Mental Health and Planetary Health

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Abstract

Aim: While the mental health burden of the COVID-19 pandemic is turning into a public health problem, the global dimension of the problem makes it necessary to address the issue in the context of planetary health for a solution. The goal of this study was to examine the contents and challenges of managing mental health issues at the planetary health level during COVID-19.

Methods: The bibliographic method was used. Thesis were searched by searching YOKSIS and PubMed for reviews with the keywords "mental health, planetary health, and COVID-19."

Results: In the search made in June 2021, from 2018 till 27.02.2022; 19 related articles have been found. The most proportion of published reviews was about patients' mental health via telehealth; only three of the reviews were about healthcare workers. Two of the researches were excluded because they were not reviewed. The same keywords are used for searching among the thesis of YOKSIS, only one research was found about fuzzy cognition maps and decision making.

Conclusions: Research on managing mental health problems and planetary health during pandemics in the family medicine discipline is far from providing sufficient literature diversity. Advances in data analytics and information technologies are opening up new medical clinical problem-solving methods. In order to measure the effects of the COVID-19 pandemics and to establish global well-being and higher planetary mood in the future, research at the level of the individual, society and planet are required.

Keywords: *Mental health, planetary health, family medicine*

1. Introduction

The global impact of the COVID-19 pandemic has made the eyes turn to the concept of planetary health, which has been predominantly included in the scientific literature so far. In this process, where the well-being of our world has a direct impact on society and individual health, the increase in the incidence of common mental illnesses draws attention. Examining the effects of planetary health on mental health during the pandemic period with an interdisciplinary perspective will help us evaluate the future of humanity and our planet in terms of health. This study aims to examine the scientific literature in the field of planetary and mental health since the beginning of the global epidemic caused by Coronavirus.

Understanding the concept of global (global) health is an important step that must be passed before working on Planetary health. The birth of the concept of global health is related to the mass experiences of humanity in the 20th century[1]. Efforts to erase the traces of global devastation and improve public health indicators after the Second World War have pushed states and international organizations to show a global reaction[2,3]. As a result of the establishment of the World Health Organization and the production of new strategies and policies, the framework of today's global health concept has been formed. Global health is defined as a developing discipline in the field of health sciences and under the wings of the branch of public health[4]. However, it is necessary to introduce interdisciplinary approaches, especially when it comes to global impact and global field solutions[5]. In the field of global health, a significant accumulation of scientific literature and theory has emerged, thus paving the way for interventions by health service providers and policy makers that have a significant impact. Access to global well-being is related to the health of nations and the demographic factors that affect them; It is also related to the health of the planet as well as all the ecological systems within it, and Planetary Health, a new field of study that will affect the 21st century, has been born.

These developments on a global scale heralded the arrival of a new concept. The article titled "From Public to Planetary Health: A Manifesto" published in the prestigious scientific journal Lancet was a milestone[6]. The traditional public health approach, with its preventive medicine mission, made significant contributions to the improvement of health indicators and the establishment of equal opportunities in health. The Planetary Health concept goes beyond this; aims to save the future of humanity and the sustainability of

