Introduction: Many people experienced mental health disorders due to the COVID-19 pandemic and if not treated immediately, it will cause serious problems. The aim of this article was to determine the determinants of mental health disorders during a pandemic.
Method: A systematic approach in this review used the PRISMA approach and journal sources from several databases including Scopus, Science Direct, SAGE, NCBI, ProQuest in the 3 last years from 2020 to 2022. Boolean operators within search process used AND and OR. The inclusion criteria were the general public, aged more than 17 years. Exclusion criteria were people with chronic disease and schizophrenia. Literature review, editorial, critical synthesis, and the like were also exclusion criteria for this review.
Results: Overall, this review consisted of 13 articles and all of article designs were cross sectional. Respondents in all articles were the general public, the age of 17-60 years. The determinant of mental health disorders were female gender, older age, history of chronic diseases, exposure to media reporting COVID-19, education, job loss and marital status, especially those who were married
Conclusions: Overall, the community experienced mental health problems during the pandemic.

Keyword: determinants; factors; mental health disorders; COVID-19

1. INTRODUCTION

COVID-19 or Corona Virus Disease 2019 was a new type of virus that was originally discovered in 2019 in the city of Wuhan, China. WHO declared the status of COVID-19 as a pandemic or global epidemic so that it was necessary to implement and prevented the massive spread of the virus (Analysis et al., 2021). This was proven by the implementation of several rules in various countries, including in Indonesia, namely the use of masks, hand sanitizers, disinfectants, regular hand washing and the implementation of physical distancing. The increasing number of positive cases of COVID-19 and the number of victims who died has made people feel anxious, restless and afraid (Lai et al., 2020). This condition was happened a very long time and caused mental health problems in the community. Mental health disorders for a long time will cause disturbances in the individual's daily life (Ettman et al., 2020b).

Many factors caused that some people experienced mental health disorders. Based on research conducted by Maroufizadeh *et al.*, (2020) the factors that caused a person's mental health disorders during the COVID-19 pandemic were losing his job, losing a family member, carrying out several regulations from the government such as lockdown (Ahmed et al., 2020b). Some of these rules also made the community bored in dealing with the COVID-19 pandemic because people's activities and mobility were very limited (Burhamah et al., 2020). The saturation experienced by society changed lifestyle such as high alcohol use, increased smoking consumption and increased consumption of fast food (Rossi et al., 2020). Some of the factors above that caused mental health disorders that were experienced by many people include anxiety,

depression and sleep disorders. Mental health disorders experienced by the community vary widely, ranging from mild, moderate to severe (Peng et al., 2020).

Global data in 2020 cases of major depressive disorder and anxiety disorders increased by 28% and 26%, respectively. Women were more affected than men and younger people were more affected than older age groups. Other disturbances are in the form of post-traumatic stress symptoms of the pandemic which is 24.1%, other psychological disorders are 50% and for sleep problems it was 27.6% (WHO., 2020). Countries with high rates of COVID-19 infection and restrictions on community movement, enforcement and school closures had the greatest increases in the prevalence of major depressive disorder and anxiety disorders. Based on data from The Lancet (2020) a survey in various countries in Europe with a respondent of 220,800 states that the symptoms of severe insomnia were 36.7% and 17.4% for moderate insomnia disorders. Anxiety disorders 25.6% and 23.1% with depressive symptoms. Insomnia symptoms by 40% and insomnia disorders (>25%) were significantly higher in younger women.

Survey conducted on 2,364 respondents by Perhimpunan Dokter Spesialis Kedokteran Jiwa Indonesia (PDSKJI) in May 2020, showed that 69% of respondents experienced psychological problems during COVID-19. The most experienced psychological problems were 67% experiencing depression, 68% experiencing anxiety, 77% experiencing post-traumatic stress and 32% thinking of choosing death or hurting themselves in any way. Based on data from the Ministry of Health (2020). There was an increase in cases of mental disorders due to the COVID-19 pandemic from the previous year. In 2019 the number of people with mental disorders was 197,000 people, while in 2020 it was 277,000 people. Other data states that based on BPS data, people aged 17-30 years are easily angry in the face of the COVID-19 situation, as many as 11.9%, in despair as many as 21%, in anxiety by 25.6% and in excessive fear by 5.5%.

The Corona virus has infected various countries must be concerned (Bogg & Milad, 2020). The characteristic of this virus which was easy to transform made this pandemic last for a long time with uncertain conditions. Several policies in various countries have carried out infection prevention and control to reduce the spread of the virus, such as in America, Italy, France, Canada, India, of course, Indonesia (Shereen et al., 2020). The Indonesian government has also imposed policies on the Indonesian people in an effort to reduce the spread of the virus, namely in the form of movement restrictions, stay at home, social distancing and lock down in various regions. This of course causes people to be psychologically depressed to the point of being disturbedmental health in various societies. The COVID-19 pandemic has certainly had many unusual impacts and influences on people's lives.

