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# Social Determinants of Health in Pregnancy, Postpartum and early Motherhood: the impact of Migration\*

## *Determinantes sociales de la salud en el embarazo, postparto y maternidad reciente: el impacto de la migración*

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### Abstract

The present investigation sought to establish itself as an interface between Public Health and Social Medicine. Its main purpose relied in assessing theoretical inequalities in access, utilization and quality of maternal health care in immigrant recent mothers and its interaction with social determinants of health. The underlying research plan was designed to explore specific clinical, individual and social determinants in maternal health (during pregnancy and postpartum). Another specific goal is the assessment of access, utilization and quality of the received care (adequacy and satisfaction of responses offered by the public health system), establishing a comparison between health status, perceptions and needs of immigrant and native women in the same conditions and motherhood stages. Data was collected in all reference hospitals and several civilian associations of Porto metropolitan area, to better reach the targeted population: recent immigrant mothers from the countries with the highest representation in Portugal at the date (Brazil, African countries of Portuguese speaking and Eastern European countries), as well as Portuguese women (for comparison). To accomplish the defined objectives, three studies were performed using data obtained in all defined backgrounds, following different methodological approaches and designs (qualitative and quantitative strategies).

**Key words:** Equity in Healthcare, Maternal Health, Migration, Pregnancy and Postpartum period, Social Determinants of Health.

### Resumen

Esta investigación buscó establecer una interfaz entre Salud Pública y Medicina Social. Su objetivo principal se basó en la evaluación de desigualdades teóricas en el acceso, utilización y calidad del cuidado a la salud materna en madres recientes inmigrantes y su interacción con los determinantes sociales de la salud. El plan de investigación subyacente fue diseñado para explorar determinantes clínicos, individuales y sociales específicos en salud materna (en embarazo y posparto). Otro objetivo específico fue la evaluación del acceso, utilización y calidad de la atención recibida (adecuación y satisfacción de las respuestas ofrecidas por el sistema de salud pública), comparando el estado de salud, las percepciones y necesidades de mujeres inmigrantes y nativas en las mismas condiciones y etapas de la maternidad. Los datos se recogieron en todos los hospitales de referencia y varias asociaciones civiles de Porto, para llegar a la población destinataria: madres recientes procedentes de los países con mayor representación en Portugal (Brasil, países africanos de habla portuguesa y países de Europa del Este), y madres recientes portuguesas (por comparación). Para cumplir los objetivos, fueron realizados tres estudios a partir de datos obtenidos en los orígenes definidos, siguiendo diferentes enfoques y diseños metodológicos (estrategias cualitativas y cuantitativas).

**Palabras clave:** determinantes sociales de la salud, embarazo y puerperio, equidad en la asistencia sanitaria, migración, salud materna.

### Summary

1. Introduction | 2. Maternal healthcare in Migrants: a Systematic Review | 3. Qualitative study | 4. Quantitative study | 5. Conclusions | References

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## 1. Introduction

Migration trends represent compelling development opportunities for the European Union against demographic aging (declining birth rates among indigenous women, being the migrants who contribute to the maintenance of fecundity rates, fertility and births). Migrants meet specific needs of the market labour, essential for sustaining the structural soundness of Europe, as well as continued economic and socio-cultural development (Caldas, 2007; Padilla y Miguel, 2009).

One of the noblest challenges affected by migration relates to the provision of universal and equitable healthcare, central accessibility and quality of services, regardless of gender, ethnicity or country of origin – health as a universal right. Health and accessibility to healthcare are keystones for social inclusion of immigrants, consisting one of the primary routes of access to citizenship and civil rights (Ingleby et al., 2005; Caldas, 2007; Dias y Rocha, 2009).

Portugal has shown strong commitment on improving the migrants' integration through a series of inclusive policies, favouring legalization and family reunification, presenting a framework of free access to health care (Fonseca et al., 2009; Martins et al., 2010). Nevertheless there are undeniable weaknesses in investigating these areas, as development of national research, comparative health indicators and strategies for concerted action in this area are needed (Martins et al., 2010).

