Assessing maternal healthcare inequities among migrants: a qualitative study

Avaliando desigualdades de saúde materna em migrantes: um estudo qualitativo

Evaluación de las inequidades en salud materna entre los inmigrantes: un estudio cualitativo

> Lígia Moreira Almeida ^{1,2} José Peixoto Caldas ^{2,3} Diogo Ayres-de-Campos ^{1,4} Sónia Dias ⁵

Abstract

¹ Faculdade de Medicina. Universidade do Porto, Porto, Portugal. ² Faculdade de Psicologia e Ciências da Educação, Universidade do Porto, Porto, Portugal. ³ Iberoamerican Observatory of Health and Citizenshin. Porto, Portugal. ⁴ Departamento de Obstetrícia e Ginecologia, Centro Hospitalar São João, Porto, Portugal. ⁵ Instituto de Higiene e Medicina Tropical, Lisboa, Portugal.

Correspondence

L. M. Almeida Instituto de Saúde Pública, Faculdade de Medicina, Universidade do Porto. Rua das Taipas 135, Porto 4200-135, Portugal. ligia_almeida@fpce.up.pt

Considering pregnancy and motherhood as periods of increased vulnerability in migrant women, to characterize the healthcare provided to this collective, we sought to identify and understand patterns of satisfaction and demand of maternal and child healthcare, assessing women's perceptions about its quality. The study followed a qualitative methodology (semi-structured interviews) for collecting and analysing data (content analysis) and was conducted in Porto, the second largest city of Portugal. Participants were 25 recent immigrant mothers from Eastern European countries, Brazil, Portuguese-speaking African countries and six native Portuguese recent mothers (for comparison), contacted through social associations and institutions. Data suggests that 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 if care to all.

Equity in Health; Health Inequalities; Maternal Welfare; Social Vulnerability; Migration

Resumo

Considerando a gravidez e a maternidade como períodos de maior vulnerabilidade em mulheres migrantes, a fim de caracterizar os cuidados de saúde prestados, procurou-se identificar e compreender padrões de satisfação e procura de cuidados de saúde materna e infantil, avaliando as suas percepções sobre a qualidade deles. O estudo seguiu uma metodologia qualitativa (entrevistas semiestruturadas) para a coleta e análise de dados (análise de conteúdo) e foi realizado no Porto, a segunda maior cidade de Portugal. As participantes foram 25 mães recém-imigradas do Leste Europeu, Brasil, e países africanos de língua portuguesa e seis Portuguesas (para comparação), contatadas pelas associações e instituições sociais. Os dados sugerem que a saúde depende não só da acessibilidade, mas especialmente das oportunidades sociais. Ações equitativas de saúde pública devem proporcionar aos indivíduos e grupos oportunidades iguais para satisfazer as suas necessidades, que podem não ser alcançadas fornecendo o mesmo tratamento padrão para todos.

Equidade em Saúde; Desigualdades em Saúde; Bem-Estar Materno; Vulnerabilidade Social; Migração

Introduction

Equity in healthcare has been demonstrated as a relevant factor in reducing disparities in health ¹. Equity in health depends not just on overlapping social factors that affect each other (e.g. social gradient, stress, social exclusion, education, unemployment, social support, ethnicity, among others) ^{2,3}. It relates to ethics and moral values of social justice, implying preparedness from public health policies and actions to address and bridge potential inequities created by the conditions that adversely affect the health of individuals and communities ⁴.

The scientific literature indicates how often migrants tend to be the most vulnerable population groups, especially women of childbearing age, that regularly show greater foetal and neonatal mortality, and more complications during pregnancy and postpartum 5,6,7,8. Their health indicators are frequently worse, which is explained by interactions between socio-material deprivation factors aggravated by stressors involved in the migration process. Along with issues related to health literacy concerning pregnancy and its assistance, migrants often obtain poorer medical follow-ups 7,8,9,10,11. Additionally, migrants' expectations about healthcare received during pregnancy commonly differ and conflict with the normative procedures of the host country 12,13,14. In a moment of current intense reconfiguration of the European societal structure, due to the global economic crisis, Portugal is officially no longer a host country for immigrants 15 and has once again become a country that principally exports human capital. This transition is contributing to an increase in the pre-existing vulnerabilities of populations that were already underprivileged, namely the immigrants who stayed.

