





Irregular migrants' experiences of health disparities while living in informal settlements during the COVID-19 pandemic

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Abstract

Aims: The objective of this study was to describe and understand irregular migrants' (IMs') experiences of health disparities while living in informal settlements (ISs) during the COVID-19 pandemic.

Design: Qualitative descriptive study.

Methods: Thirty-four IMs originating from different African countries living in ISs took part in this study. Data were collected between January and March 2022 through three focus groups and 17 in-depth interviews. Thematic analysis was used to analyse qualitative data with ATLAS.ti computer software.

Results: Three main themes emerged: (1) Extreme vulnerability: ISs and abuse; (2) Inequality in health treatment has increased during COVID-19; and (3) The impact of COVID-19 on the health of IMs: help from non-governmental organizations and nurses.

Conclusion: Irregular migrants are at a higher risk of exposure to COVID-19 due to their precarious living conditions, administrative situation and access to the health system. It is recommended that specific programmes be strengthened to improve health care for this population.

Impact: What problem did the study address? This study examines IMs' experiences of health disparities during the COVID-19 pandemic.

What were the main findings? IMs are at higher risk of exposure to COVID-19 due to social, health, housing and work inequalities. Community health nurses alongside non-governmental organizations have facilitated the implementation of measures to protect this population against COVID-19.

Where and on whom will the research have an impact? With the aim of improving care for IMs, strategies have been suggested for health institutions to address problems relating to accessing the health system, and to promote networking between non-governmental organizations and community health nurses.

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KEYWORDS

COVID-19, homeless people, irregular migrants, nurses, public health, qualitative research, settlements, vaccines

1 | INTRODUCTION

The movement of migrants and asylum seekers is considered a political, social and public health challenge worldwide. Spain, along with Greece and Italy, receives thousands of irregular migrants (IMs, Fotaki, 2019). The term 'irregular migrant' refers to 'a person who, owing to unauthorized entry, breach of a condition of entry, or the expiry of his or her visa, lacks legal status in a transit or host country. The definition covers *inter alia* those persons who have entered a transit or host country lawfully but have stayed for a longer period than authorized or subsequently taken up unauthorized employment' (International Organization for Migration [IOM], 2011). Their legal situation has repercussions on their access to regular work, decent housing and their state of health. In Spain, according to data from the National Institute of Statistics (2021), it is estimated that 19.7% of the population lives in precarious housing and informal settlements (ISs), which in the case of IMs reaches more than 60% (Allande-Cussó et al., 2022). In these settlements, there is a lack of hygiene, access to health services and protective measures against diseases such as COVID-19 (García et al., 2021). IMs are, therefore, a particularly vulnerable population during the COVID-19 pandemic. The World Health Organization (WHO, 2020) highlighted the importance of paying special attention to IMs and asylum seekers during the pandemic, by reducing barriers to accessing the health system, and promoting an effective vaccination campaign. COVID-19 has transformed the way health services work and has improved cooperation between the health sector and NGOs, working together to improve IMs' access to health services. Nurses play a key role in attending to and meeting the needs of IMs (Granero-Molina et al., 2022). Using the model of social determinants for health (SDH) defined by the WHO (2022) to understand IMs' experiences of health disparities while living in ISs during the COVID-19 pandemic, improvements could be made to this population's access to the health system.

2 | BACKGROUND

The movements of international migrants that characterize the globalized world have increased in recent decades, exceeding 280 million people worldwide in 2020 (IOM, 2020). The European Union (EU) receives a third of the global migrant population, many of whom are IMs, which has posed a political, social and health challenge. IMs are not authorized to enter or remain in the host country, as they do not have a residence permit or refugee status (Fotaki, 2019); they are fleeing poverty, wars, generalized violence and persecution (United Nations High Commission for Refugees [UNHCR], 2019). National immigration statistics provide annual data on the number of IMs entering the country (Ministry of Inclusion, Social Security

and Migration [MISSM], 2022). According to data from the Ministry of Interior (2021), more than 41,900 IMs arrived in Spain by sea and land in the year 2021–2022, of whom the majority were from Algeria (39.5%), followed by Morocco (20.3%), Mali (12.6%), Guinea (7.6%), Ivory Coast (6.6%) and others (13.4%) (Jiménez & Ruiz, 2021). IMs are at higher risk of suffering from health problems due to the living conditions during the migration process (Granero-Molina et al., 2022) and the obstacles when settling in the new country, such as difficulties in accessing health systems (García et al., 2021).

The model of social determinants of health (SDH) defined by the WHO differentiates three determinants; the individual or proximal determinant, related to individual risk factors and influenced by community and social networks; and the structural determinant, defined by the person's social status (WHO, 2022). The intermediate determinant is linked to the vulnerabilities of population groups in terms of their individual lifestyles. For example, housing conditions, hygiene, water, food, work and access to basic services such as health services and social or family conditions, all of which are fundamental elements of a person's life (Hernández et al., 2017). Their status as IMs makes it difficult to find employment and access legal work. Their lack of financial means has an impact on accessing decent housing and the health system; they are faced with difficulties in registering and obtaining a health card in a health system with unequal provisions. This discourages IMs from accessing health services out of fear of being turned away or unable to pay for them (García et al., 2021; Oliva-Arocas et al., 2022). ISs consist of vulnerable migrant population groups; many IMs live in abandoned farmhouses or shacks they built themselves, far from urban centres. The ISs can be made up of a very heterogeneous group in terms of number (two or three people up to 200) and profiles (families, single men or women, and mixed) (Jiménez & Ruiz, 2021). They are characterized by a lack of basic services such as drinking water, electricity, sanitation or garbage collection. The overcrowding and unhealthy conditions that characterize ISs show some of the deficiencies that affect the health of IMs (Allande-Cussó et al., 2022; García et al., 2021).