The impact experienced by the community were not only on the physical impact but also on the psychological impact. Rossi et al., (2020) in his research mentioned that there were several psychological impacts when a pandemic occured and was felt by the community, namely post-traumatic stress disorder (post-traumatic stress disorder), confusion, anxiety, frustration, fear of affection, insomnia, feeling helpless, anxious to depression. Anxiety was basically a common response that occured in humans. Anxiety was a reaction from the human instinct to survive (Ahmed et al., 2020b). When a person feels anxious, then in fact he is facing something that he perceives as something that endangers or threatens his life (Ettman et al., 2020b). The emergence of this feeling of anxiety affects our biological condition. The body given various reactions that warn that something was threatening (Huang & Zhao, 2020). Physical reactions that can be felt naturally when someone was in a state of anxiety are heart palpitations, sweating, and so on(Wang et al., 2020).

Some of the factors that caused mental health problems in the community were when several companies and factories close, so they have to reduce many of their employees. Based on research conducted by Huang and Zhao (2020) unemployment was one of the factors that caused mental health disorders. Other studies also suggested that the declined in opinion during the pandemic can also caused people to experience mental health problems (Fu et al., 2020). Fear of being infected with COVID-19 was also a very important factor in contributing to a person's mental health disorder. This condition can trigger excessive anxiety in everyone because they were afraid that they will be infected and experience terrible things to death (Lai et al., 2020). The most traumatic factor was the loss of a family member due to COVID-19. Based on research conducted by Burhamah et al., (2020) losing a family member was a very forgotten moment, causing anxiety to depression, especially if you lose several members at almost the same time.

Understanding some of the factors that influence a person's mental health was important. The COVID-19 pandemic has not only caused physical problems but also mental health problems for sufferers and family members. Mental health was a problem that often arises during the COVID-19 pandemic but was often neglected and does not receive special attention. It was important for health workers, especially nurses, to understand the problem of mental health disorders because the interventions that will be given will also have different approaches. So this systematic review will discuss the factors that affected the mental health disorders of the community during the pandemic.

2. METHODS

Guidelines used for achieving a systematic review. These guidelines cover the reasons and objectives of the research, eligibility criteria for studies to be

Table 1. PICOT Framework

PICOT	Inclusion Criteria
Population	the general public, both men and women, aged 18-80 years who experience mental health disorders during the COVID-19 pandemic
Intervention	*population-based surveys*
comparison	No comparison intervention
Outcomes	*to determine the determinants of mental health disorders during a pandemic.*
time	*2020-2022*
Study Design	*cross-sectional study*
Language	*English*
Exclusion criteria:	*Articles that did not discuss mental health disorders during a pandemic, articles without full text and abstracts without intervention details, and studies conducted in languages other than English, as well as non-cross-sectional study designs were excluded.*

included in the article, sources of information, search strategy used, article selection and data collection process, results obtained, methods for assessing the results of data synthesis. This systematic review followed the preferred reporting item guidelines for systematic reviews and meta-analyses (PRISMA).

The literature searched in this study begins with obtaining research journals from several databases including, SCOPUS, CINAHL/EBSCO, PubMed, SAGE and Science Direct. The search for scientific journals or articles starts from the last 3 years from 2020 to 2022 with the equivalent keywords ('determinants', 'factors', mental health disorders', and COVID-19). Boolean operators in the search process use AND and OR. Article search was limited to types that provide full English text.

The inclusion criteria used the population, intervention, comparison, outcome and timing (PICOT) framework, where the population the general public, both men and women, aged 18-80 years who experienced mental health disorders during the COVID-19 pandemic. The interventions provided were focused on population-based surveys. The main outcome of this study was to determine the determinants that could lead to mental health disorders during a pandemic. The articles were taken from the last three years using a cross-sectional study method.

According to PRISMA guidelines, the first step was to search for articles that match the topic based on electronic data. After getting the article, it was selected and then the same article will be deleted. titles and abstracts were screened for eligibility criteria. The entire text of each selected article that met the inclusion criteria was taken for further examination. A secondary search was carried out from the reference list articles to identify additional records. The final stage included articles that were

relevant and met all inclusion criteria in the systematic review.

The method used in this study uses data extraction and structured forms to extract information from the articles included starting from the author, year, country, method, sample, age, intervention, influencing factors, the purpose of the article results to evaluate the effect. intervention.

3. RESULTS

Study Selection

The total articles obtained from search results with keywords that have been determined were 1914 articles from 5 databases, namely 319 articles from Scopus, 353 articles from PubMed, 396 from Ebsco/ Chinalh, 374 from Science Direct and the last 472 articles from Sage. Then 255 were excluded because of duplication of articles and screening based on the title, there were 126 articles that were not appropriate and 1533 were also excluded because they did not match the topic and inclusion criteria, then a total of 78 articles were also excluded because they did not match the abstract and content of the study. The total of articles that have passed the screening were 13 articles.