To contextualize our study, we provide basic information on the structure of the National Health System (NHS) in Portugal, in order to allow a better comprehension of the potential challenges that migrants (and their Portuguese counterparts, as controls) may face when encountering healthcare services. The system is based on the concept of accessible care for all that need it. With a large number of local primary healthcare centres run by general practitioners, it establishes a mandatory first contact at this level, except in acute health conditions. Due to organizational limitations, not all individuals have an individually appointed general practitioner, and may therefore be seen by other similarly qualified doctors available at the time. Specialised appointments take place in public hospitals upon referral by general practitioners. Prenatal care in low-risk pregnancies is conducted in primary healthcare

centres, while there are national guidelines on high-risk features necessary for referral to specialized obstetric care ¹. It is worth noticing that Portuguese legislation contemplates free healthcare access during pregnancy, irrespective of the mother's documentation status.

Our goal was to verify whether there are differences regarding women's perceptions about quality and appropriateness of care received between immigrant and native women, during pregnancy and postpartum. We believe that the users' perspective still offers a sensitive quality indicator of received care ^{13,16,17,18}, and helps to identify possible gaps emerging from budgetary restructuring in public health policies. Our study was conducted in Porto, the second largest city of Portugal.

Methods

This article relies on qualitative data. We believe that health research is much more robust if exploring the personal and subjective aspects of the user's perspective, essential for a global understanding of the social reality, which have real impacts in health status, care seeking, regular monitoring and treatment adherence.

Given the characteristics of the target population, the option for semi-structured interviews as the preferred technique for data collection, proved to be the most suitable methodology, since it only required a single meeting and guaranteed absolute anonymity for each participant. This aspect is relevant since the status of some of the mothers interviewed was as undocumented immigrants. Other strategies (e.g. focus groups, in-depth interviews, unstructured interviews) would imply not only longer meetings, but also the possibility of more than one interview session. Although other strategies would provide extremely valid and richer information, they are not always applicable and adjustable either to the time constraints of working migrants or to concerns associated with multiple contacts with illegal migrants 19,20.

We designed a specific protocol study in order to understand the role of being from a foreign country: in perceiving quality and adequateness of care. We also evaluated possible differences in medical attention and health outcomes between nationalities.

Participants: sampling and recruitment

A total of 31 participants were recruited, all of low social-economic status, receiving support from civilian associations working with migrants and Portuguese individuals (NGO's) and/or from governmental institutions with the same aim. Approval for conducting the study was obtained from the Governing Boards and from the Ethics Committee of all institutions involved. The participants' recruitment process was initiated through contacts and meetings with the Governing Boards of the institutions and associations, after their approval of the study protocol. The interviews took place in the contacted institutions' locations, after study approval. The participants were recent mothers born in Portuguese-speaking African countries (11), in Eastern European countries (seven), in Brazil (seven), and six were Portuguese natives (acting as a comparison group, recruited in the same institutions), notified about the study and asked to participate in it. Participants were recruited between November 2011 and February 2012 if they met the following inclusion criteria: recent mothers (immigrants from the most representative countries residing in Portugal, and natives) preferably during the first year of a child's life, living in the metropolitan area of Porto. It is usually in the first months of life that children require more attention, from a psychosocial point of view, because of the need to assess the achievement of a series of developmental stages 5,21,22. This period is also critical for the mother's emotional health and her adaptation to motherhood 23,24.

Procedure

Semi-structured interviews with similar guidelines were conducted on all women (migrants and natives), evaluating the perceived needs and cultural challenges that potentially influence the perceptions of the migrant population 13, and that determine health demands, treatment adherence, effectiveness of health advice and inequalities in health 20. Interviews took place in the association or institution where the women were recruited and its duration was about 25 minutes. They were conducted by a well-trained researcher, graduated in psychology. The methodology and general objectives of the study were explained to all participants. Authorization for audio recording of the interviews was requested, and informed voluntary consent was registered. No refusals were disclosed.

Analysis of data

Qualitative content analysis and categorization of emerged information were performed to make a systematic analysis of collected data, which involved transcription of interviews and field notes ²⁵. Subsequently, a comprehensive interpretation of the resulting information was performed. Initial categories were created (corresponding to the questions made) and later evolved with the analysis of new data (clustering of information). Some initial questions presented at the guidelines included: *"Have you* detected any issue in accessing family planning services at health centres?"; *"How would you* evaluate the healthcare you received during last pregnancy surveillance? What about the healthcare provided to your new-born?"; or *"Did you* notice any problem in attendance and / or in the connection established with health professionals? Please explain in what way, and what were the consequences (if they existed)?".