Irregular migrants are a vulnerable population. Environmental conditions can be a threat to public health and negatively impact the physical and mental health of this population (Oliva-Arocas et al., 2022). IMs experience violence, social marginalization, hunger, low-income jobs and a high prevalence of diseases such as diabetes or cardiac disorders that promote the development of infectious diseases such as SARs-CoV-2 (COVID-19) (García-Pazo et al., 2022). COVID-19 has caused an unprecedented crisis, killing millions of people around the world. It causes a respiratory syndrome of variable intensity, whose most prevalent symptoms are fever, cough and respiratory distress (Chutiyami et al., 2022). The COVID-19 pandemic has increased the vulnerability of IMs who catch the virus

when living in ISs. Responses to prevent rapid transmission of the virus include handwashing, use of masks, social distancing (McNeely et al., 2020), quarantine and vaccination of the entire population (Thomas et al., 2021). However, the lack of space and overcrowding in ISs make physical distancing and self-quarantine impossible, which can lead to the rapid spread of COVID-19 (Allande-Cussó et al., 2022; McNeely et al., 2020). Furthermore, there is a lack of commitment to protect the most vulnerable populations such as IMs who, due to their legal status, have limited access to health care (Thomas et al., 2021). IMs face exclusion from digital health resources (Bastick & Mallet-Garcia, 2022), a lack of information and awareness of their health rights, barriers to accessing COVID-19 vaccination services (Bartovic et al., 2021) and difficulty in complying with prevention measures during the pandemic (Allande-Cussó et al., 2022). Patient-centred care includes proper information and assessment, which builds IMs' trust in healthcare providers (Sevinç et al., 2016). Health services and healthcare providers have changed the way they work as a result of COVID-19 (Thomas et al., 2021); but not all of them promote an equitable approach, investing in benefits and services to ensure care for vulnerable people such as IMs living in ISs, to curb the COVID-19 pandemic (Sevinç et al., 2016). Nurses can provide care and useful information to IMs (Granero-Molina et al., 2022). Nurses provide humanized health care, ensuring culturally appropriate care (Sevinç et al., 2016). Due to their proximity to ISs, community health nurses play an important role in reducing discrimination, promoting effective measures to address health inequalities, and protecting IMs during pandemics (Corburn et al., 2020; Thomas et al., 2021). Although there are studies on the impact of COVID-19 on this population (Allande-Cussó et al., 2022), access to vaccination for COVID-19 (Thomas et al., 2021), living and health conditions in ISs (García et al., 2021) or on the role of nursing in migrants' health (Granero-Molina et al., 2022), few studies have analysed IMs' experiences of health disparities while living in ISs during the COVID-19 pandemic. The WHO's (2022) SDH model distinguishes three determinants: individual or proximal, intermediate and structural, allowing us to study the health inequalities faced by IMs living in ISs, with the aim of improving equitable access to health care, and promoting effective vaccination campaigns against COVID-19.

3 | THE STUDY

3.1 | Aims

The objective of this study was to describe and understand IMs' experiences of health disparities while living in ISs during the COVID-19 pandemic.

3.2 | Design

A descriptive qualitative study with a naturalistic paradigm was carried out, which allows researchers to describe little-known

phenomena, through the views, interpretations or experiences of the participants in their natural state. This approach is suitable for exploring and learning about the experiences of IMs in a specific period and environment, using their own words (Kim et al., 2017). The Consolidated Criteria for Reporting and Publishing Qualitative Research (COREQ, Tong et al., 2007) were followed.

3.3 | Sample/participants

This study was carried out in several settlements in southern Spain. All the study's participants were IMs from six African countries. Their average age was 33.29 years (*SD* 9.11), 55.88% were male and 44.12% were female. The average length of residence in Spain was 5.09 years, 35.29% did not work and 64.71% worked in greenhouses. Participants were recruited through purposive sampling. Participants met the following inclusion criteria: (1) being an IM; (2) having been living in an IS for at least 1 year; (3) being of legal age; and (4) consenting to the study. The exclusion criterion was: (1) suffering from some type of psychological or mental pathology. For the recruitment of the sample, help was received from NGO professionals who work with IMs in ISs and nurses who worked at COVID-19 vaccination clinics in health districts. A meeting was held with the key informants (NGO professionals and nurses) in advance. They helped select participants, contacted the IMs, explained the study protocol and invited them to participate. Thirty-seven people were invited to participate, but three refused as they were fearful, having only been in the country for a short time. The final sample consisted of 34 IMs. The sociodemographic characteristics of the participants are shown in Table 1.

3.4 | Data collection

The data collection included three focus groups (FGs): two of the FGs were made up of women and one of men from different African countries; and 17 in-depth interviews (IDIs) with both men and women from Africa. Data collection was carried out during the months of January–May 2022 in ISs in southern Spain. The average duration of the FGs was 68 min, and the IDIs had an average duration of 54 min. Both the FGs and the IDIs were carried out by three researchers trained in qualitative research, following a previously rehearsed semi-structured interview guide with relevant questions (Table 2). Before starting the FGs and IDIs, sociodemographic data were collected, the protocol was explained, the confidentiality of the data was guaranteed and the informed consents were signed. All interviews were conducted in Arabic, English or French with the help of cultural mediators from NGOs that work with IMs and ISs, who underwent appropriate training and had practiced the interview guide. The interviews were audio-recorded, transcribed and analysed verbatim into Spanish. The researchers noted the non-verbal aspects of communication. Data collection ended when no new

TABLE 1 Sociodemographic characteristics of the participants ($N = 34$).