Article Characteristics

Several parameters used to assess mental health disorders during the pandemic in people who found COVID-19 varied, almost entirely using a web-based approach with a number (n: 10 articles). The use of web-based interventions based on research from (Burhamah et al., 2020a) the use of web-based interventions was considered to have a very positive impact on mental status during the pandemic. It was also stated by (Ahmed et al., 2020a) that the use of web interventions can improve the sleep quality of people with disorders during the pandemic. Another
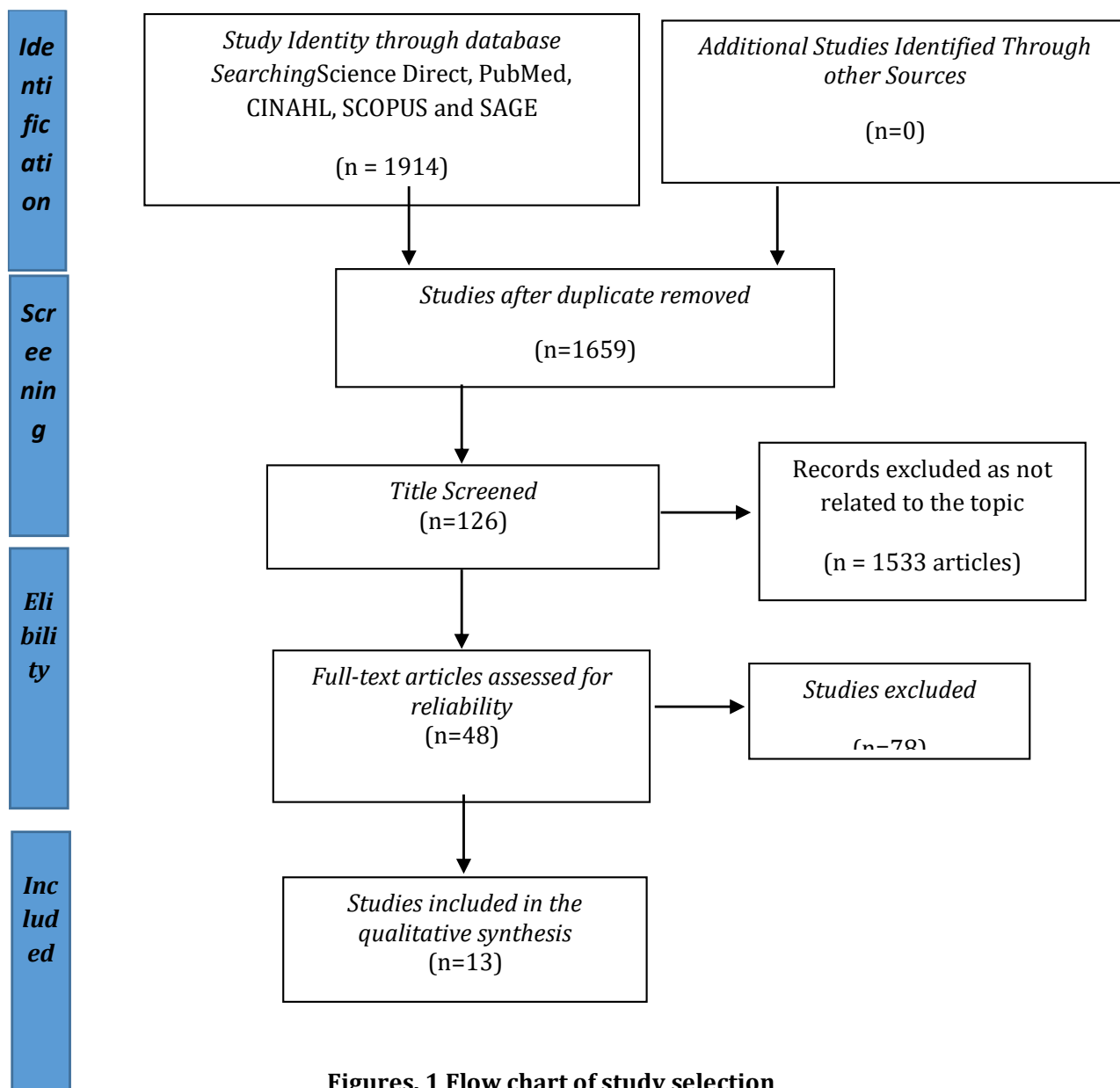
Figures. 1 Flow chart of study selection

study used other platforms to assist the data collection process. As done by (Huang and Zhao, 2020a) (Peng et al., 2020a) and (Zhu et al., 2020), in research using the wechat platform, it was very easy for researchers to collect data. Respondents who met the inclusion criteria were distributed a link containing a questionnaire about anxiety, sleep disorders, and other mental disorders.

