KOZIOŁ, Ilona Zofia, BUDZYŃSKA, Julia, LEŚNIEWSKA, Magdalena, KOPYSTECKA, Agnieszka & PATRYN, Rafał. Impact of the COVID-19 pandemic on racial and ethnic discrimination - a systematic review. Journal of Education, Health and Sport. 2023;13(3):234--244. eISSN 2391-8306. DOI http://dx.doi.org/10.12775/JEHS.2023.13.03.032 https://apcz.umk.pl/JEHS/article/view/41798 https://zenodo.org/record/7613533

The journal has had 40 points in Ministry of Education and Science of Poland parametric evaluation. Annex to the announcement of the Minister of Education and Science of December 21, 2021. No. 32343. Has a Journal's Unique Identifier: 201159. Scientific disciplines assigned: Physical Culture Sciences (Field of Medical Sciences); Health Sciences); Health Sciences, Field of Medical Sciences and Health Sciences); Punkty Ministerialne z2019 - aktualty rok 40 punktów. Załącznik do komunikatu Ministra Edukacji i Nauki z dnia 21 grudnia 2021; L. D. 3233. Posiad Unikator Zasopisma: 201159. Przypisane dyscypliny naukowe: Nauki o kulturze fizycznej (Dziedzina nauk medycznych i nauk o zdrowiu); Nauki o zdrowiu (Dziedzina nauk medycznych i nauk o zdrowiu). © The Authors 2023;

© The Authors 2023; This article is published with open access at Licensee Open Journal Systems of Nicolaus Copernicus University in Torun, Poland Open Access. This article is distributed under the terms of the Creative Commons Attribution Noncommercial License which permits any noncommercial use, distribution, and reproduction in any medium provided the original author (s) and source are credited. This is an open access article licensed under the terms of the Creative Commons Attribution Non commercial license Share alike. (http://creativecommons.org/licenses/by-nc-sa/4.0/) which permits unrestricted, non commercial use, distribution and reproduction in any medium, provided the work is properly cited. The authors declare that there is no conflict of interests regarding the publication of this paper. Received: 09.01.2023. Revised: 18.01.2023. Accepted: 06.02.2023.

Impact of the COVID-19 pandemic on racial and ethnic discrimination - a systematic review

Ilona Kozioł*1, ORCID: 0000-0003-3154-5356 e-mail: ilona.koziol9@gmail.com,

Julia Budzyńska¹, ORCID:0000-0002-2737-1069, e-mail: julciab42@gmail.com,

Magdalena Leśniewska¹, ORCID: 0000-0001-8519-7655, e-mail: magdalenagim16@gmail.com,

Agnieszka Kopystecka¹, ORCID: 0000-0003-0740-8394, e-mail:aga.kop@interia.eu

Rafał Patryn²,ORCID: 0000-0003-0022-5413, e-mail:rafal.patryn@umlub.pl

*corresponding author

¹Students' Scientific Group on Medical Law at the Department of Humanities and Social Medicine, **Medical University of Lublin**

² Department of Humanities and Social Medicine, Medical University of Lublin

Abstract

The COVID-19 pandemic has affected the entire society, being particularly detrimental to ethnic and racial minorities. Moreover, the problems faced by these communities are characterised and the measures that can be implemented to improve their situation are put forward. Many authors have suggested introducing the solutions according to the socio-ecological model which considers individual, organisational, community and policy factors. Due to the lack of trust of ethnic minorities in health care, no effort should be spared to restore their trust. To achieve this goal, educational programs should be carried out to dispel doubts about research and treatment. Furthermore, the impact of social media on the dissemination of discriminatory content should be meticulously analysed. The present paper is a systematic review of current literature, which analyses the authors' opinions on racial and ethnic discrimination during the COVID-19 pandemic.

Keywords: discrimination, racism, racial minorities, ethnic minorities, Blacks, Asians, COVID-19 pandemic

INTRODUCTION

The COVID-19 pandemic has had an impact on the lives of all social groups, particularly ethnic and racial minorities, posing greater challenges to them and adversely affecting their lives and functioning [1-4]. In recent years, researchers have been increasingly interested in the wide-ranging issue of racial inequality and its effects on human health, especially in the ways that ethnic discrimination affects well-being during the COVID-19 pandemic [5-7].

Living with a pandemic requires outstanding coping abilities, social support and psychiatric care. The above needs are even greater in vulnerable and often rejected communities (e.g. people of colour), who often experience unequal access to health care [8]. Recent studies have demonstrated that even after accounting for numerous factors such as socioeconomic status, demography, occupation, health care resources, and pre-existing health conditions, regions with more racial minorities still show higher infection and/or mortality rates [9-11]. In her commentary, E. Pettigrew has put forward a thesis that discrimination and difficult access to health services of racial minorities result in higher COVID -19 mortality and infection rates as well as higher mortality from other diseases [7,12]. The Centers for Medicare & Medicaid Services (CMS) report reveals alarming racial and ethnic health disparities. African Americans are 2.3 times more likely to be infected with COVID-19 than White individuals. Hispanics are twice more likely to develop COVID-19 and 2.6 times more likely to be hospitalized [13,14]. In the above communities, economic limitations were visible even before the pandemic due to limited access to health care. The pandemic has exacerbated health-related socio-economic risks, such as domestic violence, unemployment, poverty, food shortages and housing insecurity [8,15].

Many studies have demonstrated that racism can greatly affect mental and physical health, thus increasing cardiovascular and endocrine risks as well as incidence rates of autoimmune diseases [16]. The study by Baptist has found that the COVID-19 pandemic was particularly difficult for ethnic minority individuals with asthma, who reported higher incidences of COVID-19 infections, more cases of losing jobs due to COVID-19, difficulties with getting asthma medications during COVID-19. Moreover, living in a community with high numbers of COVID-19 cases was mentioned [17]. The data of the CMS COVID-19 report have demonstrated that the highest rates of morbidity and hospitalization were recorded among individuals with end-stage renal disease (ESRD) [13,14]. During the COVID-19 pandemic crisis, there are increasing numbers of discussions about who deserves medical support when there is a shortage of resources [18].

In her paper, Susan M. Reverby mentions the examples from the history of science that have used racial minorities for experimental purposes. For this reason, racial minorities show a significant lack of trust. Mistreatment by governments, police abuse and other experiences of discrimination based on race or migrant status are examples of a loss of trust of minorities in the authorities of their host countries. For instance, the need to register online for vaccinations exclude those who are deprived of access to the Internet (or unable to use it) [19,20].

One of the chief executives of the World Health Organization (WHO) has emphasized that stigma can bring more harm than the virus itself [21]. The resultant Black Lives Matter movement has raised awareness of structural racism defined as "a system in which public policies, institutional practices, cultural representations, and other norms work in various, often reinforcing ways to perpetuate racial inequality" [22].

