

**Review Article****Working conditions and health of the immigrant worker population: a literature review**Ana Jigato-Calero¹ , Rocío de Diego-Cordero¹ ¹ Faculty of Nursing, Physiotherapy and Podiatry. University of Seville, Seville. Spain.**ABSTRACT**

Introduction. The migrant flow has increased worldwide in recent years, mainly because of the need to look for work in other countries in order to improve their quality of life. The immigrant community usually carries out the jobs which native people have rejected due to the precarious nature of the working conditions involved in the labour. The aim of the current study is to find out more about the working conditions and how it affects the health of the immigrant worker community.

Methods. Literature review of scientific articles by searching the databases Pubmed, Scopus, WOS and Cinahl (2014-2019). Reviews of the full text articles have been included, based on the established inclusion criteria. Twelve articles were selected for review.

Results. The main topics of the reviewed studies are the health consequences in immigrant workers (n=10), the factors that make immigrants more vulnerable to suffer occupational hazards in comparison with native workers (n=10), the measures that could prevent it (n=7) and the existence of gender differences that emphasize the health problems in female immigrant workers (n=6). The major findings of the studies show that precarious working conditions, discrimination at work, cultural barriers and inaccessibility to health services leads to poor physical and mental health in the immigrant worker community.

Conclusions. Further investigation is needed to better understand how and who could prevent this situation of vulnerability in the immigration worker community.

Keywords: Labour conditions; Migrant workers; Occupational health; Occupational health nursing.

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Introduction

The migrant flow has increased worldwide in recent years. According to the International Organization of Migration (IOM), the number of immigrants worldwide reached 272 million in 2020 (1). There are many causes to emigrate but the main cause of the immigrant population is to access the labour market. The immigrant community is important to the economy of the country because they execute the jobs that native people reject (2). The IOM defines immigration as a process by which non-nationals move into a country for the purpose of settlement (3).

According to the data collected in the last census in 2018, Spain has 46.659.302 residents, 9'5% of the population are foreign (4). Since 2017 the migration rate has been increased 28.4% because of an increase of immigrants from low-income countries who were searching for better social and economic conditions in Spain (5). The Moroccan population is the biggest population in Spain, followed by Peruvian, Venezuelan and Honduran community (4). Spain acts as a focal and economic point for the immigrants who are looking for jobs. However, the employment rate in 2017 was 48.7%, positioning Spain as one of the worst countries of Europe with worst employment figures (6).

The immigrant community is more likely to work in the labour sectors that native people reject due to the precarious conditions of them and job instability. These jobs are commonly known as "3D jobs" because they are dirty, dangerous and difficult. These jobs frequently belong to: agriculture sector, hotel industry, construction sector and domestic staff (7). Besides, nationality and gender are related to the type of work. For example, women are more likely to work in the domestic staff and Moroccan men usually work in the construction sector (8).

Despite the fact that 50% of immigrants have higher studies or vocational training, the immigrant worker community often experience difficulties in working in skilled jobs. In that regard, Colombian community is the most affected population because their vocational training is not always considered by the receptive country (2,9).

Businessmen claim that immigrants adapt quickly to the job despite their inexperience in the sector because they need a job to gain a residence permit and to cover their basic requirements and their families' requirements too. It is for this reason that their working conditions are characterized by job insecurity and low qualification (10,11).

There are differences among natives' salary and immigrants' salary due to individual characteristics, working conditions and nationality, this discrimination is larger in Asian and African population (12). In 2018, 9.62% of immigrants earned less than 500€ per month (13).

In 2017, Spain logged 515.082 workplace accidents leading to work leave. These accidents affected 70% of men and the majority of them were European with indefinite contracts as opposed to immigrants who had a temporary job when the accident happened. Employment sectors which were more affected were those in which the immigrant community is more likely to work (14).

Businessmen fail to invest in occupational health and workplace hazard prevention, sometimes this affects more to the health of native people than immigrant population because of the effect of "the healthy migrant effect" (15). In addition to the few preventative measures, the immigrant community has to deal with the difficulty to access to public health, ethnocultural differences, communication problems related with the language differences and the concerns about their family' health (2). They tend to give greater priority to work than health and they neither know the health coverage to which they have access (10).