The use of combined interventions was also carried out in studies conducted by (Jin et al., 2020; Maroufizadeh et al., 2020a; Peng et al., 2020a; Zhu et al., 2020; Analysis et al., 2021; Chekole and Abate, 2021; Luo et al., 2022). In this study combined online and face-to-face interviews. At the online stage, the selection process was carried out by filling out demographic data questionnaires and several questionnaires related to mental health disorders. The questionnaire was distributed online through social media or certain platforms. After being adjusted to the criteria, several respondents were

given face-to-face intervention. In a study conducted by (Chekole and Abate, 2021) that online intervention was very effective in reducing moderate to high levels of anxiety.

Instruments

Instruments in this systematic review vary widely. The majority of researchers used the Patient Health Questionnaire PHQ-9 instrument with a total of 8 articles. This instrument explores mental health as a whole. Another instrument that is widely used in this systematic review is the Generalized Anxiety Disorder (GAD-7) scale. This instrument specifically explores information related to the anxiety that is being experienced by the patient. Other instruments include WEMWBS (n : 1), AUDIT (n : 1), BAI (n : 1), BDI (n : 1), COVID-19 Stressors Score (n : 1), NHANES (n : 1) , CLIMB (n : 1), CES-D (n : 1), DASS-21 (n : 2), IES-R (n : 5) SAS (n :), SDS (n : 1) , PSQI (n : 1) , PTSS

(n : 1) , PSS (n : 1) 8, IADQ (n : 1) , IES (n : 1), ISI-7 (n : 1), SCSQ (n : 1) and AIS (n : 1).

Determinants Of Mental Health Disorders
The determinants that caused mental health disorders during a pandemic in society vary widely, but several studies reveal the same thing. The most mentioned factors were the type of calamine, age and history of chronic disease. Gender was the most mentioned factor in this systematic review, such as research conducted by Burhamah et al., (2020a); Ettman et al., (2020a); Fu et al., (2020); Huang and Zhao, (2020a); Lai et al., (2020) and Li et al., (2020). Age was also a dominant factor in several studies such as research conducted by (Jin et al., 2020; Zhu et al., 2020; Chekole and Abate, 2021; Luo et al., 2022) while chronic disease is also a dominant factor. in research conducted by (Maroufizadeh et al., 2020a; Zhu et al., 2020; Analysis et al., 2021; Chekole and Abate, 2021). Older age or old age was the age most mentioned in experiencing mental health problems. Meanwhile, the young age showed very different results, which was not too significant for mental health disorders. A history of chronic disease also has a very significant impact on a person's mental health disorders. People who have a history such as diabetes mellitus, heart and lung disease are the main points for someone experiencing anxiety and mental health disorders. An equally important factor for someone experiencing mental health disorders during a pandemic is losing a job. This was in accordance with research conducted by (Ahmed et al., 2020a; Burhamah et al., 2020a; Fu et al., 2020; Peng et al., 2020a; Wang et al., 2020). Several other factors that also affect mental health disorders during the pandemic are living with family members who are infected with Covid-19, low education and lockdown.

4. DISCUSSION

The purpose of this systematic review was to find several articles that identify the factors that influence someone with mental health disorders. The majority of the main factors were gender, namely women. Almost all articles mentioned that women experienced mental health problems more than men. That's because women were too heavy in thinking about their health conditions (Zhu et al., 2020). This statement was supported by research conducted by Luo (2020) which was revealed that gender differences were very influential in stressful situations such as COVID-19. In this study these women had significantly higher rates of depression than men (Chekole & Abate, 2021). In another article, it was stated that the burden of housework and loneliness were triggers for women (Wang et al., 2020). Another factor was having a family member who was infected with COVID-19.
Almost all articles explain this, especially if there were family members who live in the same neighborhood. This will lead to mental health disorders (Maroufizadeh et al., 2020). This was in

accordance with the research statement from Jian (2021) that living with family members or neighbors who have been infected with COVID-19 will trigger more anxiety and depression for fear of being infected with COVID-19 (Jin et al., 2020). Another factor that was no less important was a history of chronic disease. Individuals who have a history of chronic disease will easily experience mental health disorders. This was because individuals with chronic diseases were more vulnerable and dangerous if they were infected with COVID-19 (Huang & Zhao, 2020). This was also related to other factors, namely the news in the media. People who were often exposed to media reports about COVID-19 will tend to be more prone to mental health disorders (Peng et al., 2020). This means that the individual was not ready to face COVID-19. The interesting thing was the education factor (Burhamah et al., 2020).
People with higher education were actually more at risk of experiencing mental health disorders, it was inversely proportional to people with low education who were not easy to experience mental health disorders (Rossi et al., 2020). Loss of work, being laid off, salary cuts and several things related to income were factors that were widely discussed in the articles above. This will also aggravate a person's condition if the individual was already married or married and has children (Ahmed et al., 2020b).