The most recent waves of immigration, despite recent changes of trends in directions regarding the destination countries, unanimously show the feminization of migration and increasing participation of migrant women in European demography. Scientific evidence shows that immigrant populations have a higher risk of contracting infectious diseases such as tuberculosis, HIV / AIDS and hepatitis, as well as acute and chronic diseases, such as cardiovascular disease, diabetes and showing higher mortality associated to cancer when compared with indigenous populations (Rumbold et al., 2011). They also exhibit a greater risk of suffering from mental illness, including depression, schizophrenia and post-traumatic stress, as a result of specific psychosocial determinants (Bunevicius et al., 2009). These factors induce and cause an ascending vulnerability during pregnancy (psychopathological complications after delivery – e.g. postpartum blues, psychosis and depression (Canavaro, 2001; Bunevicius et al., 2009) – exacerbated by stressors associated with the migration process). In addition, European lines of research indicate that the morbidity associated with pregnancy, as well as some sexual and reproductive complications tend to be higher among immigrants. There is also evidence that the outcomes of pregnancy tend to be impoverished (losses shown in general state of health, with significant weight to public health), particularly the greater incidence of preterm and low birth weight babies (Carballo, 2009a). This population also has the worst health indicators associated with higher maternal, neonatal and infant mortality, spontaneous abortion, increased incidence of postpartum depression, negligible gynaecological follow-up and poor prenatal education. Thus, maternal and child healthcare should be handled with particular attention (Carballo, 2009a; Carballo, 2009b; Martins 2010). World Health Organization (WHO) alerts to the urgency in attempting to improve healthcare and social attention to vulnerable populations (e.g. women, migrants, children), especially in times of global economic crisis, where health impoverishment and inequalities tend to be more strongly exacerbated (Loureiro y Miranda, 2011).

According to WHO, investment and action on social determinants of health is the most effective way to improve the health of populations by reducing social inequities. Social determinants of health include the social structural factors reflected in social stratification, the mechanisms of resources redistribution, education, the basic conditions of life and work, the existence of social support networks and the availability and accessibility to health services (Martins, 2010). These theoretical dissimilarities are particularly serious, as revised, when associated with pregnancy condition, through the biological and inherent psychological surroundings constituting a greater risk, increasing the vulnerability of immigrant pregnant women, their children and their families.

Within this research, the leading purpose was to measure and comprehend several clinical and social determinants of health, interacting prenatally and postpartum, and how do these specific determinants of women's health relate with their access, use and quality of care during these periods. Special attention was devoted to evaluate and review the access, use and quality of healthcare in migrant population during pregnancy and postpartum period, with particular emphasis on how this interfered with maternal health indicators or outcomes. Additionally, the perception of immigrant women regarding the access, use and quality of care during pregnancy and early motherhood was assessed. Still regarding

women's perceptions, latter it was attempted to verify whether there were differences considering quality and appropriateness of care received between immigrant and native women (during pregnancy and postpartum). Furthermore, when concerning actual literature discussion about the impact of Migration in health, the aim was to enlighten its role as a social determinant of maternal health, as well as the impact of other social determinants (e.g. income, education level) in health status of migrant and home-grown women, by evaluating possible differences in obstetrical care (and outcomes). Finally, it was sought to examine if being a migrant increased the frequency of perceived stress, depression, impoverished mental functioning and perceived low social support at postpartum, even when adjusting for other variables of interest.