Despite the lack of preventive measures, in Spain, the article 40.2 of the Constitution and the Law of the Prevention of Risk in the Workplace claim that every worker has the right to healthcare and protection of their occupational health (16). Likewise, since 2006 is approved the occupational health nursing in Spain, whose objective is to prevent ill health and accidents, to promote occupational health to achieve the highest possible level of psychosocial well-being and to adapt the work to individual needs (17,18). In addition, because of the migration process, cultural diversity at work makes it necessary for nurses to apply the Transcultural Nursing Theory described by Madeline Leininger. She affirms that to give competent and culturally consistent care, nurses must respect cultural differences and similarities (19). Leininger's Sunrise Model explains the factors that must be borne in mind when nurses give care (20).

The aim of the current study is to find out more about the working conditions and how it affects the health of the immigrant worker community.

Methods

This is a literature review and it is in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Statement (21). This review included both quantitative and qualitative studies published in peer-reviewed journals. Any opinion pieces, such as editorials or other forms of popular media, letter to the editors or case reports were excluded from this review.

Literature research

We search in Scopus, WOS, Pubmed and Cinahl using the same research terms during March and April 2019. To perform keyword searches of each database, it used MeSH and DeCS descriptors. The research terms were:

“migrant workers” AND “occupational health”.

The information was collected from primary (scientific articles) and secondary sources (databases). Two researchers (AJ and RD) performed the searches following the same strategy. These two reviewers (AJ, RD) were in charge of extracting the data independently with 100% in the percentage of agreement regarding the inclusion/exclusion of the studies. In the first place, duplicate records were verified for their elimination and later, with the extracted data, a narrative synthesis was carried out.

The studies were then independently selected and analysed by two reviewers (AJ, RD), according to the established eligibility criteria, after review of the titles and abstracts. The selected studies were then analysed by reading the full text to verify that they continued to meet the inclusion criteria.

Inclusion criteria

We included studies which fulfilled the required criteria:

- The study is related with the aim of our review.
- The study was published between 2014 and 2019.
- The study is written in Spanish or English.

Exclusion criteria

We excluded articles which fulfilled the following criteria:

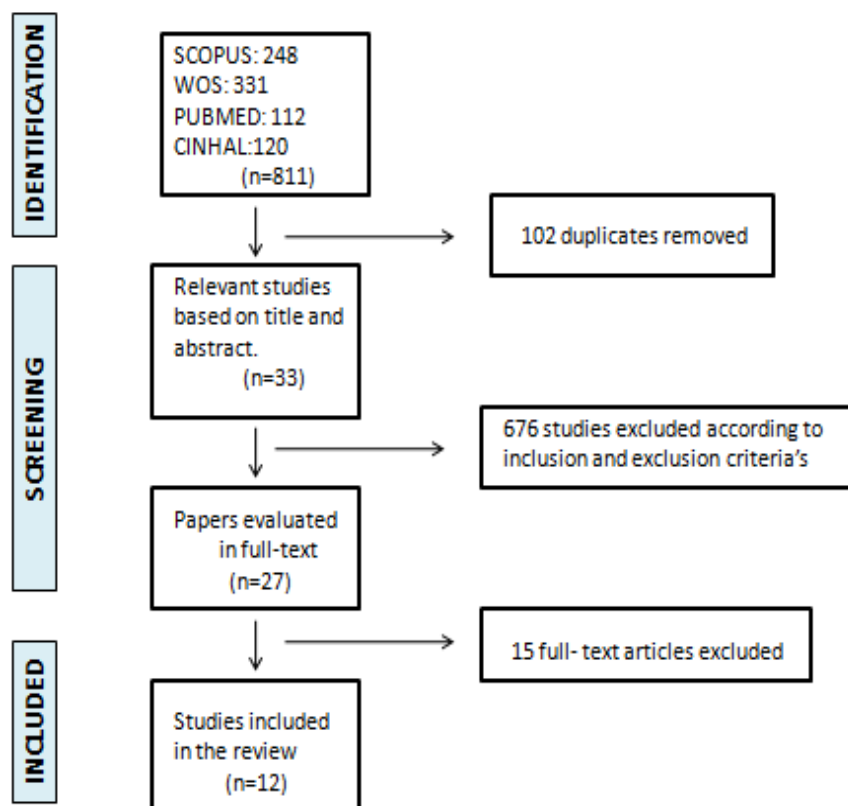
- The study appears in different databases.
- The study is written in a language different to Spanish or English.