5. CONCLUSSION

This systematic review showed that the factors that influence individuals experience health problems mental were female gender, older age, history of chronic disease, exposure to media reporting COVID-19, education, job loss and marital status, namely those who were married.

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No	Title And Authors	Country & databases	Method and analysis	Samples	Average Age	Interventions	Outcome	Results	Factors
1.	*The psychological burden of the COVID-19 pandemic and associated lockdown measures: Experience from 4000 participants* (Burhamah et al., 2020)	*Canada* & Science Direct	*Method: cross-sectional study* *analysis : Chi-squared test*	*4132 participants* *Lazy: 1268* *Females: 2864*	21-30 years old	*a web-based survey sent through various social media platforms using a questionnaire. Questions were based on demographics, lifestyle during the outbreak, depression and anxiety assessments.* *1. Patient Health Questionnaire (PHQ-9)* *2. Generalized Anxiety Disorder scale-7 (GAD7)*	Aims To assess the impact of the COVID-19 outbreak on mental health in Kuwait, and to explore the potential influence of risk factors.	A statistically significant relationship was found for anxiety and depression during the pandemic, identifying a high-risk group. Psychological support and mental health awareness must be accessible to all individuals during the pandemic. The above results show that the internet/web-based survey intervention through questionnaires is effective for understanding the long-term mental health effects of COVID-19, especially in those infected by virus.	1. Age above 40 years 2. History of chronic disease 3. Loss of a job 4. Student 5. Excessive media exposure about covid-19 news 6. Living with a family member who is infected with Covid-19 7. *lockdown*
2.	*Epidemic of COVID-19 in China and associated Psychological Problems*	*China* &Science Direct	*Method: cross-sectional study*	*1074 participants* *Lazy: -* *Females:-*	21–40 years old	*An online survey withimplement a multidisciplinary mental health team, provide psychiatric care and other mental health services, utilize*	Aims to address gaps in psychological morbidity caused by COVID-19. In addition, this study also reviews	The results showed higher levels of anxiety, depression, insomnia and lower mental well-being than the usual ratio. The results also	1. Woman 2. Have a family member who died from being infected with Covid-19 3. isolation 4. lockdown

Attachment:

No	Title And Authors	Country & databases	Method and analysis	Samples	Average Age	Interventions	Outcome	Results	Factors
	(Ahmed et al., 2020)		*analysis : Chi-squared test*			*online counseling platforms, rehabilitation programmes, ensure specific care for vulnerable groups.* *1. Warwick Edinburgh Mental Wellbeing Scale (WEMWBS)* *2. Alcohol Use Disorder Identification Test (AUDIT)* *3. Beck Anxiety Inventory (BAI)* *4. Beck Depression Inventory (BDI)*	the prevalence of psychological problems due to the ongoing lockdown in China.	reveal that young people are in a more vulnerable position when it comes to their mental health.	
3.	*Prevalence of Depression Symptoms in US Adults Before and During the COVID-19 Pandemic* (Ettman et al., 2020)	*United States of America* &Science Direct	*Method: cross-sectional study* *analysis : Chi-squared*	*1470 participants* *Lazy: 723* *Females: 747*	18-39 years old	population-based surveys using questionnaire media which include: *1. Patient Health Questionnaire (PHQ-9)* *2. COVID-19 Stressors Score* *3. National Health and Nutrition Examination Survey (NHANES)*	Aims to address gaps in reducing the Impact and Life Stressors on Mental Health, Well-being, and factors related to symptoms of depression both during and during the COVID-19 pandemic.	Of all respondents COVID-19 and the Impact of Life Stressors on Mental. The prevalence of depressive symptoms was higher in each category during COVID-19 than before. A higher risk of depressive symptoms during COVID-19 was associated with 95%	1. Revenue drop 2. Loss of a job