To maintain confidentiality, socio-demographic data were entered into a coding sheet, and the name of the participant replaced by an alphanumeric code. Quotes were chosen from women's dialogues to best exemplify the main emerging themes.

Results

Socio-demographic characteristics of participants

Participants were between 20 and 45 years old. African women presented basic to medium levels of education (frequency of four to twelve years of school), and almost half were still in the process of legalization. Most women from Eastern European countries completed higher education, and had regular documentation status. Most Brazilian women reported medium level education and legalized documentation. Portuguese women also had basic to medium level of education. Length of stay in the country varied between two and 20 years: five African women were residing in Portugal for more than 12 years, five Eastern European women had lived in Portugal for at least 10 years, and five Brazilian women had been in the country for 7 years or less. It is noteworthy that 12 participants were unemployed at the time of the interview.

The collected information emerged in three major themes: (a) maternal and child healthcare (i. pregnancy and postpartum; ii. baby follow up; iii. family planning and contraception); (b) strategies for managing difficulties; (c) quality and consequences of care by health professionals.

Maternal and child healthcare

Women were requested to express their experiences concerning medical appointments received during pregnancy, as well as monitoring services throughout the postpartum period and subsequent follow-up of the baby.

Pregnancy and postpartum

We observed that pregnancy surveillance is one of the clinical activities that was met with greater satisfaction, particularly among Portuguese women. Nevertheless, this satisfaction was rarely found for medical attention at postpartum, where the women (irrespective of nationality) reported a significant lack of social and affective support, reporting sentiments of abandonment by the NHS.

Despite generalized satisfaction, most immigrants report to have had severe reproductive disorders in previous pregnancies, whether they occurred in their country of origin or in Portugal.

African women consistently reported more complications during pregnancy, most of them already in Portugal: more infection, hypertensive disorders and gestational diabetes as well as more miscarriage, perinatal and neonatal death in previous pregnancies. "[my baby] *had a problem with blood... I don't know why he died because he was born well. He was in the hospital for two months and died. No one ever explained to me*" (African participant).

Brazilian women tend to report high satisfaction with care received during pregnancy. The difficulties they most identified refer to some unfamiliarity from physicians and administrative professionals about pregnant women's free access to healthcare, if undocumented. This has resulted in poor and later prenatal care for some Brazilian women. "In early pregnancy, I went to the doctor and she made my access a bit difficult because she said I had no right to [receive medical care] since I had no social security number" (Brazilian participant).

Women from Eastern European countries claim to be very satisfied with pregnancy consultations especially when they occurred in their hospital of reference, in specialized services. Since most of them are having their second child in the host country, they experienced some progresses over the years concerning medical attention, referring to the humanization of contact with health professionals, and have developed comprehensive skills about the functioning of the NHS. "During the first pregnancy follow-up it was complicated because I had no family doctor. The second was very easy, and I liked [the healthcare services] a lot" (Eastern European participant).

Baby follow-up

Regarding medical care for infants, after being discharged from the hospital, several immigrants report difficulties in attaining sufficiently clear medical consultations. Those discourses were not found among African or Portuguese women, unless a family doctor was not allocated. On the other hand, Brazilian and Eastern European women report widespread dissatisfaction with baby follow-up when it was carried out in primary healthcare (by general practitioners), since in their countries paediatric services are provided at this level of assistance. This often triggers a higher request for Hospital emergency services. "At the Health Centre there wasn't a paediatrician. So my daughter grew up without consulting a paediatrician! ... only the family doctor could request a consultation, I had no family doctor!" (Eastern European participant). "The family physician is ... well, is good, but not for children!" (Brazilian participant).

• Family planning and contraception

Family planning services are counselling and information services regarding all aspects of sexual and reproductive life of a couple, since the onset (planned or consummated) of sexual activity. They focus on health prevention and protection against diseases (explicitly through free provision of contraceptives) and women's biophysical preparation for pregnancy (e.g. planning early intake of folic acid). We observed that not all women are aware of the advantages of those services but, irrespective of nationality, the ones who use them are extremely pleased. We only identified one case of an African woman that reported a coercive attitude from the physician that allegedly attempted to impose on her a subcutaneous implant. "How can I put one thing if I don't know what it was? She didn't even ask me for my opinion; she didn't ask me if I wanted it! The answer she gave me was 'Oh, it's for you not to become pregnant again'" (African participant).