Results

The search resulted in 881 articles. Finally, having applied the inclusion and exclusion criteria, 12 articles have been included: 3 literature reviews (22,23,24), 3 systematic reviews (25,26,27), 1 exploratory mixed study (28), 2 qualitative and quantitative studies (29,30), 1 secondary analysis (31), 1 cross-sectional study (32) and 1 cohort study (33).

A flow chart has been developed, in accordance with the PRISMA Statement (21), to expose the selection process of the articles included (Figure 1). Furthermore, a table which synthesizes the essential information and characteristics of each study (Table 1) has been created.

Figure 1. Flow chart, own elaboration based on PRISMA Statement.



The studies were from Canada (n=4), Spain (n=2), Norway (n=1), Qatar (n=1), EEUU (n=1), Nepal (n=1), Turkey (n=1) and Italy (n=1). The participants included in the reviewed studies were aged 25-45 years. The major findings from included studies show

that immigrant workers tend to develop diseases and occupational accidents because of their precarious working conditions and the exposition to occupational hazards (22-27, 29, 31-33). Besides, studies describe the measures that could prevent it and the interventions and policies needed to protect migrant workers (22-26, 30, 33). Furthermore, studies that compare native workers with immigrant workers show that immigrants are more vulnerable to suffer health problems than natives because of different factors such as inaccessibility to health services, discrimination at work and vulnerability, as a result of the migrant flow, the cultural barriers and the fact of being a immigrant, especially a recent immigrant (22-24, 26-28, 30-33). Lastly, some of the reviewed studies have found the existence of gender differences between migrant workers that emphasize the health problems in female immigrant workers (23-25, 28, 29, 31).

Discussion

This literature review provided evidence about how are the working conditions in immigrant workers and how it affects the health of them. Our results showed a negative impact of immigrant workers' health.

In reference to the most prevalent diseases and accidents, different studies claim that immigrant workers have higher rates of morbidity and mortality than native people due to the diseases they suffer because of their working conditions (22, 25-27, 33). Even so, immigrants have more presenteeism and less work leave (23, 27).

The environmental and working conditions determine the possible illness that immigrants could develop (24). In this way, workers of the construction sector are more at risk of trauma, in agricultural sector are more frequent respiratory and dermatological diseases and lung cancer is more usual in workers who work in environments with high levels of pollution (26). In addition to these diseases, there are others that frequently appear in immigrant workers such as headache, asthenia, skeleton pains, cardiovascular diseases and mental disorders (23, 32). We found difficulties in establishing the main cause of occupational accidents. Three of the reviewed studies concluded that traumatism due to falls, cuts or sprains are the main cause of accidents in immigrant workers. Nevertheless, the participants of this studies worked in the construction sector, so the evidence is not conclusive (22, 26, 32, 34).

Several factors have been described to explain why immigrants are more likely to suffer risk at work, some of these factors are the individual characteristics or the preparatory training (23). However, other studies claim that the migratory flow has an effect on the occurrence of diseases because the cultural change produces stress in the organism (23,35).

In addition to the deterioration of physical health, the results of the studies have revealed that immigrant workers have worse mental health than native workers, evidenced by cases of burnout, anxiety, depression, personality changes and suicides (23, 24, 28, 31, 36). In an exploratory mixed study that we have reviewed, participants affirm feeling weak and with a dull personality after coming home from work (27). In another study, the results showed worst mental health in semi-urban than in urban immigrant workers, despite the fact that both groups worked in the same labour sectors and they were the same age (32). On the other hand, the study results identify more discrimination in immigrants than in native workers (37-39). Especially, we found two qualitative studies in which participants reported high levels of mistreatment from their clients and managers. The first study analysed women who work in the sex industry in Vancouver and the second study examined the working conditions of trafficked men from the Greater Mekong Subregion (25,29).

In reference to occupational hazards and measures to prevent them, immigrant workers are not exposed to greater risk at work than native workers when they carry out in the same labour sector. However, the immigrant community, because of their poor economic situation, is used to working more hours than native workers so the exposure to risks is higher (23). Moreover, labour sectors in which immigrants are used to work are characterised by the lack of security measures, vocational training and personal protection equipment. The lack of this equipment makes them more vulnerable to risks because they are exposed to high temperatures, vibration, moisture and noises without the adequate protection (22, 24, 30, 33).