No	Title And Authors	Country & databases	Method and analysis	Samples	Average Age	Interventions	Outcome	Results	Factors
						4. COVID-19 and Life Stressors Impact on Mental Health and Well-being (CLIMB)		lower income and having less than $5000 in savings.	
4.	*Factors Associated With Mental Health Outcomes Among Health CareWorkers Exposed to Coronavirus Disease 2019* (Lai et al., 2020)	China &SAGE	*Method: cross-sectional study* *analysis :Mann-Whitney U test and Kruskal-Wallis test*	1830 participants *Lazy: 866* *Females: 964*	26 - 40 years old	hospital-based survey by utilizing health workers, nurses and doctors using a questionnaire which includes: 1. *Patient Health Questionnaire (PHQ-9)* 2. *Generalized Anxiety Disorder (GAD-7) scale*	to assess mental health problems and related factors among Chinese nationals with lost income who were exposed to COVID-19.	Of all participants, 764 (60.8%) were nurses, and 493 (39.2%) were doctors; 760 (60.5%) worked in hospitals in Wuhan, and 522 (41.5%) were frontline healthcare workers. Most of the participants reported symptoms of depression (634 [50.4%]), anxiety (560 [44.6%]), insomnia (427. [34.0%]), and distress (899 [71.5%]).	1. Woman 2. Place to stay close to Wuhan 3. Loss of a job
5.	*Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 outbreak in China: a web-*	China &Science Direct	*Method: cross-sectional study* *analysis :Multivariate logistic regression*	*7,236 participants* *Lazy: 866* *Females: 964*	18-80 years old	a web-based a research that uses a web-based approach to web COVID-19 is sent on the Internet via the WeChat public Platform and mainstream media. All Chinese using WeChat or other social tools	aims to assess the mental health burden of Chinese society during COVID-19 outbreak, and to explore potentially influencing factors regarding	Our study identified overall anxiety disorder, depressive symptoms, and sleep quality. Younger people report significantly higher prevalence and symptoms of depression than	1. Under 35 years old 2. Excessive media exposure about covid-19 news

Attachment:

No	Title And Authors	Country & databases	Method and analysis	Samples	Average Age	Interventions	Outcome	Results	Factors
	based cross-sectional survey (Huang and Zhao, 2020)					can view this survey, and answer a questionnaire which includes *1.* Epidemiology Scale for Depression (CES-D) *2.* *Generalized Anxiety Disorder (GAD-7) scale*	psychological health in Chinese society during the covid-19 pandemic	older people. Compared to other occupational groups, health care workers were more likely to have poor sleep quality and the results showed that those aged <35 years spent more time focusing on COVID-19 and health workers were at higher risk of mental illness.	
6.	*Immediate Psychological Responses and Associated Factors during the Initial Stage of the 2019 Coronavirus Disease (COVID-19) Epidemic among the General Population in China*	China &pubmed	*Method: cross-sectional study* *analysis : Chi-squared test*	*1304 participants* *Lazy: 396* *Females: 814*	18-59 years old	*an online survey*Using the snowball sampling technique, the implementation process is recommended by the Chinese government not to interact directly or face to face. Prospective participants are invited online electronically to complete a questionnaire in Chinese through an online survey platform ('SurveyStar', Changsha Ranxing Science and	The aim of this study was to survey the general public in China to better understand their psychological impact, anxiety, depression, and stress during the early stages of the COVID-19 outbreak. The data will be used for reference in further research.	In total, 53.8% of respondents assessed the psychological impact of outbreaks as moderate or severe; 16.5% reported moderate to severe depressive symptoms; 28.8% reported moderate to severe anxiety symptoms; and 8.1% reported moderate to severe stress levels. Most of the respondents spent 20–24 hours per day at home (84.7%);	1. Woman 2. Student 3. History of chronic disease 4. Health status 5. Excessive media exposure about covid-19 news 6. Have a family member who died from being infected with Covid-19 7.

No	Title And Authors	Country & databases	Method and analysis	Samples	Average Age	Interventions	Outcome	Results	Factors
	(Wang et al., 2020)					Technology, Shanghai, China). 1. *Depression, Anxiety and Stress Scale (DASS-21)* 2. *Impact of Event Scale-Revised (IES-R)*		worried about their family members contracted COVID-19 (75.2%); and satisfied with the amount of health information available (75.1%). Female gender, student status, certain physical symptoms (eg, myalgia, dizziness, coryza), and poor self-assessment health status were significantly associated with greater psychological impact of the outbreak and higher levels of stress, anxiety, and depression ($p<0.05$).	
7.	*Prevalence, risk factors and clinical correlates of depression in quarantined population during the*	*China* &Science Direct	*Method: cross-sectional study* *analysis :ANOVA,*	2237 participants *Lazy: 1220* *Females: 878*	18-70 years old	*an online survey*using a detailed questionnaire via Wechat (Wechat is using a social media app in China) The survey was conducted in their homes, hotels and hospitals during	This study aimed to evaluate the prevalence and clinical correlation of depressive symptoms in the general population	The prevalence of depressive symptoms was 6.21% in quarantined individuals. The depression group was younger, less married and	1. younger age 2. Not married yet 3. Low education