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Figure 1

Network map of five or more repeated keywords and years connected exchange

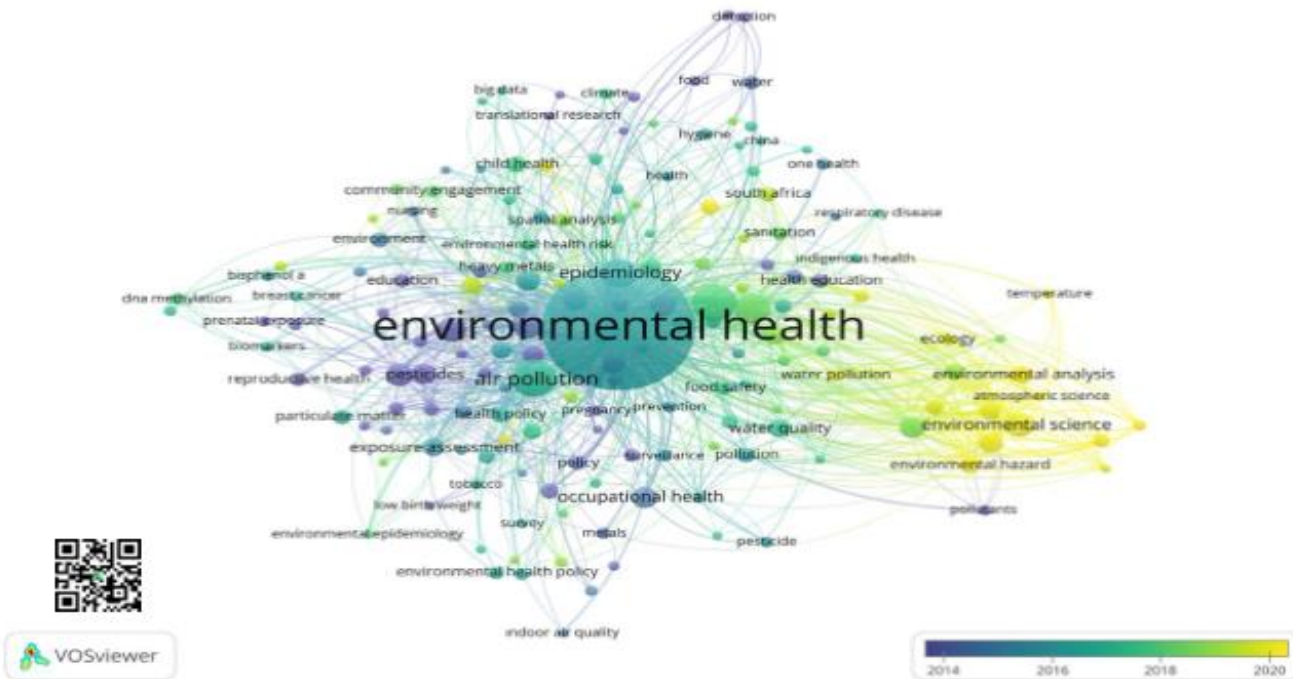
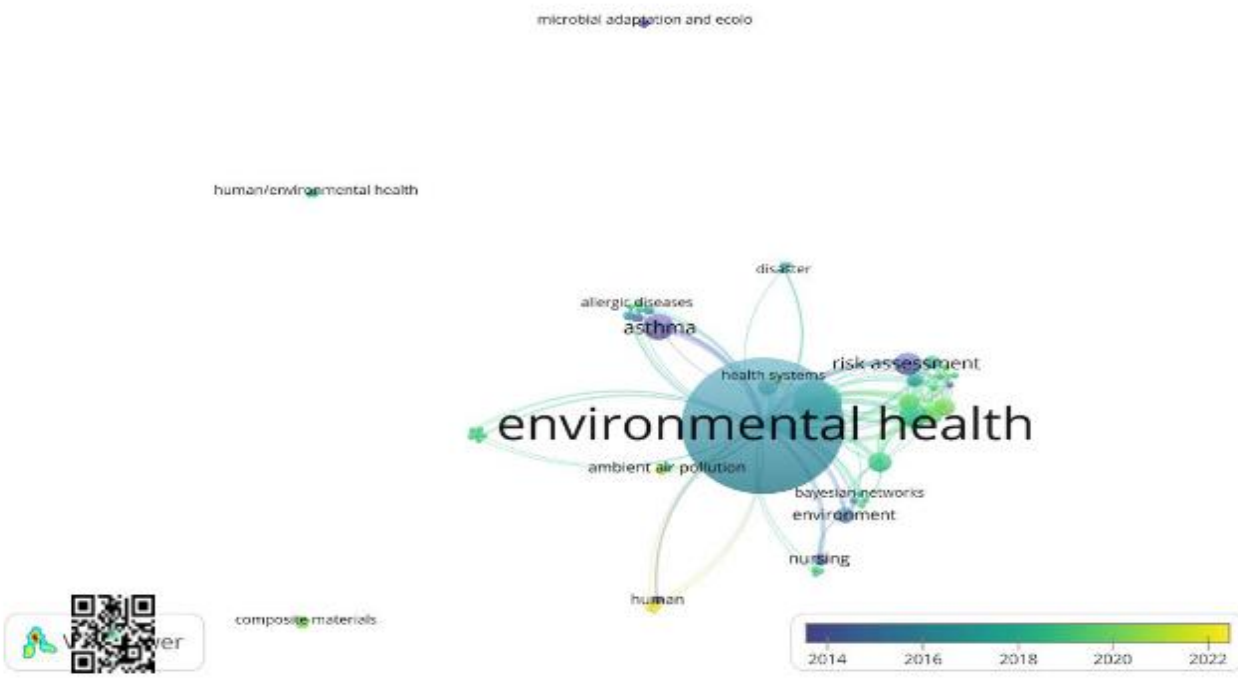