AIM AND METHOD

The aim of the study was to review the most up-to-date literature available in the PubMed database (articles, research studies, reviews, preliminary reports) concerning the impact of the COVID-19 pandemic on ethnic and racial discrimination. The phrase "racism" and "COVID-19" was used to search the database. The search criteria were all open access, 2020 and 2021, english. One hundred and forty-three results were obtained. Based on the analysis of abstracts, the publications inconsistent with the study subject were excluded. The final detailed analysis was carried out on 68 articles supplemented by a quantitative analysis of the collected bibliographic data. The material was analysed by two independent researchers.

ASIANS

Racial discrimination against Asians began already in the 19th century. For instance, the term "yellow danger" was used to describe people of Asian origin, which supported legislative discrimination [16,23]. In the era of COVID-19, an increase in anti-Chinese sentiment or racism has been noted, causing shame and stress among Chinese citizens and even other Asians, and thus stigmatising them [24,25]. Since the SARS-CoV-2 epidemic started in Wuhan, Asians were considered the first carriers of the infection. This led to the labelling of COVID-19 as a "Chinese virus," which has affected the stigmatisation of Asian groups in the United States [25,26]. The stigma associated with anxiety about the possibility of being infected with COVID-19 significantly affected travellers from East Asian countries. They were spoken about in a very negative way in the media around the world, which influenced the public opinion [26,27]. The stigmatising terms such as "Wuhan virus", "Kung Flu" or "Chinese virus pandemic" spread rapidly, affecting various Asian groups, all of which experienced offensive language used about them on social media platforms or repeated by politicians in public statements [26,28-34].

Regardless of their health status, Asians, especially those of Chinese descent, face verbal and even physical harassment in the workplace. According to Chen Y, Wang Z, Dong W and co-authors, discrimination can directly and indirectly influence subjective self-perception of health. The implicated strong mediators impairing self-assessment of health among Asians are mental suffering (depression, anxiety) and impaired social support due to isolation (friends and family) [35]. During the COVID-19 pandemic, the incidence of verbal attacks and physical assaults on Asian Americans has increased. Many Asians report fear and anxiety resulting from pandemic-related discriminatory behaviour [36,37]. On March 19, 2020, the Asian Pacific Policy and Planning Council (A3PCON), a coalition of Asian American and Pacific Islander (AAPI) community organizations, established a public COVID-related discrimination reporting centre. During the first month, the centre received 1497 reports of discrimination associated with COVID-19, ranging from verbal harassment and spitting to physical assault and a ban on entering the facilities [38,39]. Between March 2020 and March 2021, Stop AAPI Hate received 6,603 reports of hate incidents against Asia (i.e., verbal harassment, avoidance, physical assault); most reports concerned Chinese, Korean, Filipino and Vietnamese adults and 7% of the

reports were about Asians aged 60 and over [40,41]. The study of attitudes of U.S. residents towards ethnic groups during the COVID-19 pandemic has demonstrated that 40% of respondents were discriminatory towards people who "look Asian" [42-44].

The counties with higher populations of Asian Americans strictly adhered to the stay-at-home order, both in terms of reducing the number of points of interest (POI) visits and increasing the proportion of people staying at home, as compared to other minorities, i.e. Hispanics, Whites, and African Americans. The lowest infection rates were observed in the counties with more Whites and Asians, followed by African Americans, other minorities, and Hispanics [9]. Approximately 66% of senior Asians who live in poverty live with their families, compared with 40% of senior Asians in New York City [40,45]. Furthermore, more than 20% of older people from South Asia, the Philippines and Vietnam live in extended family houses [40]. Economically unstable individuals are more likely to become infected with COVID-19 and affected by its consequences, partly because they cannot keep social distances due to crowded housing conditions [40,46].

A survey of U.S. residents in 2020 has demonstrated a positive correlation between fear of COVID-19 and negative attitudes toward the Asian community, which confirms that fear can be a predictor of negative racist attitudes. Additionally, the results have suggested that knowledge about the symptoms and transmission of COVID-19 is significantly negatively related to prejudices against Asian communities, implying that poorer awareness and knowledge are associated with a more negative attitude towards Asians [42]. In a 2020 survey, both Asians and non-Asians reported witnessing or hearing about anti-Asian discrimination, such as physical and verbal attacks, or harassment of friends/family who are or were believed to be Chinese. The same study has indicated that the most common affective reactions to discrimination against Asia are fear and anxiety/despair or increased fear for one's own life or lives of loved ones. This fear was more than a slight discomfort, for it prevented people from leaving their homes. Such a high degree of over-vigilance due to racist experiences can have a detrimental effect on mental health of those experiencing it [34,47,48].

Due to widespread reports of physical and verbal assaults heard in the media and described by family and friends, the Asians and Asian Americans (A/AA) were afraid to leave the house even for routine activities like grocery shopping, fearing that they might face direct discrimination. The participants outside of Asia have reported being afraid about their spouses, friends, or extended family members who are A/AA because of increasing anti-Asian racism. Moreover, they have described strong affective reactions to themselves, family members and those from their social circles [34].

A qualitative study conducted by Zhid Shang and colleagues has analysed experiences related to COVID-19, discrimination, especially racial aggression experienced by Asian health care workers [49]. During the pandemic, health care workers are exposed to additional psychological burdens [50]; 19.6% of American physicians and 8.4% of U.S. nurses are of Asian descent [51]. Asian health care workers have been shown to observe a relative increase in racially motivated aggression, in addition to threats of physical and sexual violence or actual physical assaults attributed to COVID-19. An additional source of frustration is associated with poor responses of organisations dealing with Asian affairs or the widespread use of terms such as "Chinese virus" [49]. The study conducted by Brandon W Yan et al. has shown the examples of racial discrimination against Asians [52]. Asian Americans were not included in various research projects. For instance, the National Academy of Sciences, Medicine, and Engineering excluded Asian-Americans from the list of groups experiencing disproportionate COVID-19 impact. Additionally, Asian-Americans were not mentioned in the "Framework for Equitable Allocation of COVID-19 Vaccine" [53]. The authors have stressed that errors stemming from the myth of the "model minority" might contribute to high mortality rates among Asian-Americans. The myth that Asian Americans cope better with COVID-19 pandemic than other minorities may lead to their exclusion from access to resources, resulting in no or insufficient data on this population [52]. Although the vaccination rates among American Asians are comparable to those among non-Hispanic Whites, the issue of difficult access to vaccines of Asian Americans should not be overlooked. Such vaccination rates may result from a high percentage of Asian health care workers who were the first to be vaccinated. However, the poor and the elderly who do not have easy access to vaccination should be considered [54-56].