No	Title And Authors	Country & databases	Method and analysis	Samples	Average Age	Interventions	Outcome	Results	Factors
	COVID-19 outbreak (Peng et al., 2020)		Chi-squared test and binary logistic regression analysis			the COVID-19 quarantine period. 1. *self-rating anxiety scale (SAS)* 2. *Self-Rating Depression Scale (SDS)* 3. *Pittsburgh Sleep Quality Index (PSQI)* 4. *Impact of Events Scale-Revised (IES-R)* 5. *post-traumatic stress symptoms (PTSS).*	quarantined during the COVID-19 outbreak in Shenzhen.	educated, and had higher total SAS, PSQI, IES-R scores (all p<0.05), and more avoidance, intrusion and hyperarousal symptoms than the non-depressed group. Correlation analysis showed a significant correlation between SDS scores and the following parameters: age, marriage, education, SAS, PSQI, Total IES-R and its three subscale scores (Bonferroni corrected for all p<0.05).	
8.	*COVID-19 Pandemic and Lockdown Measures Impact on Mental Health Among the General Population in Italy*	Italy & Pubmed	*Method: cross-sectional study* *analysis : multivariate logistic regression analysis*	18,147 participants *Lazy: 3663* *Females: 14,207*	*18-38 years old*	*web-based survey design* using online questionnaires scattered all over the internet, using sponsored social network advertisements along with snowball recruiting techniques. This survey was developed using the	The aim of this study was to assess the extent of mental disorders and to explore the impact of potential risk factors associated with COVID-19.	The level of support for post-traumatic stress symptoms (PTSS) was 6.604 (37%), 3.084 (17.3%) for depression, 3,700 (20.8%) for severe anxiety, 1,301 (7.3%) for insomnia, 3,895 (21.8%) for high perception of	1. younger age 2. Woman 3. Loss of a job 4. lockdown

No	Title And Authors	Country & databases	Method and analysis	Samples	Average Age	Interventions	Outcome	Results	Factors
	(Rossi et al., 2020)					free Google Forms software 1. *Patient Health Questionnaire (PHQ-9)* 2. *Generalized Anxiety Disorder scale (GAD-7)* 3. *Perceived Stress Scale (PSS)* 4. *International Adjustment Disorder Questionnaire (IADQ)*		stress and 4,092 (22,9%) for adjustment disorder. The results of the above study report a suspicion of adjustment disorder.	
9.	Factors associated with mental health results among workers with income losses exposed to COVID-19 in China (Li et al., 2020)	China & pubmed	*Method: cross-sectional study* *Analysis : multivariate logistic regression analysis*	*S:* 398 respondents *Lazy: 201 Females: 197*	18-40 years old	Online surveys and face-to-face interviews by providing questionnaires which include: 1. *Patient Health Questionnaire (PHQ-9)* 2. *Generalized Anxiety Disorder scale (GAD-7)* 3. Impact of Event Scale (IES) 4. Insomnia Severity Index-7 (ISI-7)	This study aims to assess mental health problems.	From the results, it was found that the prevalence rate of depression, anxiety, insomnia, and distress caused by COVID-19 were 45.5%, 49.5%, 30.9%, and 68.1%. Apart from this, the proportion of sex between men and women is almost the same, 50.5% and 49.5% respectively, and the proportion of marital status (restated to be	1. Woman 2. Lockdown 3. Living with a family member who is infected with Covid-19

No	Title And Authors	Country & databases	Method and analysis	Samples	Average Age	Interventions	Outcome	Results	Factors
								married and others including unmarried, widowed, and divorced). the proportion of income loss was mild, moderate, and severe (>0% to 25%, 25-50%, and >50% lower). income rather than income before the epidemic) caused by COVID-19 were 33.9%, 17.6% and 48.5%, respectively.	
10.	COVID-19 in Wuhan: Socio demographic characteristic sand hospital support measures associated with them mediate psychology calimpacton health care workers (Zhu et al., 2020)	China & Science Direct	*Method: cross-sectional study* *analysis : multivariate logistic regression analysis*	*S:5062 respondents* *Lazy: 610* *Females: 4304*	19-49 years old	online survey using the WJX Platform by accessing (https://www.wjx.cn/), and data were collected through an anonymous online questionnaire which was distributed to all HWs via WeChat. 1. *Patient Health Questionnaire (PHQ-9)* 2. *Generalized Anxiety Disorder scale (GAD-7)* 3. *Impact of Event Scale-Revised*	aimed to assess sociodemographic characteristics and hospital support measures associated with the intermediate psychological impact of HWsat Tongji Hospital in Wuhan during the COVID-19 outbreak.	From the results received, 5062 completed questionnaires (77.1%) reported stress, depression, and anxiety symptoms. Female and male responses Health workers(HW) were 82.4% and 71.8%, respectively. Most of the subjects were in the age interval 19 29 (40.1%) and 30 49 years (56.4%).Health workers(HW women	1. Woman 2. Have a history of chronic disease 3. Living with a family member who is infected with Covid-19