Figure 2

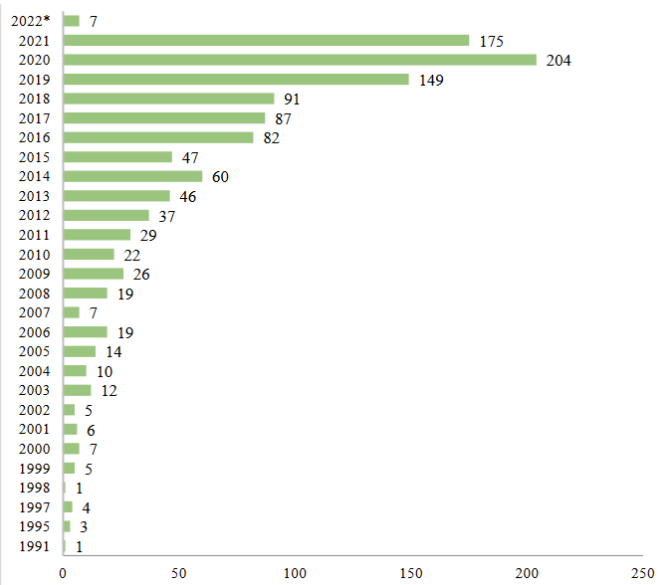
The network map of the keywords used in the articles produced in Turkey and the years connected exchange



The prevalence of mental diseases, especially depression and anxiety, has increased with a high momentum during the COVID-19 era. According to the results of a study by Xiong, Jiaqi et al. relatively high rates of symptoms of anxiety, depression post-traumatic stress disorder, psychological distress and stress are reported in the general population during the pandemic in China, Spain, Italy, Iran, the US, Turkey, Nepal, and Denmark. Female gender, younger age group (≤40 years), presence of chronic/psychiatric illnesses, unemployment, student status, and frequent exposure to social media/news concerning COVID-19 were defined as risk factors associated with distress measures[10] Today, this global crisis due to a virus has affected people's mental health, consumption and lifestyle behaviors. Tomorrow, many chemical, nuclear, economic and astronomical phenomena will affect the health of society and individuals. In this context, we aimed to compile studies dealing with planetary health and mental health in order to give a global, rapid and evidence-based reaction to public health emergencies.

Table 1

Number of articles containing the keyword "Environmental Health" by year.



*Data for only the first 11 days of 2022.