Social media are now one of the main sources of information contributing to the spread of discriminatory attitudes or prejudices against various minority groups [57]. A cross-sectional online survey study conducted by Nan Yu et al. has defined the role of social media in the phenomenon of racism against Asians and Asian Americans. Approximately 14% of respondents reported being "very often", "often" or "sometimes" harassed or threatened. Moreover, the common use of social media as a source of information about COVID-19 was found to be positively correlated with daily experiences and fears of being discriminated in the future. Younger age and longer stay in the United States was also associated with greater concerns about experiencing discrimination [58]. In addition, one questionnaire study conducted in the United States has revealed that using social media to read/publish information related to racism was negatively correlated with well-being of Asian Americans and was associated with deeper depression. The link between the use of social media and depression was modified by concerns about discrimination; the use of social media was associated with deeper depression among those who were less concerned about discrimination [59]. Tweets analysed in the

Akash Dutt Dubey study have demonstrated that the majority of tweets containing the phrases "ChineseVirus", "WuhanVirus" or "ChineseVirusCorona" expressed negative emotions of fear, sadness, anger and disgust. Such a content contributes to racial discrimination against Asians in the era of COVID-19 [60]. Another study analysing 3.4 million tweets has revealed that a significant increase in anti-Asian sentiments was observed after the emergence of COVID-19 in the United States and after using the term "Chinese virus" by public figures. Importantly, in addition to negative tweets, there were also those with anti-racist content that condemned negative attitudes towards the Asian community [33].

Experiencing discrimination by Asian Americans during the COVID-19 pandemic contributes to increased feelings of fear and mental impairments during and after the COVID-19 pandemic. The data available in literature show that even before the COVID-19 era, this community has been less likely to use mental health services, which may be associated with a sense of pre-existing stigma [31,61]. Additionally, a survey of Asian ethnic groups in the United States carried out in 2020 has disclosed that discrimination experienced by these groups was positively correlated with symptoms of depression [59,62,63]. Furthermore, discrimination negatively affects the physical health of Asian Americans, although there is fewer solid data on this issue. To date, it has been concluded that discrimination exacerbates various chronic conditions, including heart diseases, respiratory diseases and pain, among Chinese, Vietnamese and Filipino Americans [64].

BLACKS AND HISPANICS

Racism is one of the reasons for a disproportionate large impact of COVID-19 on Black and Hispanic minorities. One of the few options available to combat the spread of the COVID-19 virus is social isolation. This may seem to be the most moral and responsible option for many people; for racially marginalised populations, however, it may require greater sacrifice and lead to unintended consequences [65]. Black essential workers are unable to isolate themselves. For economic reasons, they are deprived of their civil rights, which affects the diversified access to high-quality health care services [66]. The state-level studies conducted between 2004 and 2015 have demonstrated that Whites' racial bias is associated with income inequality between Black and White individuals [67,68]. The factors contributing to increased COVID-19 incidence rates in the Black population include distrust in the media, police racism, medical mistreatment [69]. Black and Hispanic adults mostly work in high-contact sectors, such as food, retail, service, transportation, and health services, which could not involve remote working and isolation despite the COVID-19 outbreak. Such jobs are associated with higher exposure to the virus [70,71]. Social distancing and remote working are infeasible for many people. In the United Kingdom, almost 1/3 of Black Africans and 1/4 of Black Caribbean have been identified as essential workers [72] and thus at a higher risk of exposure to COVID-19, as compared to Whites, who are more likely to be able to work from home [68,73,74]. The study by N. Johnson draws attention to the above issue describing the situation of a White and Black worker and a White and a Black student. The decision of White workers to switch to remote work did not carry any concern about being seen as inefficient and lazy. This is not the case for Black workers fearing to be accused of adopting such an attitude as a stereotypical feature of Black people [65].

Black people working in low-income jobs and many individuals working in the informal sector do not have access to paid leave and cannot stay at home in the case of illness or contact with an infected person [70,75]. In many cases, they are not entitled to health benefits. According to literature data, older ethnic minorities are less likely to have health insurance provided by their employers [70]. Many African Americans with high incomes and health insurance have still received poorer health care services due to implicit biases of health care providers [9,76].

The health of Black and Hispanic individuals can be significantly affected by their living environment. The neighbourhoods they inhabit are more exposed to harmful environmental factors, which is associated with a dense population, unfavourable social situations of residents, and a higher crime rate [77]. Moreover, many Black people live in crowded, low-quality, and multi-generational houses, which limits social distancing [78]. Older Black and Hispanic adults are more exposed to an unhealthy environment, which is likely to have adverse effects on COVID-19-associated morbidity and mortality rates [70]. Although Black or Hispanic people are less likely to live in long-term care facilities than Whites, they are gathered in less well-off areas [79], which favours higher incidences of COVID-19 infections, as compared to the areas inhabited by about 95% of Caucasians [80]. The link between direct care for COVID-19 patients, precarious housing and overload by household chores increases both the likelihood of spreading the infection in the household and the disease itself [81].

Individuals with chronic medical conditions (e.g. diabetes, hypertension, asthma, respiratory diseases) are generally at an increased risk of being hospitalised for COVID-19. However, incidences of such conditions are much higher among Black people, as compared to Whites. For instance, Black Americans are 60 % more likely to be diagnosed with diabetes than White Americans [70,71,75,82,83]. In a questionnaire study conducted in the United States, which encompassed 225 physicians, 24% of respondents stated that caring for Black patients was more difficult during COVID-19 while 28% reported facing more obstacles in treating asthma in a Black patient [17]. The disproportionate risk of morbidity and mortality within racial and ethnic minorities is the

result of centuries of structural inequalities that increase the risk of chronic diseases by limiting the opportunity to lead healthy lives [8].

A lack of trust in healthcare services in Black American and Hispanic minorities may lead to reduced enrolment to COVID-19 testing and receiving appropriate medical care. According to the available literature data, the above minorities also report greater fear of taking the COVID-19 vaccine [84,85]. The problem with trust in health care services is associated with the history of medical experiments and mistreatment of African Americans in the United States [86]. A study by Ash, Berkley-Patton and co-workers has revealed that trust in health care institutions, as well as in government, employers, and schools can be affected by financial problems caused by the outbreak and still ongoing COVID-19 pandemic [87]. An American county-level study conducted in 2020 has found that stronger anti-black attitudes among non-Hispanic individuals are associated with higher overall COVID-19 mortality and morbidity rates, higher morbidity rates among White and Black people, and higher differences between White and Black incidence rates after accounting for other predictors [68]. According to the Centres for Disease Control and Prevention (CDC), even though Black Americans make up only 13% of the American population, they account for 26% of COVID-19 cases, 31% of COVID-19-related hospitalizations, and 23% of COVID-19-related deaths [69, 88-90]. The largest discrepancies were found in the Midwest, where Black Americans accounted for 30-40% of COVID-19 mortality in Kansas, Missouri, Michigan and Illinois. In Wisconsin, Black Americans make up only 6% of the population, yet represented more than 36% of COVID deaths in the state [89]. The data collected by the APM Research Lab in 2020 have demonstrated that Black American mortality is more than twice higher than that in all other races [90-92]. After adjusting for age, the risk of dying of COVID-19 is ten times higher for African Americans than for Whites [92]. Based on estimates of May 27, 2020, if the rate of dying of COVID-19 among Black Americans was the same as among Whites, about 13,000 Black Americans would still be alive [78,93].