Participants	Gender	Age	Country of origin	Time in Spain	Type of work
FG1-1	Male	23	Morocco	1 year	Unemployed
FG1-2	Male	33	Algeria	2 years	Greenhouse
FG1-3	Male	22	Morocco	3 years	Greenhouse
FG1-4	Male	19	Algeria	1 year	Unemployed
FG1-5	Male	25	Mali	5 years	Greenhouse
FG1-6	Male	39	Chad	3 years	Unemployed
FG1-7	Male	54	Algeria	4 years	Greenhouse
FG2-1	Female	43	Morocco	5 years	Unemployed
FG2-2	Female	33	Nigeria	4 years	Unemployed
FG2-3	Female	42	Morocco	1 year	Greenhouse
FG2-4	Female	40	Nigeria	1 year	Unemployed
FG2-5	Female	41	Morocco	10 years	Unemployed
FG3-1	Female	30	Chad	8 years	Greenhouse
FG3-2	Female	45	Mali	12 years	Greenhouse
FG3-3	Female	26	Nigeria	2 years	Greenhouse
FG3-4	Female	28	Nigeria	7 years	Greenhouse
FG3-5	Female	35	Mauritania	6 years	Unemployed
IDI-1	Male	28	Mauritania	6 years	Unemployed
IDI-2	Male	40	Morocco	8 years	Unemployed
IDI-3	Male	42	Morocco	12 years	Greenhouse
IDI-4	Male	41	Algeria	6 years	Greenhouse
IDI-5	Male	37	Morocco	7 years	Greenhouse
IDI-6	Male	30	Mali	1 year	Greenhouse
IDI-7	Male	21	Algeria	1 year	Unemployed
IDI-8	Male	29	Chad	5 years	Greenhouse
IDI-9	Female	58	Mali	15 years	Greenhouse
IDI-10	Female	25	Mali	3 years	Greenhouse
IDI-11	Male	27	Morocco	10 years	Greenhouse
IDI-12	Female	25	Morocco	6 years	Greenhouse
IDI-13	Female	32	Algeria	3 years	Greenhouse
IDI-14	Male	35	Morocco	5 years	Greenhouse
IDI-15	Female	24	Nigeria	1 year	Unemployed
IDI-16	Male	35	Mauritania	6 years	Greenhouse
IDI-17	Male	25	Morocco	3 years	Greenhouse

Abbreviations: FG, focus group; IDI, in-depth interview.

information was provided when analysing the data, as data saturation had been reached.

3.5 | Data analysis

Data analysis was carried out using all the transcripts of the FGs and IDIs, as well as the field notes made by the researchers; these were incorporated into a hermeneutic unit and subsequently analysed independently by several researchers using the ATLAS.ti computer programme. The thematic analysis followed the steps described

by Braun and Clarke (2021): (1) Familiarization with the data: after the transcription of the data, the researchers read the transcripts with the aim of reaching a general understanding of what had been described by the participants; (2) Initial code generation: researchers chose representative citations and assigned interesting feature codes to them using the 'open coding' and 'in vivo coding' function in ATLAS.ti; (3) Generation of initial themes from data coding: the researchers generated initial themes through the grouping of codes with similar meanings that were linked through a central idea. A table with examples of the coding strategy using significant quotes, subthemes and topics was created (Table 3). (4) Development and

TABLE 2 Interview protocol.

Stage	Subject	Content/possible questions
Introduction	Motives	Understanding the experiences of irregular migrants living in informal settlements of health disparities during the COVID-19 pandemic
	Ethical issues	Tell participants that participation is voluntary and about registration, consent, confidentiality and the possibility to interrupt or leave the study at any time they wish
Beginning	Introductory question	Could you tell me how you find life in Spain?
Development	Conversation guide	What are the main difficulties you had to face when you arrived in Spain? How are the conditions in which you live? How is your health? How has the COVID-19 pandemic affected you? What measures have you taken to protect yourself from COVID-19? What is your opinion of coronavirus vaccines?
Closing	Final question	Is there anything else you would like to tell me?
	Appreciation	Thank them for their participation, remind them that their interview will be of great use and place ourselves at their disposition

Quotation	Initial code	Subtheme	Main theme
'The problem is that when I go to a greenhouse to look for work, the boss tells me give me money and when I give him money, he tells me I'll call you tomorrow, and he calls me at night and tells me that if you want to work you have to work with me' (FG2-3)	Defenselessness, intimidation, harassment, threats, blackmail, exploitation, violence, making a living, confinement	Abuse and exploitation: an accepted practice	Theme 1—Extreme vulnerability: informal settlements and abuse
'Thanks to the nurses and health workers, I am no longer afraid of getting infected! They made me see that thanks to the vaccine this virus is no longer so dangerous' (EP-1)	Prevention, vaccines, postponement of health treatment, fear, faith, hope and nurses.	Vaccination against COVID-19: the key role of nurses in vaccination campaigns in informal settlements	Theme 3—The impact of COVID-19 on the IMs' health: help from NGOs and nurses

Abbreviation: IM, irregular migrant.

revision of the themes: three researchers reached consensus on the themes and subthemes after independently verifying that all the generated themes were consistent with the codes and citations; (5) Definition and naming of themes: the researchers went through the most recent themes and fine-tuned the details by merging some of them. From this moment, the themes were given definitive titles. (6) Writing of the report: to write this report, the researchers chose the most significant quotes and synthesized the descriptions of each theme and subtheme. The researchers then refined the report by selecting the essential parts and linking them to the research objective and the scientific literature review. Codes that did not reach

68% consensus among the three researchers during the coding process (phase 2) were eliminated. The themes were named by the three researchers (phase 3), and then refined and validated by the whole team (phases 5 and 6).