## **2. Maternal healthcare in Migrants: a Systematic Review**

An initial approach to the scientific work and state of art in the field of Migration and Health included a systematic review of literature, published in the past two decades. The main objective was to evaluate the access, use and quality of healthcare in migrant population during pregnancy and postpartum period, with particular emphasis on how this interferes with maternal health indicators or outcomes. The scientific literature reviewed was contained in the MEDLINE and SCOPUS databases. Searching for population based studies published between 1990 and 2012 and reporting on maternal healthcare in immigrant populations was carried out. A total of 854 articles were retrieved and 30 publications met the inclusion criteria, being included in the final evaluation. One of the central inherent aspects in this review study is related to the non-exclusion of qualitative studies per se, since we believe that these are essential in providing indications and sensitive information of extreme relevance from the perspective of users, which ultimately determine demand, access and effective use of available services. The majority of studies point to a higher health risk profile in immigrants, with an increased incidence of co-morbidity in some populations, reduced access to health facilities particularly in illegal immigrants, poor communication between women and caregivers, a lower rate of obstetrical interventions, a higher incidence of stillbirth and early neonatal death, an increased risk of maternal death, and a higher incidence of postpartum depression. Incidences vary widely among different population groups (Almeida et al, 2013a).

## **3. Qualitative study**

Literature shows that cultural differences tend to affect not only healthcare use but also the perceived quality of provided services. Through qualitative strategies (semi-structured interviews), the aim was to make an assessment of perceived needs and cultural challenges that potentially influence the subjective perceptions of the migrant population. Such perceptions can affect services' request and adherence to treatment and effectively achieving behaviour health advice. It was also intended to evaluate barriers and facilitators pre-specified in the literature about accessibility and use of healthcare in migrant populations that can contribute to negatively affect services medical quality. Additional purpose included to explore and clarify the role of migration in health: recent investigation trends have been highlighting the role of social determinants and experiences during illness. In this light, it becomes relevant to consider the contexts and conditions in which migrants live in order to understand their health behaviours, needs and beliefs that accompany the demand for healthcare services. Constructs linking poverty, socioeconomic status and education and their respective impacts in health status are key aspects for the comprehension and development of useful lines of research in public health. Thus, information was collected on length of stay in the host country, legal status, country of origin, language barriers, economic and socio-cultural conditions, income, living and working conditions, education level and perceptions about the quality of care and attention by health professionals (patients' satisfaction), involvement with civilian associations and social integration.

Thirty one participants were recruited in civilian associations and non-governmental organizations, where they received social and economic support. The sampling was purposive, gathered by a referral process, between November 2011 and February 2012. Pre-specified inclusion criteria included pregnant women and recent mothers living in Porto and its metropolitan area, with availability and interest in

participating in research. All women were of a low social-economic status: the purpose was to observe if migration played an additional impoverishment role in health, if low social-economic condition was maintained stable (migration as a social determinant of health?). Included immigrant women were born outside the national territory and have foreign parents themselves: Eastern European countries, Brazil and African countries of Portuguese speaking (most representative ethnic groups of the Portuguese immigration context, at the date). Results showed that misinformation about legal rights and inadequate clarification during medical appointments frequently interacted with social determinants, such as low social-economic status, unemployment, and poor living conditions, to result in lower perceived quality of healthcare (Almeida et al., 2013b; Almeida et al., 2014a).

#### 4. Quantitative study

A cross-sectional study was planned to evaluate possible differences in obstetrical care (and maternal health outcomes) between immigrant and native women where free healthcare is declared to be available to all during pregnancy, irrespectively of women's legal status. Another goal of this study was to compare the odds of stress, low social support, impoverished mental health and depression in immigrant and native women in the postpartum period.

Included immigrant women followed the previously presented definition and criteria (89 immigrant women included). All women (277 participants) were recruited through referral hospitals (Hospital de S. João, Centro Hospitalar de Vila Nova de Gaia e Espinho, Centro Hospitalar do Porto – Maternidade Júlio Dinis and Hospital Pedro Hispano). Approval was gathered during 2011 among Executive and Ethics Committees of all institutions. In all institutions, the Director of Obstetrics and Gynaecology was contacted and involved in the research project. The monitoring of consent, compliance and interest in participating in the study was made through this coalition.