Due to disparities in the impact of COVID-19 on Black individuals, many people have lost their family members and/or community members and have not had full access to support systems due to social distancing [78]. Actions inseparably connected with institutional racism, such as housing segregation, have long-term adverse effects on the population health; due to housing segregation, people of colour find themselves in neighbourhoods that lack social investment, which leads to pooper access to high-quality healthcare services and education, healthy food, well-paid jobs, safe housing, as well as safe physical and social environments [68, 94,95].

FAMILIES WITH CHILDREN

Families or communities experiencing racism for many generations have been permanently and reprehensibly affected at many socio-economic levels. The long-term psychological and traumatic effects of COVID-19 have not yet been observed. It is believed that social isolation, fear and sadness resulting from the pandemic are likely to affect children, especially those living in poverty, who can only be adequately cared for through schools and other social programs that have been closed due to the virus. Some children may have been exposed to higher levels of violence because longer stays at home increase the time spent with a caregiver who can also abuse or neglect children. The COVID-19 issues in a broad sense have deeper effects on children and adolescents of colour, e.g. illness or death of one or both parents/caregivers, unemployment of one or both parents/caregivers due to layoffs, lack or limited home access to WiFi networks or electronic devices for medical consultation or continuing school education [72]. Parents with young children may not have a babysitter during the day due to their status of low-income "essential workers" (e.g., retail, childcare workers, medical assistants, housewives) and are at a higher risk of coronavirus infection [88]. Researchers have stressed that the COVID-19 pandemic is likely to have a significant impact on African American and Hispanic children as they are more frequently affected by the death of the main caregiver or the closest family member, e.g. mother or father, due to an increased mortality rate in communities of colour. Children are affected by trauma associated with the loss of loved ones as well as economic, social and health problems of their caregivers, which can have adverse impact on their health and development [96].

ROMANI

Another group experiencing discrimination is the Romani minority. Isolation of Romani districts to reduce the virus transmission has been reported in Slovakia, Romania and Bulgaria. Such measures taken without COVID-19 testing are racist actions discriminating minorities [97].

About one third of the Romani in Slovakia live in isolated settlements characterised by poverty, overcrowding, limited infrastructure, and poor sanitary conditions. Their health status is worse than that of the majority of the population, and the incidence of infectious diseases is much higher. The Slovak government has been accused of stigmatising the Romani minority due to its decision to separate the entire communities to stop the spread of COVID-19. According to the local groups dealing with Romani rights, isolation of Romani

settlements and sending military doctors to perform COVID-19 tests fuelled stigma and fear in both Romani and non-Romani populations. The government informed that since the first confirmed case of COVID-19 infection in the country, more than 1500 people have returned to Romani settlements from abroad. A week later, 6,000 people who had been confirmed to be positive were locked up in five settlements in the eastern part of the country, while individuals from outside Romani settlements who were COVID-positive had to undergo a 14-day quarantine at home [98]. Moreover, racist and discriminatory statements of politicians plus media messages build a narrative about the Romani being a threat in the era of COVID-19 [99]. Peter Pollak, a Slovak Romani member of the COVID-19 response team, admitted that hostility towards the Romani was visible among individuals living near the affected settlements even before the COVId-19 pandemic; now this hostility has begun to turn into hatred [98].

DISCUSSION

The prevalence of racial prejudices can adversely affect social, economic, mental and physical health [33]; long-term racial and ethnic inequalities rooted in societies reflect a disregard for differences in access to healthcare services and thus the well-being of those who live among us yet are simply less fortunate [13]. Senior members of racial minorities may be exposed to many health problems, especially during the ongoing threat of COVID-19, due to unequal access to healthcare services and their poorer quality [100].

The unreasonable COVID-19 morbidity and mortality rates observed in various racial groups in the United States show that historical racism in health care, housing, employment, and education continues to create the society. Therefore, healthcare professionals have an ethical obligation to pursue health-related policies aimed at remedying past injustices and correcting the current unjust effects associated with racism [101]. Healthcare workers need to focus on those who are at the highest risk of harm - those whose lives are symbolically and often literally at risk of not being able to breathe [102]. One of the branches of medicine that should uphold equal access to medical care is emergency medicine. Emergency physicians should be aware of this problem and follow the "health equity" policy, which means that everyone has equal opportunities to be healthy. The authors have suggested that the socio-economical model of health should be accepted and introduced at different levels, i.e. individual, organisation, community and political levels [103,104]. Considering the lack of trust of Black Americans in health care, no effort should be spared to rebuild lasting trust, not only in times of crisis and epidemic. To achieve this goal, educational programs should be implemented to dispel the doubts of Black individuals about medical experiments and treatment [105]. It has been shown that the problem with trust in health care is likely to be related to loneliness, financial insecurity and limited access to free lunches among African American youth. The solution could be to promote the maintenance of social ties among young people of colour while following appropriate public health guidelines during the COVID-19 epidemic [87]. To protect Black and Hispanic ethnic minorities against the threat of COVID-19, it is essential to provide testing locations in the neighbourhoods inhabited by minorities and all the necessary personal protective equipment to workers considered "necessary" during the epidemic; moreover, decent remuneration for increased risk and appropriate healthcare services should be ensured [70].

It has been noted that COVID-19 can indirectly, negatively affect the development and health of children. Therefore, every effort should be made to ensure paediatric health equality to prevent inequalities resulting from financial, social and health problems of Black and Hispanic families. Children should have access to the healthcare system and medical care services. It seems important to increase funds for food programs, e.g. the Special Supplemental Nutrition Program for Infants and Children, which would provide assistance to children from poorer families who are struggling with even greater problems during the COVID-19 pandemic [96].

According to many researchers, national authorities should address harassment and violence against Asia and offer adequate health and social assistance. Furthermore, the provision of mental health services for Asian communities living in the United States is of importance [31]. The authors of the study among American health care workers of Asian descent have stressed that healthcare organisations should take actions to protect the well-being of this group, enabling their effective work both during and after the COVID-19 pandemic [49]. To date, Asian-Americans are one of the most under-studied racial groups in peer-reviewed literature. COVID-19 has revealed a shortage of data and institutions supporting the health and well-being of Asian Americans [64].