3.6 | Ethical considerations

The report was carried out following the ethical principles of the Declaration of Helsinki. Permission was obtained from the Ethics and Research Committee of a university (EFM-185/2022).

TABLE 3 Examples of coding strategy.

The participants were informed of the objective of the study, the voluntary nature of participation and the possibility of withdrawing from the study at any time. The duty of confidentiality and anonymity was ensured in accordance with Organic Law 3/2018, of December 5, on the Protection of Personal Data and Guarantee of Digital Rights. Digital rights were guaranteed in compliance with the general regulation of Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016. Permission was requested to record the interviews, and informed consent was obtained from all participants before beginning data collection.

3.7 | Rigour

To ensure rigour, the criteria of Guba and Lincoln (1994) were followed. *Credibility*: the data collection was described in detail, and data analysis included researcher triangulation. The data analysis was then reviewed by two researchers who were experts in qualitative research and migration. *Transferability*: method, study setting, participants and reporting context were described in detail. *Reliability*: data analysis was confirmed by the revision of two team members with experience in qualitative research. *Confirmability*:

verbatim transcripts of participants' experiences were incorporated into our results by citations. Some of the study's participants who can read Spanish were given a copy of the data analysis and offered the opportunity to clarify the interpretation of the transcripts.

4 | FINDINGS

Inductive data analysis was used to extract three main themes and seven subthemes, which helps to describe and understand IMs' experiences of health disparities while living in ISs during the COVID-19 pandemic (Table 4).

4.1 | Theme 1—Extreme vulnerability: ISs and abuse

This theme describes the perceptions of IMs living in ISs in southern Spain. IMs from poor and war-torn countries described the situations that make them an endemically more vulnerable group than the rest of the population. The emergence of COVID-19 has put IMs at a further disadvantage.

TABLE 4 Themes, subthemes and units of meaning.

Themes	Subthemes	Units of meaning
Theme 1—Extreme vulnerability: informal settlements and abuse	Adversity hits the poorest people the hardest	Vulnerability, lack of basic resources, hunger, unhealthy and overcrowding
	Abuse and exploitation: an accepted practice	Defenselessness, intimidation, harassment, threats, blackmail, exploitation, violence, making a living and confinement
Theme 2—Inequality in health treatment has increased during COVID-19	Difficulty in accessing the health system	Location far from urban centres, access barriers, language barrier, unequal treatment and xenophobia
	The therapeutic approach to communication	Shame, ignorance, lack of communication, effort, COVID-19 information, equitable system and cultural mediators
Theme 3—The impact of COVID-19 on the IMs' health: help from NGOs and nurses	Complications for people without fundamental rights in the fight against COVID-19	Restriction of movement, intrusive thoughts and undervaluing health
	Managing to adapt to new living conditions: support resources from NGOs	Loneliness, hopelessness, social rejection, prevention material, social help and NGOs
	Vaccination against COVID-19: the key role of nurses in vaccination campaigns in informal settlements	Prevention, vaccines, postponement of health treatment, fear, faith, hope and nurses

Abbreviation: IM, irregular migrant.

4.1.1 | Subtheme 1: Adversity hits the poorest people the hardest

The participants' accounts reflected lucidity and courage, that made some of the invisible elements of society apparent. One of these were the overpopulated ISs, made up of small shacks where people live in precarious conditions, without access to drinking water, electricity, a sewage system or rubbish collection. The growing asymmetry in the living conditions and human rights of IMs is the result of a process of social dehumanization that leads to an increased risk of exposure to infections.

'Life in the shack is very difficult because there is no water, there is no electricity, when it rains it is very cold, when it is hot it is very hot ... there is garbage everywhere, everything is dirty' (EP-5).

The discomfort and serious food shortages faced by this population leads to the increase in conditions stemming from their previous ailments. The participants' testimony of this experience of poverty and survival is a reflection of helplessness and destruction as well as their struggle to maintain good health. According to the participants, the precarious and unhealthy conditions in which they live, as well as the lack of hygiene and overcrowding, has resulted in the overall contamination of their environment.

'As you can see, I have nothing ... I have few vegetables, I have no fruit, it smells very bad, there is no hygiene at all, the food is rotten' (EP-3).

The impact of the COVID-19 crisis has affected people differently depending on where they live. According to the social inequalities model, inequalities in housing conditions including level of occupancy, access to safe water, sewerage, etc., contribute to an increased risk of infections, including COVID-19. The participants described the few hygienic measures that they had at their disposal, considering that they live among plastic waste, clean themselves with non-drinking water, accumulate faeces and waste due to the lack of waste management by the city councils. The pandemic has thus made visible the need for universal access to essential resources like water among the migrant community, who are denied the possibility of washing their hands or maintaining social distance, essential measures to protect themselves from the virus.