A self-filling questionnaire was applied during previously scheduled home visits, allowing data collection about a number of relevant topics: demographic and social conditions (socioeconomic status, education level, income, employment status and household composition), lifestyles and health behaviours, gynaecologic, obstetric and general medical history, characterization of prenatal care and postpartum medical attention, symptoms and co-morbidities prenatally and postpartum, cultural health habits and practices (when applicable) and migration specific issues. Some health indicators advanced by the EURO-PERISTAT European study were also considered to explore, constituting a mean of identifying and assessing the intended determinants of health in migrants and Portuguese women (core, recommended and recommended for future research; e.g. indicators and recommendations in maternal health and health services, including prevalence of severe maternal morbidity, perineum trauma and postpartum depression, as well as distribution of timing for first antenatal visit); variables frequently associated with pregnancy and postpartum complications were also measured. Additionally, four specific validated scales were applied: Perceived Stress Scale (Cohen, Kamarck & Mermelstein, 1983; Pais Ribeiro, 2009) (1, 2), Satisfaction Scale of Social Support (Pais Ribeiro, 1999) (3), Mental Health Inventory 5 (Veit & Ware, 1983; Pais Ribeiro, 2001) (4, 5) and Edinburgh Postpartum Depression Scale (Cox, Holden & Sagovsky, 1987; adaptation and validation of Portuguese version: Augusto, Kumar, Calheiros, Matos & Figueiredo, 1996; and Areias, Kumar, Barros & Figueiredo, 1996) (6-8) after delivery (following the proposed recommendations defined by the General Directorate of Health) (9). Obstetrical data were complemented and confirmed with information from the mother's pregnancy health book, a record of prenatal and intrapartum clinical data that is given to all pregnant women in Portugal. This evaluation occurred between 2-3 months postpartum, to establish a relationship of continuity between potential determinants and health outcomes.

A total of 277 answered questionnaires were obtained, 89 from migrants and 188 from native Portuguese women. Results show that migrant women were more prone to have their first pregnancy appointment after 12 weeks of gestation (27% vs. 14 %,  $p=0.011$ ), and to have less than 3 prenatal visits (2% vs. 0%,  $p<0.001$ ) but no significant differences were found in overall number of appointments or attendance of parental classes. Urinary infections and placental abruption was more common in Portuguese women. Migrant women were more likely to have a cesarean section (48% vs. 31%,  $p=0.023$ ), a perineal laceration (48% vs. 12%,  $p<0.001$ ), and postpartum hemorrhage (33% vs. 12%,  $p<0.001$ ). No significant differences between the groups were found in the prevalence of preterm delivery, low-newborn

weight and fetal malformations. Migrants were more likely to be unsatisfied with the support of administrative staff and doctors during pregnancy (Almeida et al., 2014b). Additionally, data showed that migrants had an increased odds for low social support (OR=6.118, 95% CI=[1.991; 18.798]), and for developing postpartum depression (OR=6.444, 95% CI=[1.858; 22.344]), but this seems unrelated with high perceived stress and impoverished mental functioning after delivery

## 5. Conclusions

Migrants are often, at least initially, relatively healthy when compared with non-migrants in the host country (e.g. the healthy migrant effect). Nevertheless available data and numerous studies conclude that they tend to be more vulnerable to certain communicable and non-communicable diseases, occupational hazards, poor mental health, maternal and child problems (Carballo, 2009a; Carballo, 2009b; IOM, 2011; Gushulak et al., 2010; Rechel et al., 2013). Migrants moving from a low-income to a high-income country often move from a society in an earlier phase of health transition (epidemiologically) to one in a more advanced phase. In host countries, they are prone to find a declining risk of communicable diseases (attributable to improved hygiene, environmental conditions and health services), but an increasing risk for chronic diseases associated with the adoption of unhealthy lifestyles and behaviours, towards acculturation and/or adaptation and integration (Rechel et al., 2013).

Minorities frequently have less access to care, receive lower quality care and have poorer health status than natives, despite several European efforts that intent to guarantee free access policy to healthcare in some countries. Undocumented migrants face the greatest problems in accessing health services and are more prompt of being exposed to the worse working conditions and high-risk living environments (Bophal, 2007; Rechel et al., 2013). Information about immigrants' health in Europe is inconsistent, as most health information systems are generally not designed to identify people by migration status, making the assessment of health disparities a very difficult task.