The COVID-19 pandemic has shown that health and politics are highly interdependent; lack of consideration for the needs of discriminated people can lead to disastrous consequences [106]. The available ethical and clinical guidelines for care during the pandemic are largely unfair – they actively discriminate people from ethnic minorities [107]. The government authorities should be sensitised to the existing barriers so that the actions taken could really improve access to adequate health care for people from racial minorities [20].

The tragic events of 2020 (the murders of Geogra, Ahmaud Arbery, and Breonna Taylor) provoked reactions of, inter alia, the health informatics sector. "TechQuity" means "the strategic development and deployment of technology to advance health equality" [108]. The emergence of such a term indicates a growing

role and commitment of information technology in the fight for equality [109]. Studies show the lack of appropriate actions to follow stigmatizing factors (e.g. through hate prevention campaigns, media monitoring) and their consequences. Such measures should not be based exclusively on informative strategies and linguistic control; to be effective means there should be a legal obligation to combat the problem of stigmatisation [26,110]. The impact of social media on the dissemination of discriminatory content that adversely affects the psychological well-being of minority groups should be analysed more meticulously [58].

CONCLUSIONS

The COVID-19 pandemic has had a significant impact on the deepening of discrimination of many racial and ethnic minorities. To date, studies on the extent of this phenomenon have been sparse. Future research should be aimed at identifying the needs and actions that will improve the situation of minority groups. To this end, government and health protection authorities should be involved. Moreover, it is important to educate the society; therefore, mass media, which can mould attitudes of people, should also be involved.

Literature

- 1. Azar, K.M.J.; Shen, Z.; Romanelli, R.J.; et al. Disparities In Outcomes Among COVID-19 Patients In A Large Health Care System In California. Health Aff (Millwood) **2020**, 39(7), 1253-1262.
- 2. Bassett, M.T.; Chen, J.T.; Krieger, N. Correction: Variation in racial/ethnic disparities in COVID-19 mortality by age in the United States: A cross-sectional study. PLoS Med **2021**, 18(2), e1003541.
- 3. Sabatello, M.; Jackson Scroggins, M.; Goto, G.; et al. Structural Racism in the COVID-19 Pandemic: Moving Forward. Am J Bioeth **2021**, 21(3), 56-74.
- 4. Marron, J.M. Structural Racism in the COVID-19 Pandemic: Don't Forget about the Children!. Am J Bioeth 2021, 21(3), 94-97.
- 5. De Rose, C.; Spinola, O.; Buonsenso, D. Time for Inclusion of Racial and Gender Discrimination in Routine Clinical Assessment. J Racial Ethn Health Disparities **2021**, 8(4), 803-808.
- 6. The Lancet. Medicine and medical science: Black lives must matter more. Lancet **2020**, 395(10240), 1813.
- 7. Pettigrew, E. COVID-19: A Mirror to Our Flaws. N C Med J 2021, 82(1), 43-45.
- 8. Corbie-Smith, G.; Wolfe, M.K.; Hoover, S.M.; Dave, G. Centering Equity and Community in the Recovery of the COVID-19 Pandemic. N C Med J **2021**, 82(1), 62-67.
- Hu, S.; Luo, W.; Darzi, A.; et al. Do racial and ethnic disparities in following stay-at-home orders influence COVID-19 health outcomes? A mediation analysis approach. PLoS One. 2021, 16(11):e0259803.
- 10. Almagro, M.; Orane-Hutchinson, A. JUE insight: The determinants of the differential exposure to COVID-19 in New York city and their evolution overtime. J. of Urban Economics **2020**.
- 11. Benitez, J.; Courtemanche, C.; Yelowitz, A. Racial and Ethnic Disparities in COVID-19: Evidence from Six Large Cities. J Econ Race, and Policy **2020**, 3, 243–261.
- Kaufman, J.S.; Dolman, L.; Rushani, D.; Cooper, R.S. The contribution of genomic research to explaining racial disparities in cardiovascular disease: a systematic review. Am J Epidemiol 2015, 181(7), 464-472.
- 13. Adashi, E.Y.; Gruppuso, P.A. The Centers for Medicare and Medicaid Services (CMS) COVID-19 Brief: Unsettling Racial and Ethnic Health Disparities. J Am Board Fam Med **2021**, 34(Suppl), 13-15.
- 14. Centers for Medicare and Medicaid Services. Preliminary Medicare COVID-19 data snapshot. Available online: <u>https://www.cms.gov/research-statistics-data-systems/preliminary-medicare-covid-19-data-snapshot</u> (accessed on 25 September 2020)
- 15. Reopening America: Low-wage workers have suffered badly from COVID-19 so policymakers should focus on equity. Brookings Institution website. Available online: <u>https://www.brookings.edu/research/reopening-america-low-wage-workers-have-suffered-badly-from-covid-19-so-policymakers-should-focus-on-equity/</u>. (accessed on 2 November 2020)
- 16. White A. Historical linkages: epidemic threat, economic risk, and xenophobia. Lancet 2020, 395(10232), 1250-1251.
- 17. Baptist, A.P.; Lowe, D.; Sarsour, N.; et al. Asthma Disparities During the COVID-19 Pandemic: A Survey of Patients and Physicians. J Allergy Clin Immunol Pract **2020**, 8(10), 3371-3377.e1.
- James, P. Engaged Ethics in the Time of COVID: Caring for All or Excluding Some from the Lifeboat?. J Bioeth Inq 2020, 17(4), 489-493.
- 19. How Chicago's vaccine rollout is inhibited by longstanding inequality. Available online: https://www.theguardian.com/us-news/2021/feb/05/chicago-blacks-latinos-vaccine-distribution (accessed on 5 February 2021)