'Covid has not only complicated things for us, but it has also destroyed everything. However much I clean the floor, just look at how it is, things can get in, there is no hygiene at all' (EP-10).

'... How was I going to isolate myself if there are six of us in a room? Men and women shared a room' (FG1-4).

4.1.2 | Subtheme 2: Abuse and exploitation: an accepted practice

The pandemic has an impact on work conditions and unemployment, which are SDH. The IMs described the working conditions imposed on them in the greenhouses in the context of a pandemic. The irregular contracts that the IMs accepted meant that, in most cases, they were physically exhausted from agricultural work. Some of the owners of these businesses established a common socio-economic pattern of abusing their power by blackmailing the IMs into extreme working conditions with the hope of obtaining Spanish nationality.

'But with most bosses you have to work non-stop, there are times when you want to stop, and they won't let you, you have to work and work fast' (EP-4).

'My boss has told me that I have to work with him for three years to get a contract, and with that contract I can ask for the papers later' (EP-6).

In this scenario of poverty and uncertainty, the participants emphasized the decision to continue fighting in the face of an uncertain future. To cope with the pandemic, measures such as working from home were proposed to prevent the spread of the virus. The participants prioritized finding work. Most are economically vulnerable, informal workers who must continue to work to survive on their daily income and few prevention measures, thus putting them at a higher risk of exposure to the COVID-19 virus. Participants' perceptions suggest that they are used to pain from a young age.

'It is what it is, even if you want to change, you cannot change, so you need patience and have to put up with things' (EP-2).

'While people were confined to their homes, we had to work in the greenhouses; in the greenhouses there was even more work' (EP-5).

Some participants expressed the common problems that surround the lives of IM women. This gender category would fall within the structural determinants of SDH, since it modifies the social position of women. Women face a confluence of negative characteristics that make it difficult for them to have equal access the health system and social protection. The participants recounted their daily reality with examples of devastating human acts from the perspective of violence and helplessness. The circumstances described by the participants reflected their resilience when facing obstacles to accessing the health system. The lack of attention to the health and social care needs of immigrant women are a common challenge for many contemporary systems. Migrant women in an irregular situation continue to be at a disadvantage throughout the world.

'The man who comes to the shack realized that I had fallen, and he told me I hope you die, die and do yourself a favour ... I'm going to come and rape you, and I'm going to destroy your life' (EP-15).

'The problem is that when I go to a greenhouse to look for work, the boss tells me, give me money and when I give him money, he tells me I'll call you tomorrow, and he calls me at night and tells me that if you want to work you have to work with me' (FG2-3).

4.2 | Theme 2—Inequality in health treatment has increased during COVID-19

This theme deals with the difficulties that IMs face in using and accessing the health system, which have increased during the COVID-19 pandemic. Most IMs find it difficult to access the health system due to lack of information, access to benefits, digital exclusion or cultural differences. Many of the IMs have insufficient resources to travel to the urban centres where the hospital or a health centre is located. Furthermore, some of the participants expressed concern about the inability to establish effective communication with some of the health providers, which worsened during COVID-19.

4.2.1 | Subtheme 1: Difficulty in accessing the health system

Despite the heterogeneity of the participants, a shared defining feature described by the IMs were their similar conditions of inequality and chronic inferiority. Participants reported difficult access to the healthcare system, a problem that increased during the COVID-19 pandemic due to the saturation of health centres and limited face-to-face assistance; the telephone assistance provided was an added factor in their exclusion due to the language barrier. Some participants expressed the rejection they felt from the public healthcare system, who failed to meet their health needs. Access to health services is an intermediate determinant of SDH. The problem of inequity in the health system and the difficulty of providing care to IMs, illustrate the real needs of this group and the importance of providing them services.

'We don't have means of transportation, the men go by bicycle to the health centre and the women when someone offers, but for money of course' (FG3-1).

'... the health centre was closed. They called you on the phone, but I didn't understand what they were telling me...' (EP-7).

The IM community has a set of conditions that worsen their quality of life. The violation of their rights has an impact on their health. The

scarcity of economic, social and health resources, hinder their access to an adequate diagnosis and treatment. The participants perceived the way the healthcare model works as unfair. When they were asked about what solutions could help them, they expressed a desire for access to an equitable health system that would include health coverage, such as access to medicines based on their financial capacity. Some IMs explained that their condition had worsened due to not being able to pay for treatment, and mentioned the difficulty of getting a diagnosis in a pandemic context.

'I often don't have the money to buy that medicine ... and in the end I don't take it. There is less work, less money to buy the basics ... an improvement could be that the health centre would give us the medicine'. (GF1-1).

'I felt bad, I was physically very tired! I didn't know if I had COVID. The Spanish people go to the doctor and they get all the details, but we don't, that's the inequality! ... I couldn't have a test because he didn't understand, he couldn't explain. They don't translate, we don't understand anything, and they solve everything with a pill. I wish there was a nurse who spoke my language to explain!' (EP-1).

'I would like them to give us more time, more care, to do tests ... the doctor doesn't even touch you, he stays in his chair and only gives you pills' (G-2).

The IMs describe various difficulties in accessing the health system. The location of the ISs restricts access to urban centres and health services. The second wave of COVID-19 made it difficult to return to normal health care, with the cancellation of medical procedures and surgical interventions that required hospitalization. One of the participants describes how this situation affected his state of health:

'...I had been waiting for a year to be called to have surgery on the lump on my head, and I couldn't have surgery because I tested positive' (EP-14).