Migration itself is frequently a process that increases vulnerability to physical and mental stress and illness. This can lead to health disparities among racial and ethnic groups if the National Health System is not organized to embrace the concept of equity. Therefore, access to healthcare and its quality are two prominent policy concerns at interstate level, and improving equity of services provision needs to be based in further sensitive research in order to become widely implemented. As revised, these theoretical dissimilarities are particularly serious when associated with pregnancy condition, through the biological, social and inherent psychological surroundings constituting a greater risk, increasing the vulnerability of immigrant pregnant women, their children and their families.

The main concern and contribute of this thesis was to explore this complex and delicate theme, by bringing for reflection the role of social determinants of (pregnancy and maternal) health and its relation with Migration (as it was been extensively unmapped). Thus, the initial research question intended to identify the main clinical and social determinants of health (reproductive, general, mental) in immigrant and native women, prenatally and postpartum, and how do these specific determinants of women's health relate with their access, use and quality of care in the defined periods.

Access to health services, as a basic human right, presents huge differences within European countries considering national asylum policy regimes, the attribution of long-term residence status, citizenship and allowance of families' reunification, with consequences on accessing health and social services in general. Many countries in Europe are restricting entitlements to health services in an attempt to discourage the entry of new migrants (e.g. the case of Spain) (Ingleby, 2012; Rechel et al., 2013). However, some countries in southern Europe that have seen major immigration during the past two decades, such as Italy and Portugal, offer better coverage for undocumented migrants than do more wealthy countries in central and northern Europe with longer immigration histories (e.g. Germany, Sweden, United Kingdom) (Rechel et al., 2013; Urquia et al., 2012).

Despite Portugal's sustained commitments towards improved integration of immigrants through legislation and funding, the present studies identified some inadequacies related to aspects that are generally not covered by the law or that are derived from an erroneous interpretation of the latter. Persons who contact immigrants in their access to healthcare seem frequently unaware of specific accessibility legislation.



Through data triangulation of the results obtained from the 3 conducted studies, several conclusions could be established. When concerning the impact of Migration, migrants showed higher rates of complications in pregnancy and postpartum, less prenatal attention, suboptimal care, more miscarriages and maternal morbidities in all studies. Regarding social determinants' analysis, both the systematic review and the qualitative study showed that immigrants had more frequently lower educational levels (especially African women), lower incomes, worse working conditions, and are more often exposed to underprivileged environments and to social exclusion.

Considering accessibility, use and quality of care, even in settings where healthcare is "free" for all women during pregnancy, immigrants are more prompt to late booking for antenatal care, no prenatal care and fewer prenatal visits, higher cesarean section rates and more intrapartum complications. The reasons for this include evidenced barriers in accessing healthcare facilities (e.g. language barriers, unfamiliarity with NHS and health rights, gaps in health literacy, social exclusion and discrimination), resulting in suboptimal attention and higher incidence of adverse outcomes. Analyzing interaction with healthcare facilities, difficulties in communication were found to be potentially dangerous - beyond language barriers, ineffective communication between the care giver and the patient hinders clinical trust and affects future utilization of health services. Cultural and ethnical differences and expectations must be considered. Healthcare depends not only on accessibility but especially on social opportunities - equitable public health action must provide individuals and groups the equal opportunity to meet their needs, which may not be achieved by providing the same standard of care for all. Migrants were also more likely to be unsatisfied with the administrative staff and doctors' support in prenatal visits.

There is a need to change the focus from accessibility of immigrant women to healthcare, which seems to be largely guaranteed in Portugal, to ensuring the quality of care. However, this change of focus should be performed with caution considering current social changes in Europe in a context of economic crisis (in some countries migrants' access to health is a lost reality, and turns out to be very important to evaluate the applicability of this concept). Special attention needs to be given to the most vulnerable populations in order to improve healthcare.

The results show that migrants have increased odds of having low social support and developing postpartum depression, but migration seems unrelated with high perceived stress and impoverished mental functioning after delivery. As socioeconomic and subjective individual experiences are assuming greater roles in health, they must be urgently integrated into medical care in order to re-establish social justice.

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