- 20. Reverby, S.M. Racism, disease, and vaccine refusal: People of color are dying for access to COVID-19 vaccines. PLoS Biol **2021**, 19(3), e3001167.
- World Health Organization. When talking about #COVID19, certain words & language may have a negative meaning for people and fuel stigmatizing attituded. Available online: <u>https://twitter.com/WHO/status/1234597035275362309</u> (accessed on 2 March 2020)
- Lawrence K, Sutton S, Kubisch A, et al. Structural Racism and Community Building, Aspen Institute Roundtable on Community Change. Washington, DC: The Aspen Institute; Available online: <u>https://www.aspeninstitute.org/wp-content/uploads/files/content/docs/rcc/aspen_structural_racism2.pdf</u>. (accessed on June 2004])
- Yellow terror in all his glory. Columbus (OH): Origins: Current Events in Historical Perspective. Available online: <u>https://origins.osu.edu/article/image/yellow-terror-all-his-glory (accessed on 8 August 2020)</u>
- 24. Teixeira da Silva, J.A. Stigmatization, Discrimination, Racism, Injustice, and Inequalities in the COVID-19 Era. Int J Health Policy Manag **2020**, 9(11), 484-485.
- 25. Chung, R.Y.; Li, M.M. Anti-Chinese sentiment during the 2019-nCoV outbreak. Lancet 2020, 395(10225), 686-687.
- 26. Viladrich, A. Sinophobic Stigma Going Viral: Addressing the Social Impact of COVID-19 in a Globalized World. Am J Public Health **2021**, 111(5), 876-880.
- 27. Baig, M.Z.; Zafar, Z.; Aziz, A.; Abdullah, U.H. COVID-19; Plague of the 21st Century; Situation Update. Asian J of Res in Infectious Dis **2020**, 3(4), 11-21.
- 28. Coronavirus: Trump stands by China lab origin theory for virus. Available online: <u>www.bbc.co.uk/news/world-us-canada-52496098</u> (accessed on 8 August 2020)
- 29. WHO issues best practices for naming new human infectious diseases. Available online: <u>https://www.who.int/news/item/08-05-2015-who-issues-best-practices-for-naming-new-human-infectious-diseases</u> (accessed on 8 August 2020)
- Campbell, A.F.; Ellerbeck, A. Federal agencies are doing little about the rise in anti-Asian hate. The Center for Public Integrity. Available online: <u>https://publicintegrity.org/health/coronavirus-and-inequality/</u> (accessed on 16 April 2020)
- Misra, S.; Le, P.D.; Goldmann, E.; Yang, L.H. Psychological impact of anti-Asian stigma due to the COVID-19 pandemic: A call for research, practice, and policy responses. Psychol Trauma 2020, 12(5), 461-464.
- 32. Croucher, S.; Nguyen, T.; Rahmani, D. Prejudice toward Asian Americans in the Covid-19 pandemic: The effects of social media use in the United States. Front. Commun **2020**, 5, 39.
- 33. Nguyen, T.T.; Criss, S.; Dwivedi, P.; et al. Exploring U.S. Shifts in Anti-Asian Sentiment with the Emergence of COVID-19. Int J Environ Res Public Health **2020**, 17(19), 7032.
- 34. Hahm, H.C.; Xavier Hall, C.D.; Garcia, K.T.; et al. Experiences of COVID-19-related anti-Asian discrimination and affective reactions in a multiple race sample of U.S. young adults. BMC Public Health **2021**, 21(1), 1563.
- 35. Chen, Y.; Wang, Z.; Dong, W.; et al. The pathways from perceived discrimination to self-rated health among the Chinese diaspora during the COVID-19 pandemic: investigation of the roles of depression, anxiety, and social support. Int J Equity Health **2021**, 20(1), 192.
- 36. Sylvia Chou, W.Y.; Gaysynsky, A. Racism and Xenophobia in a Pandemic: Interactions of Online and Offline Worlds. Am J Public Health **2021**, 111(5), 773-775.
- Darling-Hammond, S.; Michaels, E.K.; Allen, A.M.; et al. After "The China Virus" Went Viral: Racially Charged Coronavirus Coverage and Trends in Bias Against Asian Americans. Health Educ Behav 2020, 47(6), 870-879.
- 38. Hu, J.R.; Wang, M.; Lu, F. COVID-19 and Asian American Pacific Islanders. J Gen Intern Med **2020**, 35(9), 2763-2764.
- 39. Jeung, R. Incidents of Coronavirus Discrimination . Asian Pacific Policy and Planning Council. Available online: <u>http://www.asianpacificpolicyandplanningcouncil.org/wp-</u> content/uploads/A3PCON Public Weekly Report 3.pdf. (accessed on 11 April 2020)
- 40. Ma, K.P.K; Bacong, A.M.; Kwon, S.C.; Yi, S.S.; Đoàn, L.N. The Impact of Structural Inequities on Older Asian Americans During COVID-19. Front Public Health **2021**, 9, 690014.
- 41. 2020–2021 National Report. Stop AAPI Hate. Available online: <u>https://stopaapihate.org/reports/</u> (accessed on 24 March 2021)
- 42. Dhanani, L.Y.; Franz, B. Unexpected public health consequences of the COVID-19 pandemic: a national survey examining anti-Asian attitudes in the USA. Int J Public Health **2020**, 65(6), 747-754.
- 43. Tsai, J.Y.; Phua, J.; Pan, S.; Yang, C.C. Intergroup Contact, COVID-19 News Consumption, and the Moderating Role of Digital Media Trust on Prejudice Toward Asians in the United States: Cross-Sectional Study. J Med Internet Res 2020, 22(9), e22767.