4.2.2 | Subtheme 2: The therapeutic approach to communication

The interviewed participants expressed their concern regarding some healthcare providers' lack of tolerance, and the generalized social rejection they face. Hostility towards IMs in some health centres is perceived as an attack on their vulnerability, which makes comprehensive care impossible and leads to a deterioration in the quality of care. Based on the views of the study's participants, this negative attitude displayed by some healthcare providers increased during the pandemic and has a negative impact on the quality of care in terms of access, equity and respect.

'At the doctor's, as I was wearing a mask and a hijab, they didn't let me in, and they told me to leave' (FG2-1).

'For example, in Ramadan they tell us: why do you come here? Drink some water' (FG1-3).

In the interviews conducted, the participants described the communication process that was established with the health providers. Taking into account the situation of dependency and vulnerability that surrounds IMs, system failures due to the lack of responsibility of some of the healthcare providers were mentioned. Within the context of health inequalities, language is a determinant that affects health care and leads to lower satisfaction with health services. IMs do not know the language of the country to which they have emigrated, and therefore have insufficient knowledge or the necessary tools to document their health problems, especially in emergency health situations such as COVID-19. In addition, some healthcare providers did not communicate adequately with this group by avoiding the use of social skills such as respect, empathy and active listening that facilitate the communication process. Inadequate communication and lack of telephone interpreters increase health disparities in the context of COVID-19.

'He didn't explain the treatment to me! I didn't know how to take it, nor the guidelines or anything' (FG1-4).

'Well, we can't communicate, so we just say my head hurts, it hurts [...], we can't see the doctor either, and so on. They also give us phone appointments, and since there is no translation provided, we can't do anything' (EP-17).

The results of this study revealed the figure of the cultural mediator as an essential element in health care for the migrant population in public health services. The participants expressed some common situations in the health sphere, in which they did not have the ability to communicate, to express their pain or to speak. In general, the IMs' experiences were of fear and resignation as a result of the way they had been treated by the health services. Within the paradigm of the violation of the rights and freedoms of IMs, the participants defended the presence of a cultural mediator within the communication process in order to guarantee essential quality services in society.

'Well, mainly that there is someone who can translate for us. I think my roommate has COVID ... I go to the doctor, and I want to tell him what's wrong, and I don't know how to tell him. I tell him the first thing that comes to mind. I tell him my head hurts, but my head doesn't hurt' (FG1-4).

'And where are the intercultural mediators? ... If, for example, there was one in the hospital, I would go to

the intercultural mediator before talking to the doctor, so we could understand each other better' (FG3-3).

4.3 | Theme 3—The impact of COVID-19 on the IMs' health: Help from NGOs and nurses

This theme seeks to describe and understand the needs perceived by the study's participants during the pandemic, and raises new clinical, social and community issues that need to be addressed. The mobility of this population, together with the barriers to accessing the health system, has pointed to the need for new planning strategies to ensure that IMs have equitable access to vaccination against COVID-19.

4.3.1 | Subtheme 1: Complications for people without fundamental rights in the fight against COVID-19

The crisis caused by the COVID-19 pandemic not only has had a global impact on the population, but it also has hit people who are in an extremely fragile situation the hardest. Social and family support are vital factors within the SDH framework. The participants underlined the consequences of the mobility restrictions due to COVID-19, but feelings of sadness arose when they recalled the difficulties in meeting their basic needs, and, above all, they were unable to visit their families to support them in difficult times as borders were closed.

'... I still haven't been able to go home, the borders are still closed... My father got infected and was hospitalized for 3 weeks' (EP-14).

'Before, I used to find ways to make a living, I went to look for fruit, I went to look for someone and I could work for a day, but with the confinement I couldn't do that, I had to be confined, so I went hungry, I didn't have anything to eat, I couldn't do it! I had nothing!' (FG3-5).

A key issue highlighted by the participants was the lack of importance they place on their well-being. The participants' statements revealed their feelings of acceptance and resignation since arriving in Spain. Many of them put aside concerns about their health, due to their lack of awareness and misinformation regarding diseases such as COVID-19 and the impossibility of complying with prevention measures.

'At first I thought it was a lie ... We don't give it any importance either, we don't stop to think about how my health is, we live from day to day, and that's it' (EP-6).

'... In Africa with yellow fever the same thing happens to us, I did not understand that in Spain they went so crazy because of the Coronavirus'. (FG3-3).

4.3.2 | Subtheme 2: Managing to adapt to new living conditions: Support resources from NGOs

The challenge of migration, together with COVID-19, raised a series of social and community issues that established the need for humanitarian assistance more than at any other time in the past. Most of the participants highlighted the strong social deprivation they experience in their community. Social integration and social support are determinants of SDH that contribute to improving health. The lack of solidarity in the community towards IMs makes them fearful and insecure, resulting in an increased risk of problems that affect them on a biological, psychological, social and spiritual dimension. In this regard, some participants noted the physical and mental exhaustion they suffer due to the violation of their rights. The perceived need for new humanitarian aid mechanisms that respond with unity, forcefulness and solidarity is evident.

'When I have a problem I leave it inside my heart or I leave it like that, I don't have anyone to support me' (EP-2).

'I feel that my tears are useless, no matter how much I cry, it doesn't solve anything' (EP-4).

The participants commended the voluntary institutions for providing relief to the IMs who live in ISs, by giving them water, food, medicine and clothing. The participants highlighted that during the first waves of COVID-19, the NGOs provided them with masks, hydrogel and bleach to protect themselves from the virus. However, the statements of some participants about the scarcity of community aid during the pandemic and the lack of care coordination reflect the inequality in health care.