Nevertheless, the patterns of receptiveness and use of contraception were highly variable among women of different nationalities. During the interviews, we observed some cultural specificities among Portuguese and migrant women, and we would like to highlight the approach of Eastern European women regarding medicalization overall. These women tend to have a widespread opinion that Western countries use too much drugs, arbitrarily and for all purposes. When concerning contraception, the same posture is detected: they use contraception more rarely, are mostly autonomous in their selection and often prefer condoms or skin adhesives. It is noteworthy that these women find contraception a highly private subject, demonstrating a significant sense of embarrassment and decorousness around it, and not all women felt comfortable discussing it. "For us it is not easy, we initially are very ashamed! In our country we do not talk, it's more intimate. I know people that took them home [birth control pills, condoms] and... just showed them, they didn't use them, you know?... bags of contraceptives as an exhibit in a museum! [laughs]" (Eastern European participant).

Strategies for managing difficulties

With regard to potential barriers identified by the study participants, we intended to gather information about the level of proactivity and action oriented towards migrant and Portuguese women's strategies to overcome difficulties.

Among Brazilian women, only one woman mentioned that she looked for information about her rights when facing a setback in accessing maternal healthcare. We found Portuguese women at the same level of action: despite knowledge about the functioning of the NHS, Portuguese women of low socioeconomic status only carry out verbal complaints. In very serious situations or circumstances with a high probability of medical failure, they tend not to pursue official channels. "When removing the placenta, doctors didn't completely eliminate the remains... And that made me develop an infection that forced me to stay hospitalized for a few days. I wasn't pleased ...but I didn't complain" (Portuguese participant).

Eastern European women, as the most highly educated, were more prompt to be informed and to request medical evidence about their health, frequently claiming to have a shared decision about therapeutic resolutions. Those women report having major initial difficulties, not only being uninformed about the functioning of the NHS, but mostly with regard to key language barriers that they actively try to attenuate with the length of stay.

We also observed that some African women are likely to reveal language barriers when considering healthcare use and full comprehension about medical appointments that were not self-identified previously. "...our Portuguese is different from here, and she [the administrative worker] spoke in a way that I didn't understand..." (African participant).

Quality and consequences of care by health professionals

As evidenced above, Brazilian and African women assess very positively the healthcare provision that they received. However they tend not to identify potential sub-quality experiences, not relating them to subsequent adverse consequences. Some experiences emerged that compromise the quality of services received, screening obstacles posed by some health professionals (specifically in the content of the consultations). "At the Health Centre I was told that I could not do my pregnancy follow-up there, because I changed my address. I was already three months pregnant! …in the new Health Centre, I wasn't accepted… We had to go to the hospital" (African participant).

We observed a more assertive position among Eastern European women when confronted about self-perceptions concerning quality and consequences of care. Several women pointed to the language barrier as a crucial personal gap. Regarding health professionals, these women report that many physicians demonstrate thoughtfulness and tolerance, but some confine themselves to a position of expertise, not looking to actively communicate with the user. This often leads to extremely harmful situations for these women, especially in a period of initial stay in the host country. "My family doctor, she didn't ask me for a few tests, and I had a blood infection during pregnancy, which was not detected, I had a vaginal delivery and infected the baby ... She was born and died nine hours later" (Eastern European participant).

Eastern European women also argue that doctors frequently seem unprepared to answer well established questions by informed patients, not appearing to be comfortable in providing technical information or discussing clinical procedures with them.

Discussion

We can anticipate that equity in healthcare depends not only on accessibility but especially on social opportunities. Social risk is widely associated with socio-material deprivation and tends to be reflected in social exclusion to goods and services, including health and education ^{1,2,26}. 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 care to all.

Scientific literature and medical history have been showing that the non-mastery of the dominant language determines less adequate treatments and may result in increased risk of health complications ^{4,26}. Analysing our results, inequities in maternal health concerning immigrants were particularly observed in pregnancy outcomes, dramatically aggravated in previous pregnancies, both for the mother and the baby. We will further explore some examples.

Considering African women who consistently reported more complications during pregnancy, two women in our sample have lost a child in the first three months of life (while staying in Portugal) and one woman reported having a previous stillbirth at seven months of pregnancy in Cape Verde, evidencing an unquestionable higher risk profile. Nonetheless, they are often satisfied with medical care, demonstrating a largely passive attitude in the approach to healthcare professionals. This inaction tends to result in a perpetuation of unawareness and unaccountability for their health, unless it is sensitively counteracted by the healthcare professional.