The reviewed studies conclude that there are different factors which make immigrant workers more vulnerable to occupational hazards. These factors are the lack of security measures, the ignorance of their rights as workers, the inexperience at work and the racial diversity (22, 25, 30). Parallel to the above, the results of a systematic review about the impact of language and culture diversity at work, show that language barriers are

also risk factors because confusion and misunderstanding among workers usually occur. Consequently, immigrants are used to learning by themselves even though it is not always effective (40). In the same way, culture also has influenced the apparition of occupational risks because each worker depending on his culture perceived the risks differently. The use of protocols and training with pictograms or role-playing could be effective to overcome this problem (40-42).

It should be pointed out that, according to the results of a systematic review that we have included in our study, the lack of protection at work is intensified in trafficked workers. Besides, immigrants who speak more than one language are at higher risk for suffering occupational hazards (25).

To sum it up, studies conclude that the State should provide appropriate training for vulnerable workers and they should prevent occupational risks by using training protocols (22-24, 26, 29-33). Nonetheless, we found a scoping review which concludes that occupational health nurses are the professionals who should introduce the use of security measures and appropriate healthcare considering social and cultural characteristics of each worker (43).

In relation to vulnerability and access to health services, there are different contributing factors that has been analysed in the reviewed studies, such as the social impacts of migration, family and home care responsibilities, job insecurity and accessibility to health services. The immigrant workers interviewed in a cohort study and in a qualitative study included in this review affirm that they could not demand better working conditions to their boss because they were uninformed about their rights as workers and, due to their economic status, they could not put themselves at risk of losing their job (30, 33).

The data available to us through this review of the literature confirm that the quality life of immigrant workers is worse than natives, as many studies highlight that immigrants often have lower incomes, heavier workloads, lower education levels, more working hours and they tend to live in crowded housing in comparison with native workers (24, 26, 27, 44, 45). Besides, there are also differences between immigrant workers. Those who work in small and medium businesses are more vulnerable because there is less supervision and protection at work, illegal immigrants are more at risk because they do not

have access to health services and recent immigrants are also more vulnerable due to the migratory flow (26, 30, 46). In that regard, there is a discrepancy regarding the time it takes the acculturation process; some studies claim that it takes five years and others said that eleven years (33, 47).

One of the reasons for vulnerability in the immigrant community is the inaccessibility to health services. The barriers to access the health services are: language difficulties, cultural differences, the fear of losing their job if they miss the work in order to go to health services, the ignorance of the services in which they can be assisted, the cost of the displacement and the poverty (22, 24, 31, 32). As a result of the above facts, immigrants would consider switching to another job with better working conditions.

In relation to immigrant women, they often emigrate to accompany their partner instead of emigrating by their own decision. They have to deal with gender differences, for example, women have lower salary than men. They are much more susceptible to occupational risks and they often suffer from mental disorders and cancer. Finally, they often face inequality in domestic tasks (23, 24, 28).

It needs to be mentioned that there are high rates of unplanned pregnancies in the immigrant community and they do not have access to reproductive health services, specially undocumented immigrants (29, 48).

It is estimated that over 2 and 2.7 millions of persons are trafficked and although it affects to both sex, it is more frequent in women. They often experience physical and sexual violence, abuses and exploitation. All of this may lead to suffer post-traumatic stress disorders, somatic disorders and sexually transmitted diseases (25).

Nevertheless, situations of violence or abuse are not always related to trafficked women (31). In the sex industry, there are many abuse cases. Women who work in this labour sector claim that they usually suffer from sexual and physical violence and clients take advantage of women's helplessness to coerce them. In one of the qualitative studies included in this review, interviewed women of the sex industry affirm feeling unprotected from policy and they are concerned about their health. However, they choose to work in the sex industry because the salary and the working day are better than in other labour sectors (29).

Limitations of the review

This study has some limitations. First, original and full-text studies have been included, excluding those which were not written in Spanish or English. Moreover, the literature search has been limited to published studies of the past five years. Hence, it is possible that there may exist studies that are not included in our review but they mention immigrants' working conditions.

A secondary limitation is the heterogeneity of the methodology used in the included studies. The reviewed studies have different sample size, methodological approaches and recruitment methods. Furthermore, we have included some systematic reviews in our study and this type of reviews are often biased because they compare very different studies and they cannot generalize their findings to a larger population. Nevertheless, general conclusions have been made providing the most up-to-date evidence in this topic of knowledge.