'The help we have is from the NGOs. They gave us a bag of masks, a bottle of hydrogel, and cleaning products ... I use the same mask until it tears' (EP-9).

'There are not many people who can give me support, the most important thing for me is to find a job to be able to live a little better' (EP-1).

4.3.3 | Subtheme 3: Vaccination against COVID-19: The key role of nurses in vaccination campaigns in informal settlements

The controversy over vaccination was one of the most debated topics among the participants, who had differing opinions. The IMs

disagreed on the efficacy of the vaccine, criticized the lack of information in their own language, having to resort to alternative sources such as social networks and friends. Other challenges arose too, such as the fear surrounding legal rights to accessing this service. Several of the study's participants pointed this out:

'... My mother was infected at Christmas and was vaccinated. I read on the internet that the vaccine does not prevent you from getting infected, but it does mean that you have fewer symptoms if you get it'. (FG2-5).

'... We had to be careful because since we didn't have a green card (health card) ... we didn't know if I would be vaccinated' (EP-7).

The IMs referred to different reasons why they chose to receive the vaccine to prevent COVID-19 infection. Some of the participants received the vaccine to be able to enjoy leisure and hospitality services. This temporary requirement was implemented in Spain during the sixth wave from January 2022 to March 2022. Other participants decided to get vaccinated in order to make it easier to travel between Morocco and Spain once the borders were opened in Morocco. In addition, they said that if they had been vaccinated, it had been an exception in order to obtain the vaccination certificate since they were asked for it by their employers.

'...if I get vaccinated it is to be able to go to night-clubs...' (EP-16).

'...they ask me for the second dose to enter Spain, but the third dose to enter Morocco ... this is a mess'. (EP-12).

'... My boss asked me for the vaccination certificate, and if I wasn't vaccinated, I couldn't work' (EP-17).

The participants indicated their preferences in light of a number of vaccines against Covid-19 being available in Spain. They were also afraid of having to be vaccinated, due to their intrinsic personal fears, such as pain or the prick of the vaccine needle.

'I've been afraid of needle pricks since I was born ... I prefer one dose only...' (FG3-4).

'I preferred to get the same vaccine that I got before'. (FG2-2).

Vaccination is a challenge for IMs, due to inequalities in accessing the health system. Nurses from several health districts in the area launched a COVID-19 vaccination point for the most disadvantaged, including IMs living in ISs. With the collaboration of different

NGOs, they created a network with the necessary logistics to carry out the vaccination campaign, reaching as many people as possible. Community health nurses involved with the most vulnerable groups were key to facilitating vaccination in ISs. The study's participants showed their gratitude for facilitating access to vaccines, a halo of hope to end this virus.

'...I couldn't believe it when I saw the tents next to where I live! ... Everything was very easy and fast' (FG2-5).

'Thanks to the nurses and health workers, I am no longer afraid of getting infected! They made me see that thanks to the vaccine this virus is no longer so dangerous' (EP-1).

5 | DISCUSSION

The aim of this study was to describe and understand IMs' experiences of health disparities while living in ISs during the COVID-19 pandemic. The SDH model developed by the WHO (2022) has allowed us to understand the experience of IMs and the influence of SDH on health inequalities during pandemics. The constant arrival of IMs in the EU, with southern Spain being one of the main destinations for emigration (Fotaki, 2019), comes with the need to understand the IMs' experiences. Studies suggest that the COVID-19 pandemic is widening the social, economic and health gap that characterizes the migrant population in an irregular situation (Allande-Cussó et al., 2022). The exclusion and vulnerability linked to ISs increases the risk of diseases that can affect the health of this group, raising more social and health inequalities (García et al., 2021; García-Pazo et al., 2022). In line with the results of this study, McNeely et al. (2020) confirm the inaccessibility to basic services. The lack of access to drinking water, sanitation and the putrefied state of food increase the risk of diseases such as COVID-19 (Corburn et al., 2020). IMs live in poverty due to working and housing conditions, and insufficient resources to protect themselves from COVID-19 (Allande-Cussó et al., 2022). Most IMs live in crowded conditions in shacks and find it difficult to maintain social distancing or self-isolate (Matlin et al., 2021). In terms of work, some participants emphasized the fact that the social restrictions applied during the pandemic had reduced their chances of finding work; the IMs accepted any job without considering the repercussions that it might have on their health status (Allande-Cussó et al., 2022; Oliva-Arocas et al., 2022). Migration is associated with gender-based violence. The difficulties migrant women in an irregular situation encounter trying to access health services and housing, as well as the abuse they face when looking for work, perpetuate the deficiencies of the system (Jiménez & Ruiz, 2021). Consequently, the condition of women depends to a large extent on the male figure, thus increasing their vulnerability. It was observed that the female group did not report the abuses for fear of possible reprisals (Silva & Castillo, 2021).