2. Materials and methods

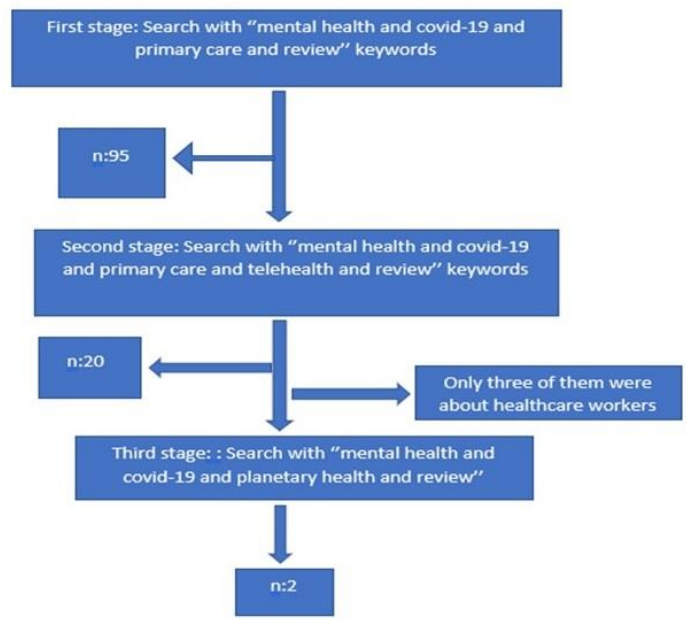
This study was proposed on the basis of the (PRISMA) guidelines for systematic review. The reviews that were published via PubMed were selected by using keywords as "mental health, planetary health and COVID-19" The same keywords used for searching among thesis of YOKSIS.

3. Results

In the search made in June 2021, from 2018 till 27.02.2022; 19 related articles have been found. The most proportion of published reviews was about patients' mental health via telehealth; only three of the reviews were about healthcare workers. Two of the researches were excluded because they were not reviewed. The same keywords are used for searching among the thesis of YOKSIS, only one research was found about fuzzy cognition maps and decision making.

The review was carried out in three main databases: Academic Search Complete, Complementary Index, and MEDLINE. According to database screenings, 118 articles were identified and 76 of them were excluded on the basis of exclusion criteria (see flowchart 1). Demographics, personal support/self-care resources, and income/financial concerns were identified as protective factors by researchers, while mental health distress, as well as two additional variables: health/social status and general knowledge/government mistrust were non-protective factors[11].

Flowchart



COVID-19 pandemics particularly effected vulnerable groups. Ma et al. (2021) conducted a systematic review and meta-analyse about mental health problems among children and adolescents in COVID-19 times[12]. The literature search was carried out in PubMed, Web of Science, PsycINFO, and two Chinese databases for researches published from December 2019 to September 2020. Twenty-three studies with 57,927 children and adolescents were listed. Depression, anxiety, sleep disorders, and posttraumatic stress symptoms were evaluated in 12, 13, 2, and 2 studies. Meta-analysis of results showed that the pooled prevalence of depression, anxiety, sleep disorders, and posttraumatic stress symptoms were 29%, 26%, 44% and 48% respectively. The subgroup meta-analysis emerged that adolescents and females have higher prevalence of depression and anxiety compared to children and males.

Another group that was primarily under scrutiny was healthcare workers, who were the pioneers of the struggle on the field. De Kock et al. discussed the implications of supports for providing psychological wellness of healthcare workers during pandemics[13].

Reaearchers searched across adatabases of Medline, EMBase, HMIC and PsychInfo. 82 studies were assessed for eligibility and only twenty-four published studies met the inclusion criteria . 22 studies directly assessed the healthcare workers' levels of psychologic symptoms. Another study expressing the universal struggle of healthcare professionals is a review by Chersich et al., in which they scanned the medical literature as of March 24, 2020[14].

As a result of the Medline (Pubmed)-based research, 88 studies were identified, some of which addressed the African experience in

the protection and care of healthcare workers in the event of an epidemic, including HIV and EBOLA infections. Another point that makes this study valuable is that the pandemic is more difficult in middle and lower income group countries and all countries are affected by this situation due to its global nature. Kola et al. evaluated the COVID-19 period in developing countries and the third world in scope of mental health[15].