Conclusions

The findings of this study suggest that immigrant community is more likely to encounter unsafe labour conditions, due to the lack of adequate occupational health safety measures, the immigration process and ethnocultural differences. All of this results in a deterioration of occupational health and, as a consequence, a greater impact on physical, emotional and social health.

After having reviewed studies, we concluded that there is a lack of information in the literature about how and who could prevent this situation of vulnerability in the immigrant worker community. For that reason, we strongly believe that there is needed for further investigation to better understand the roles played by occupational health nursing in immigrant workers' health.

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Table 1: characteristics of the included studies.

Author	Year/ Country	Method	Objectives	Results	Characteristics of the participants	Interventions of the studies
Bener	2017/ Turkey	Cross-sectional study	To identify the health status, living conditions, occupational accidents and the access to health services of immigrants in Qatar.	Immigrants suffer from health problems due to their working conditions. Only 20% of immigrants have access to health services.	1186 urban and semi-urban migrant workers (564 females and 622 males) with at least 12 months in Qatar. The median age was between 25-44 years.	Research and survey on the occupational health, hazards and working conditions.
Dodd et al.	2017/ Canada	Exploratory mixed study	To analyse the relation between “the healthy migrant effect” and the occupational health of workers.	The migrant flow has an impact on occupational health.	300 households surveyed (205 migrant and 1012 non-migrant adults). The average age of migrant workers was 28 years.	Semi-structured interviews using snowball and surveys using multi-stage random sampling.
Goldenberg et al.	2017/Canada	Qualitative and quantitative study	To describe the determinants of health and safety of immigrants in the indoor sex industry in Canada.	Interventions and policy reforms are needed to emphasize human rights and to decrease discrimination and stigma in immigrants.	44 immigrant female sex workers and owners working in the indoor sex establishments, the median age was 42 years old.	In-depth interviews and an ongoing community-based cohort study of street and off-street sex workers in Canada.

Mehmood et al.	2018/Qatar	Literature review	To analyse the occupational health of migrants workers and the lack of occupational risk prevention in Qatar.	Actions should be taken at work to prevent health problems.	Included studies in the review.	
Moyce and Schenker	2018/EEUU	Literature review	To compare the occupational health and work safety among immigrants and native workers.	Immigrant workers have higher risk of suffering health inequalities due to working conditions and cultural barriers.	Included studies in the review.	
Mucci et al.	2019/ Italy	Systematic review	To identify the main occupational risks and occupational diseases of immigrant workers.	There exists a high prevalence of work hazards because of unfavourable working conditions.	Included studies in the review.	
Pocock et al.	2016/ Canada	Systematic review	To explore the occupational health, accidents and violence in male immigrants trafficked for different sectors.	Interventions are needed to protect immigrants from abuse and occupational risks.	Included studies in the review.	
Ronda et al.	2014/ Spain	Literature review	To analyse the relation among working conditions	There is a higher incidence of health problems related to	Included studies in the review	

			and their effects on health in immigrants working in Spain.	work, precariousness and injury accidents in immigrant workers.		
Ronda et al.	2019/ Spain	Cohort study	To identify whether immigrant workers are more vulnerable to suffer occupational risks.	Immigrants are more vulnerable to exposure to occupational risks.	306 migrant workers from Colombia and Ecuador with at least one year of work experience in Spain and a control simple of Spanish-born workers.	Participants were recruited through key informants and they were interviewed in their homes.
Simkhada et al.	2018/Nepal	Secondary analysis	To analyse the health problems of female migrants working in Asia.	A significant proportion of female migrants have experienced health problems due to working conditions.	1010 female returnee migrants registered with an emergency shelter in the period from 2009 to 2014 in Nepal, with a median age of 31 years.	Interviews using a standard questionnaire.
Sterud et al.	2018/ Norway	Systematic study	To know the working conditions and occupational health of immigrants in Europe and Canada.	The immigrant community have worse working conditions than native workers.	Included studies in the review.	
Yanar et al.	2018/ Canada	Qualitative study	To analyse the experience of recent immigrants and refugees looking for their first job.	Immigrants are a vulnerable group because of inadequate safety measures and the scarce of risk prevention policies.	110 newcomers and refugees in Canada, 73% had university training and 43% were under 35 years.	Focus groups included 4 to 10 participants and lasted between 60-90min.



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