The findings of this study suggest that the barriers to accessing the health system could be the result of the alignment of cultural experiences, marginalization and discrimination, which affect the health needs of this group and consolidate the inequities of the system. A lack of financial resources is another indicator of SDH, which prevents this study's participants from buying the medication they need or getting public transport to a healthcare centre, due to distance. Concurring with other studies (Matlin et al., 2021; McNeely et al., 2020), the participants expressed their disappointment with the health care received due to a lack of medical translation professionals with cultural awareness, which hindered a clear medical diagnosis and understanding of the medication prescribed. The participants highlighted the discrimination they encountered when receiving health care such as the healthcare professionals' stereotypical notions regarding their health during Ramadan or other cultural conflicts (McNeely et al., 2020). The healthcare workers' lack of intercultural training reduces the quality of care for this community. Similarly, other studies recognize the power of a nurse to confront these barriers, through professional development and training in cultural competencies and skills (Sevinç et al., 2016). As community health nurses work closely with ISs, they are key in identifying IMs at high risk of health conditions and enabling them to protect themselves from the virus. They are also crucial in identifying cases and planning a response to COVID-19 (Corburn et al., 2020). The safety and empowerment of people who access health services is the responsibility of health institutions and systems. Our study highlights that cultural mediators can perform essential work during clinical management (Pusey-Reid & Blackman-Richards, 2022). The impact of COVID-19 has affected populations globally; as the results of this study show, one of the health consequences of the COVID-19 pandemic is reflected in the delay in surgical operations. Furthermore, as care is provided via telephone as a result of healthcare centres closing, the language barrier makes it difficult for IMs to access health care. This is further compounded by the digital divide that limits IMs from obtaining and understanding healthcare information regarding COVID-19. (Matlin et al., 2021). The sum of these circumstances puts IMs in a situation of cumulative disadvantage in the context of the COVID-19 pandemic.

This study shows how difficult it is for IMs to comply with preventative measures introduced by government institutions during the pandemic, which contributes to their feelings of being socially excluded, thus affecting their biopsychosocial well-being (Oliva-Arocas et al., 2022). Added to this factor is a lack of knowledge about the disease or the availability of vaccination, as well as a low perception of the risk of the disease (Thomas et al., 2021). With the closure of borders in Morocco and mandatory isolation measures in Spain, many of the IMs were living outdoors and unable to look for any type of food to cover their basic needs (García-Pazo et al., 2022). In this regard, NGOs play an important role in meeting the basic needs of IMs. The study's participants highlight the humanitarian aid provided by the NGOs to this vulnerable group by delivering them hygienic material to protect themselves from the COVID-19 virus, as well as food and water to cover basic needs (Jiménez & Ruiz, 2021). The

coordinated action between the healthcare sector and the NGOs has facilitated the implementation of mobile vaccination centres in the ISs, which has enabled this population to be vaccinated in convenient places and at appropriate times. Community health nurses have played a fundamental role in protecting IMs from COVID-19 (Corburn et al., 2020). Consistent with other studies, the IMs were grateful to the nursing staff for facilitating access to the COVID-19 vaccine and helping them to trust in the health system (Thomas et al., 2021).

5.1 | Limitations

This study has several limitations that should be considered when interpreting the results. All participants were IMs from African countries, and other nationalities might give different results. Although the researchers were accompanied by cultural mediators who spoke the languages used during the interviews, the variation of dialects within the same country may have influenced the understanding of the experiences.

5.2 | Recommendations for further research

Understanding healthcare providers' and NGOs' perspective on the care provided to IMs would improve health care for vulnerable populations.

6 | CONCLUSIONS

IMs are at higher risk of exposure to COVID-19 due to their precarious living conditions, administrative situation, unequal access to services, lack of knowledge of the system and language and cultural barriers. The results of this study suggest that these difficulties have increased during the COVID-19 pandemic. Aware of this, IMs are calling for a cultural mediator as an essential component of health care. Participants in this study are grateful for the care provided by NGOs and community health nurses to protect them from COVID-19.

Given the findings of this study, it is recommended that health institutions strengthen specific programmes that address the problems relating to IMs' access to vaccines and the health system, especially in health emergencies. It is also suggested that strategies be developed that promote multidisciplinary care between NGOs and community health services working in marginalized areas. Understanding the experiences of IMs could improve the health care provided to vulnerable populations.

AUTHOR CONTRIBUTIONS

José Granero-Molina, María del Mar Jiménez-Lasserrotte, Violeta Lardon Galindo, Clara Hernández Sola, José Manuel Hernández-Padilla and Karim El Marbouhe El Faqyr: Made substantial contributions to

conception and design, or acquisition of data, or analysis and interpretation of data. José Granero-Molina, María del Mar Jiménez-Lasserrotte, Violeta Lardon Galindo, José Manuel Hernández-Padilla and María Isabel Ventura-Miranda: Involved in drafting the article or revising it critically for important intellectual content. José Granero-Molina, María del Mar Jiménez-Lasserrotte, Violeta Lardon Galindo, Clara Hernández Sola, José Manuel Hernández-Padilla and Karim El Marbouhe El Faqyr: Given final approval of the version to be published. Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content. José Granero-Molina, María del Mar Jiménez-Lasserrotte, Violeta Lardon Galindo, Clara Hernández Sola, María Isabel Ventura-Miranda, José Manuel Hernández-Padilla and Karim El Marbouhe El Faqyr: Agreed to be accountable for all aspects of the study in ensuring that questions related to the accuracy or integrity of any part of the study are appropriately investigated and resolved.

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CONFLICT OF INTEREST STATEMENT

No conflict of interest has been declared by the authors.
No Patient or Public Contribution.

IMPLICATIONS FOR THE PROFESSION

Understanding IMs' experiences of health disparities while living in informal settlements could improve the care provided by community health nurses in marginalized areas.

NOTIFICATION METHOD

This study has adhered to the relevant EQUATOR and COREQ guidelines.

PEER REVIEW

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DATA AVAILABILITY STATEMENT

Data available on request from the authors.

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