No	Title And Authors	Country & databases	Method and analysis	Samples	Average Age	Interventions	Outcome	Results	Factors
						Questionnaires (IES-R)		accounted for 85.0% of the current study. Overall, characteristics for the total sample (n=5013.5%.)vs. non-anxiety (n=3844), psychological stress (n=1509,29.8 %) vs non-psychologist stress(n=3553)	
11.	Prevalence of Anxiety and Depression in General Population of Iran during the COVID-19 Pandemic: A Web-Based Cross-Sectional Study (Maroufizadeh et al., 2020)	Iran &SAGE	*Method: cross-sectional study* *analysis : Simple and multiple logistic regression analyses*	*S: 5328respondents* *Lazy: 1966* *Females: 3362*	18-56 years old	*The online survey*using online questionnaires through social media such as WhatsApp and Telegram. *1. Patient Health Questionnaire (PHQ-9)* *2. Generalized Anxiety Disorder scale (GAD-7)*	to determine the prevalence of anxiety and depression and their associated factors in general the Iranian population during the COVID-19 pandemic.	The mean total scores of GAD-7 and PHQ-9 were 7.17 (SD=5.42) and 7.80 (SD=6.68), respectively. The prevalence of anxiety, depression, and anxiety-depression comorbidities were 30.1%, 33.4%, and 22.1%, respectively. According to the adjusted analysis, anxiety was significantly associated with being female, are young and middle-aged, unemployed or housewives, suffer	1. Woman 2. Loss of a job 3. Have a history of chronic disease 4. Living with a family member who is infected with Covid-19

No	Title And Authors	Country & databases	Method and analysis	Samples	Average Age	Interventions	Outcome	Results	Factors
								from chronic diseases, think about COVID-19 for a long time, have family members, friends, and/or relatives infected with COVI-19, and death of family members, relatives or friends due to COVID-19 19. The same results were also found for depression. Furthermore, depression was associated with being single, being a resident in an urban area, and having high-risk individuals in the family.	
12.	Psychological Effects and Associated Factors of COVID-19 in a Mexican Sample (Nadia et al. 2021)	Mexico, America & Pubmed	*Method: cross-sectional study* *analysis :*Univariate generalized line	*S:1104 respondents* *Lazy: 418* *Females: 686*	18 -62 years old	An online survey Using an anonymous online questionnaire in Spanish administered via an online survey platform ("Google Forms", Google Inc., CA). 1. Impact of Event Scale-Revised (IES-R)	This study aims to assess levels of psychological distress (anxiety, depression, and stress) and identify risk factors that contribute to poorer outcomes during the	A total of 50.3% of respondents rated psychological distress as moderate-severe; 15.7% reported moderate-severe depressive symptoms; 22.6% reported moderate-to-severe anxiety symptoms; and	1. woman 2. widower or widow 3. Less exposure to the media about covid-19 news 4. Living with a family member who is infected with Covid-19 5. Lockdown

No	Title And Authors	Country & databases	Method and analysis	Samples	Average Age	Interventions	Outcome	Results	Factors
						2. Depression, Anxiety, and Stress Scale (DASS-21)	COVID-19 outbreak.	19.8% reported moderate-to-severe stress levels. Female gender, older age, divorced status, lack of confidence regarding test safety, low satisfaction of health information related to COVID-19, history of direct or indirect contact with confirmed cases of COVID-19, living with only 1 other person, and spending >9 hours/day at home was associated with greater psychological distress and/or levels of stress, anxiety, and depression.	
13.	Psychological health, sleep quality, and coping styles to stress facing the COVID-19 in Wuhan, China	China & CHINAHL	*Method: cross-sectional study* *analysis :*Multivariate logistic regression models	: 1242 respondents *Lazy: 376* *Females: 866*	Over 30 years old	an online questionnaire survey using a questionnaire that can be completed via online survey platform ("SurveyStar," Changsha Ranxing Science and Technology, Shanghai, China).	to find out the demographic characteristics of the respondents and the differences between their anxiety and depression status.	The results showed that 27.5% experienced anxiety, 29.3% experienced depression, 30.0% experienhqced Sleep disturbances, and 29.8% had a passive response to COVID-19. Women were risk factors for anxiety (OR = 1.62)	1. Age 2. Revenue drop 3. Loss of a job

Attachment:

No	Title And Authors	Country & databases	Method and analysis	Samples	Average Age	Interventions	Outcome	Results	Factors
	(Fu et al., 2020)					1. Disorder 7-Item Scale (GAD-7) 2. Patient Health Questionnaire 9-Item Scale (PHQ-9) 3. Simplified Coping Style Questionnaire (SCSQ) 4. Athens Insomnia Scale (AIS)		and sleep disturbances (OR = 1.36); being married was associated with anxiety (OR = 1.75); have a monthly income of between 1000 and 5000 CNY. risk factors for anxiety, depression, and sleep disorders; not exercising is a common risk factor for anxiety, depression, sleep disturbances, and passive coping styles; and have a higher level of education (bachelor's degree and above) (OR = 1.40) was associated with sleep disturbances. Wuhan residents psychological status and sleep quality are relatively worse than before the COVID-19 epidemic; However, the level of passive coping to stress is relatively higher.	