4. Discussions

In order to make mental health care sustainable under prohibitions and restrictions in various regions, reviews examining digital health interventions were carried out. In study conducted by Wynn, it was underlined that video consultations between patients and physicians increased in Norway during the pandemic process, and this increase was seen especially in primary care and mental health areas[16]. In a narrative review conducted by Cunningham et al., based in the United States, telemedicine applications in the field of child mental health were reviewed[17]. 876 potential studies were included in this research, of which 55 met the inclusion criteria. A deeper reading of the available data showed that 28% to 36% of health complaints during the global pandemic were related to mental health. Digital solutions will play an important role in solving this problem.

We see that two of the remarkable studies conducted in North America were revealed in Canada. Strudwick and his friends published a rapid review on telemedicine interventions to make mental health services sustainable during the COVID-19 era[18]. This study was conducted by using several databases and popular mobile app libraries. During the closure period, 31 mobile applications and 114 web-based services consisting of websites, forums and telemedicine initiatives were identified, which were heavily used by the Canadian people and included information, suggestions and applications on mental health.. Another study was conducted by Xie et al.; has focused on publication trends titled telemedicine from past to present[19]. This study, also based in Canada, evaluated telemedicine articles in the field of mental health between 1976 and 2021. As a result of the literature review, 810 articles including 29 randomized controlled trials and 6 systematic reviews were seen. While there was one study per year in 1976, 80 publications were published in 2020. Telepsychiatry, COVID-19, mental health and primary care were prominent as the main keywords

Family Medicine and mental health care are at the intersection of all research. This situation points to family physicians as qualified pioneers of digital transformation in health. Rohilla et al., in their study published in June 2020, processed this mission within the framework of the COVID-19 projection[20]. In the pandemic conditions, many mental health problems have been solved at the initiative of primary care physicians. Sometimes they have solved problems with the remote support of a mental health professional, sometimes by themselves. The effectiveness of telemedicine applications in terms of the sustainability of community-oriented mental health services is now a reality with scientific evidence.

There are many electronic systems that offer both visual and auditory communication. There are opportunities for family physicians to access patients who cannot reach health facilities due to legal restrictions or physical barriers, and to consult with mental health professionals when necessary. Policy makers and practitioners in the field should be willing and courageous in establishing the infrastructure and remote initiatives on this issue.

Primary care physicians, who produce community-oriented solutions to daily clinical problems, can overcome global problems with planetary-oriented solutions during the pandemic process. Pescott in her study published in 2020 examined the effects of biodiversity on the immune system, especially on allergic reactions[21]. The immune system is a marker for measuring the effects of environmental factors on the human organism and a data source that reflects the distance between our current life and our evolutionary past**.** Organ systems, which are functional parts of the human organism, interact with the biological and ecological existence of the planet. Family physicians as expert generalists in medicine; will fight global problems such as epidemics and cancer by using all means, including information and communication technologies and the most up-to-date evidence-based data. Within the framework of this research, the hot topics of the emerging literature and the importance of community-oriented approaches and digital initiatives are discussed.

The richness of literature in the field of planetary health will create an area of influence that extends from the minds of researchers to the practical applications of clinicians, from humans to organic and inorganic components of the planet. Menculini and colleagues discussed the effects of the urban environment in the context of migration and air pollution[22]. 33 of 663 studies evaluated in various databases were accepted under this narrow review14 studies were related to air pollution and related factors, and 19 studies were related to the health effects of migration. Within the scope of this research, it has been observed that atmospheric particulate matter density causes viruses to stay alive longer and to transmit at longer distances. In addition, the unusual immune response of sick individuals in areas with intense air pollution; Increasing the rates of death, sequelae and intensive care unit admissions has led to the definition of air pollution as a potential risk factor for mental health.

5. Conclusions

The rapid spread of urbanization poses new health threats for vulnerable groups such as immigrants and the poor. Failure to provide standard hygiene conditions, establishment of occupational health and safety, social support programs and difficulty in accessing health institutions make the problem more complex.

Nowadays earthquakes, flood, drought are the main reasons of starvation, lack of sheltering, migration, and also more people who would be handicapped, ad/or mental problems. This field needs more evidence-based sustainable projects.

Conflict of interest statement

Author declare that they have no financial conflict of interest with regard to the content of this report.

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