- 44. Many Black and Asian Americans Say They Have Experienced Discrimination Amid the COVID-19 Outbreak. Available online: <u>https://www.pewsocialtrends.org/2020/07/01/many-black-and-asian-americans-say-they-have-experienced-discrimination-amid-the-covid-19-outbreak/</u> (accessed on 1 July 2020)
- 45. Asian American Federation . Hidden in Plain Sight: Asian Poverty in New York City. New York, NY . Available online: <u>https://www.aafederation.org/doc/AAF_poverty_2018.pdf</u> (accessed on 27 May 2021)
- 46. Cavalhieri, K.E. Economic insecurity as a risk factor during the COVID-19 pandemic. J Health Disparities Res Pract **2021**, 14, 79–93.
- 47. Williams, D.R. Stress and the Mental Health of Populations of Color: Advancing Our Understanding of Race-related Stressors. J Health Soc Behav **2018**, 59(4), 466-485.
- Okazaki, S. Impact of Racism on Ethnic Minority Mental Health. Perspect Psychol Sci 2009, 4(1), 103-7.
- Shang, Z.; Kim, J.Y.; Cheng, S.O. Discrimination experienced by Asian Canadian and Asian American health care workers during the COVID-19 pandemic: a qualitative study. CMAJ Open 2021, 9(4), E998-E1004.
- 50. Greenberg, N.; Docherty, M.; Gnanapragasam, S.; Wessely, S. Managing mental health challenges faced by healthcare workers during covid-19 pandemic. BMJ **2020**, 368.
- 51. US Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. Sex, race, and ethnic diversity of U.S. health occupations (2011– 2015). Available online: <u>https://bhw.hrsa.gov/sites/default/files/bureau-health-workforce/dataresearch/diversity-us-health-occupations.pdf</u> (accessed on August 2017)
- 52. Yan, B.W.; Hwang, A.L.; Ng, F.; Chu, J.N.; Tsoh, J.Y.; Nguyen, T.T. Death Toll of COVID-19 on Asian Americans: Disparities Revealed. J Gen Intern Med **2021**, 36(11), 3545-3549.
- 53. Kahn B, Brown L, Foege W, et al. National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Board on Health Sciences Policy; Committee on Equitable Allocation of Vaccine for the Novel Coronavirus;Framework for Equitable Allocation of COVID-19 Vaccine. Washington (DC): National Academies Press (US); 2020.
- 54. COVID Data Tracker. Centers for Disease Control and Prevention. Available online: https://covid.cdc.gov/covid-data-tracker (accessed on 26 May 2021)
- 55. AAPIs Rising to Fight Dual Pandemics Covid-19 and Racism. One Nation Commission. Available online: <u>https://www.onenationaapi.com/commission-report-ii</u> (accessed on 23 December 2020)
- 56. Not all Asian Americans are being vaccinated at high rates. A Chinatown clinic shows why. Los Angeles Times. Available online: <u>https://www.latimes.com/california/story/2021-04-21/chinatown-vaccine-clinic-asian-american-seniors (accessed on 26 April 2021)</u>
- 57. Davidson, T.; Farquhar, L. Prejudice and social media: Attitudes toward illegal immigrants, refugees, and transgender people. In: Farris D, Compton D, Herrera A, editors. Gender, Sexuality and Race in the Digital Age. Cham: Springer **2020**, 151-167.
- 58. Yu, N.; Pan, S.; Yang, C.C.; Tsai, J.Y. Exploring the Role of Media Sources on COVID-19-Related Discrimination Experiences and Concerns Among Asian People in the United States: Cross-Sectional Survey Study. J Med Internet Res **2020**, 22(11), e21684.
- Pan, S.; Yang, C.C.; Tsai, J.Y.; Dong, C. Experience of and Worry About Discrimination, Social Media Use, and Depression Among Asians in the United States During the COVID-19 Pandemic: Cross-sectional Survey Study. J Med Internet Res 2021, 23(9), e29024.
- 60. Dubey, A.D. The Resurgence of Cyber Racism During the COVID-19 Pandemic and its Aftereffects: Analysis of Sentiments and Emotions in Tweets. JMIR Public Health Surveill **2020**, 6(4), e19833.
- 61. Ihara, E.S.; Chae, D.H.; Cummings, J.R.; Lee, S. Correlates of mental health service use and type among Asian Americans. Adm Policy Ment Health **2014**, 41(4), 543-551.
- 62. Fisher, C.B.; Tao, X.; Liu, T.; Giorgi, S.; Curtis, B. COVID-Related Victimization, Racial Bias and Employment and Housing Disruption Increase Mental Health Risk Among U.S. Asian, Black and Latinx Adults. Front Public Health **2021**, 9, 772236.
- 63. Kroenke, K.; Spitzer, R.L.; Williams, J.B.; Löwe, B. The Patient Health Questionnaire Somatic, Anxiety, and Depressive Symptom Scales: a systematic review. Gen Hosp Psychiatry **2010**, 32(4), 345-59.
- 64. Chen, J.A.; Zhang, E.; Liu, C.H. Potential Impact of COVID-19-Related Racial Discrimination on the Health of Asian Americans. Am J Public Health **2020**, 110(11), 1624-1627.
- 65. Johnson, N. When Blackness Does Not Fade After a Pandemic: An Appeal to Acknowledge the Unequal Burden of Social Isolation. J Urban Health **2020**, 97(3), 329-331.
- 66. Koschmann, K.S.; Jeffers, N.K.; Heidari, O. "I can't breathe": A call for antiracist nursing practice. Nurs Outlook **2020**, 68(5); 539-541.

- Connor, P.; Sarafidis, V.; Zyphur, M.J.; Keltner, D.; Chen, S. Income Inequality and White-on-Black Racial Bias in the United States: Evidence From Project Implicit and Google Trends. Psychol Sci 2019, 30(2), 205-222.
- Thomas, M.D.; Michaels, E.K.; Darling-Hammond, S.; Nguyen, T.T.; Glymour, M.M.; Vittinghoff, E. Whites' County-Level Racial Bias, COVID-19 Rates, and Racial Inequities in the United States. Int J Environ Res Public Health 2020, 17(22), 8695.
- 69. Laurencin, C.T.; Walker, J.M. A Pandemic on a Pandemic: Racism and COVID-19 in Blacks. Cell Syst 2020, 11(1), 9-10.
- 70. Garcia, M.A.; Homan, P.A.; García, C.; Brown, T.H. The Color of COVID-19: Structural Racism and the Disproportionate Impact of the Pandemic on Older Black and Latinx Adults. J Gerontol B Psychol Sci Soc Sci **2021**, 76(3), e75-e80.
- Azria, E.; Sauvegrain, P.; Blanc, J.; et al. Racisme systémique et inégalités de santé, une urgence sanitaire et sociétale révélée par la pandémie COVID-19 [Systemic racism and health inequalities, a sanitary emergency revealed by the COVID-19 pandemic]. Gynecol Obstet Fertil Senol 2020, 48(12), 847-849.
- 72. Farquharson, W.H.; Thornton, C.J. Debate: Exposing the most serious infirmity racism's impact on health in the era of COVID-19. Child Adolesc Ment Health **2020**, 25(3), 182-183.
- 73. Metropolitan Transit Authority MTA-Wide Workforce. Available online: <u>https://www.documentcloud.org/documents/6827449-Screen-Shot-2020.html</u> (accessed on 1 June 2020).
- 74. US Department of Labor Bureau of Labor Statistics Labor Force Characteristics by Race and Ethnicity. Available online: <u>https://www.bls.gov/opub/reports/race-and-ethnicity/2018/home.htm</u> (accessed on 1 June 2020)
- 75. Leitch, S.; Corbin, J.H.; Boston-Fisher, N.; et al. Black Lives Matter in health promotion: moving from unspoken to outspoken. Health Promot Int **2021**, 36(4), 1160-1169.
- 76. Devakumar, D.; Shannon, G.; Bhopal, S.S.; Abubakar, I. Racism and discrimination in COVID-19 responses. Lancet **2020**; 395(10231), 1194.
- 77. Sewell, A.A. The racism-race reification process: A mesolevel political economic framework for understanding racial health disparities. *Sociology of Race and Ethnicity* **2016**, 2(4), 402–432.
- 78. Crews, D.C.; Purnell, T.S. COVID-19, Racism, and Racial Disparities in Kidney Disease: Galvanizing the Kidney Community Response. J Am Soc Nephrol **2020**, 31(8), 1-3.
- Howard, D.L.; Sloane, P.D; Zimmerman, S.; Eckert, J.K.; Walsh, J.F.; Buie, V.C.; Taylor, P.J.; Koch, G.G. Distribution of African Americans in residential care/assisted living and nursing homes: More evidence of racial disparity? Am J Public Health 2002, 92(8), 1272–1277.
- The striking racial divide in how Covid-19 has hit nursing homes. The New York Times. Available online: <u>https://www.nytimes.com/article/coronavirus-nursing-homes-racial-disparity.html</u> (assessed on 21 May 2020)
- Oliveira, R.G.; Cunha, A.P.D.; Gadelha, A.G.D.S.; Carpio, C.G.; Oliveira, R.B.; Corrêa, R.M. Racial inequalities and death on the horizon: COVID-19 and structural racism. Cad Saude Publica 2020, 36(9), e00150120.
- Williamson, E.J.; Walker, A.J.; Bhaskaran, K.; et al. Factors associated with COVID-19-related death using OpenSAFELY. Nature 2020, 584(7821), 430-436.
- 83. Zheng, Z.; Peng, F.; Xu, B.; et al. Risk factors of critical & mortal COVID-19 cases: A systematic literature review and meta-analysis. J Infect **2020**, 81(2), e16-e25.
- 84. Fisher, K.A.; Bloomstone, S.J.; Walder, J.; Crawford, S.; Fouayzi, H.; Mazor, K.M. Attitudes Toward a Potential SARS-CoV-2 Vaccine : A Survey of U.S. Adults. Ann Intern Med **2020**, 173(12), 964-973.
- 85. Mistrust, disinformation among Latinos on Covid vaccine worries Hispanic doctors. Available online: <u>https://www.nbcnews.com/news/latino/mistrust-disinformation-among-latinos-covid-vaccine-worries-hispanic-doctors-n1251636</u>. (accessed on 20 December 2020)
- 86. Kennedy, B.R.; Mathis, C.C.; Woods, A.K. African Americans and their distrust of the health care system: healthcare for diverse populations. J Cult Divers **2007**, 14(2), 56-60
- 87. Ash, M.J.; Berkley-Patton, J.; Christensen, K.; et al. Predictors of medical mistrust among urban youth of color during the COVID-19 pandemic. Transl Behav Med **2021**, 11(8), 1626-1634.
- 88. Poteat, T.; Millett, G.A.; Nelson, L.E.; Beyrer, C. Understanding COVID-19 risks and vulnerabilities among black communities in America: the lethal force of syndemics. Ann Epidemiol 2020, 47, 1-3.
- Sederstrom, N.O.; Wiggleton-Little, J. Acknowledging the Burdens of 'Blackness'. HEC Forum 2021, 33(1-2), 19-33.
- Johnson, J.H., Jr.; Bonds, J.M.; Parnell, A.M.; Bright, C.M. Coronavirus Vaccine Distribution: Moving to a Race Conscious Approach for a Racially Disparate Problem. J Racial Ethn Health Disparities 2021, 8(4), 799-802.

- 91. Wood, D. As pandemic deaths add up, racial disparities persist—and in some case worsen, NPR. Available online: <u>https://www.npr.org/sections/health-shots/2020/09/23/914427907/as-pandemic-deaths-add-up-racial-disparities-persist-and-in-some-cases-worsen</u>. (accessed on 23 September 2020)
- 92. Gravlee, C.C. Systemic racism, chronic health inequities, and COVID-19: A syndemic in the making? Am J Hum Biol **2020**, 32(5), e23482.
- American Public Media Research Lab Staff: The color of coronavirus: COVID-19 deaths by race and ethnicity in the U.S. Available online: <u>https://www.apmresearchlab.org/covid/deaths-by-race</u>. (accessed on 7 June 2020)
- 94. Cooper, L.A.; Crews, D.C. COVID-19, racism, and the pursuit of health care and research worthy of trust. J Clin Invest **2020**, 130(10), 5033-5035.
- 95. Bailey, Z.D.; Krieger, N.; Agénor, M.; Graves, J.; Linos, N.; Bassett, M.T. Structural racism and health inequities in the USA: evidence and interventions. Lancet **2017**, 389(10077), 1453-1463.
- Fraiman, Y.S.; Litt, J.S.; Davis, J.M.; Pursley, D.M. Pediatric Policy Council. Racial and ethnic disparities in adult COVID-19 and the future impact on child health. Pediatr Res 2021, 89(5), 1052-1054.
- 97. Bulgaria's Roma Say Some Coronavirus Measures Are Discriminatory, The New York Times. Available online: <u>https://www.nytimes.com/reuters/2020/03/24/world/europe/24reuters-health-coronavirus-bulgaria-roma.html</u> (accessed on 24 March 2020)
- 98. Holt, E. COVID-19 lockdown of Roma settlements in Slovakia. Lancet Infect Dis 2020, 20(6), 659.
- 99. Matache, M.; Bhabha, J. Anti-Roma Racism is Spiraling during COVID-19 Pandemic. Health Hum Rights 2020, 22(1), 379-382
- 100.Laster Pirtle, W.N. Racial capitalism: A fundamental cause of novel coronavirus (COVID-19) pandemic inequities in the United States. Health Education & Behav 2020, 47(4), 504–508.
- 101.Soled, D.R.; Chatterjee, A.; Olveczky, D.; Lindo, E.G. The Case for Health Reparations. Front Public Health 2021, 9, 664783.
- 102.Espina, C.R.; Narruhn, R.A. "I Can't Breathe": Biopower in the Time of COVID-19: An Exploration of How Biopower Manifests in the Dual Pandemics of COVID and Racism. ANS Adv Nurs Sci 2021, 44(3), 183-194.
- 103.Marron, J.M.; Charlot, M.; Gaddy, J.; Rosenberg, A.R. The Ethical Imperative of Equity in Oncology: Lessons Learned From 2020 and a Path Forward. Am Soc Clin Oncol Educ Book **2021**, 41, e13-e19.
- 104.Franks, N.M.; Gipson, K.; et al. The Time Is Now: Racism and the Responsibility of Emergency Medicine to Be Antiracist, Annals of Emerg Medicine 2021, 78(5), 577-586.
- 105.Egede, L.E.; Walker, R.J. Structural Racism, Social Risk Factors, and Covid-19 A Dangerous Convergence for Black Americans. N Engl J Med **2020**, 383(12), e77.
- 106.Scott, J.; Johnson, R.; Ibemere, S. Addressing health inequities re-illuminated by the COVID-19 pandemic: How can nursing respond?. Nurs Forum **2021**, 56(1), 217-221.
- 107.Paton, A. Fairness, Ethnicity, and COVID-19 Ethics : A Discussion of How the Focus on Fairness in Ethical Guidance During the Pandemic Discriminates Against People From Ethnic Minority Backgrounds. J Bioeth Inq 2020, 17(4), 595-600.
- 108. Rhee, K.; Dankwa-Mullan; et al. What is TechQuity? J Health Care Poor Underserved 2021, 32(2), xiii-xviii.
- 109.Clark, C.R.; Akdas, Y.; Wilkins, C.H.; et al. TechQuity is an imperative for health and technology business: Let's work together to achieve it. J Am Med Inform Assoc 2021, 28(9), 2013-2016.
- 110.Le, T.K.; Cha, L.; Han, H.R.; Tseng, W. Anti-Asian Xenophobia and Asian American COVID-19 Disparities. Am J Public Health 2020, 110(9), 1371-1373.