Women from Eastern European countries demonstrated a more proactive attitude, claiming for themselves a substantial role in therapeutic decisions. However, personal life trajectories and individual experiences often put them in situations of poor pregnancy outcomes and at higher risk of medical lapses. One Russian woman in our sample reported a medical fault (due to language/communication barriers) severe enough to cause an early neonatal death; one Ukrainian woman expressed that she never felt comfortable with medical follow-ups here because doctors were unaware that she was radioactively contaminated by living near Chernobyl. They never asked her for her medical history, and she has always experienced her pregnancies with anxiety. In the absence of a degree of intimacy between doctor and patient, she opted not to attend prenatal care. She carried out her first ultrasound one month before the baby was born.

The failure to identify certain subliminal barriers (which are not explicit, but subtended - health beliefs and behaviours affecting the use of healthcare facilities, linguistic and social barriers, impoverished socio-demographic surroundings) to equity in clinical practice may result in negative health consequences. They suggest gaps not only in cultural competence by some health professionals but, ultimately, professional limitations in establishing communication and a proper understanding in approaching health behaviours and expectations (health literacy) in immigrants. In fact, health professionals must be alert, not letting themselves be deceived by apparent satisfactory health status (e.g. health migrant effect). Applying equal healthcare standards may constitute blind clinical tactics in the absence of comprehensive communication between doctor and patient.

Patients' perspectives are essential elements to assess quality of maternal and child care and must be taken into account by policy makers and health professionals ¹⁷. We believe that good medical care needs to be an arrangement of clinical quality combined with proper communication, beyond mere access to services. The clinical relation between doctor and patient is the key factor to a successful therapeutic alliance, tackling background inequalities, encouraging compliance and additional differentiated care (if required) towards better therapeutic results.

Resumen

Considerando el embarazo y maternidad como los períodos de mayor vulnerabilidad para las mujeres inmigrantes, y con el fin de caracterizar la asistencia sanitaria, se buscó identificar y comprender patrones de satisfacción y demanda de salud materno-infantil, así como la evaluación de las percepciones sobre la calidad de los mismos. El estudio siguió una metodología cualitativa (entrevistas semi-estructuradas) para la recogida y análisis de datos (análisis de contenido) y se llevó a cabo en Porto, la segunda ciudad más grande de Portugal. Las participantes fueron 25 madres, inmigrantes recientes de países de la Europa del Este, Brasil, países africanos de habla portuguesa y seis nativas portuguesas (para su comparación), contactadas a través de asociaciones e instituciones sociales. Los datos sugieren que la asistencia sanitaria no sólo depende de la accesibilidad, sino especialmente de las oportunidades sociales. Las acciones equitativas de salud pública deben proporcionar igualdad de oportunidades a las personas y grupos para satisfacer sus necesidades, que no se pueden lograr al ofrecer una misma atención estándar a todos.

Equidad en Salud; Desigualdades en la Salud; Bienestar Materno; Vulnerabilidad Social; Migración

Contributors

L. M. Almeida participated in the collection, analysis and interpretation of the data, and in the preparation and write-up of the article. J. P. Caldas collaborated in the design, in carrying out the study and in writing the article. D. Ayres-de-Campos and S. Dias contributed towards the preparation, revision and write-up of the final version of the text.

Acknowledgments

This research was funded by the Fundação para a Ciência e Tecnologia, under the scope of the research project Health and Citizenship: Gaps and Needs in Intercultural Health Care to Immigrant Mothers (reference: PTDC/ CS-SOC/113384/2009). The authors would like to thank the valuable work of Catarina Casanova, specifically regarding collaboration in data collection. For all reports, the author declares to have had full access to all the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis. The author also affirms total disclosure of any financial conflicts of interest involving any of the co-authors.

References

- Machado MC, Santana P, Carreiro MH, Nogueira H, Barroso MR, Dias A. Iguais ou diferentes? Cuidados de saúde materno-infantil a uma população de imigrantes. Lisboa: Bial; 2006.
- 2. Marmot M. Social determinants of health inequalities. Lancet 2005; 365:1099-104.
- Bremberg S. Health inequities: concepts, measures and pathways. In: Hogstedt C, Moberg H, Lundgren B, Backhans M, editors. Health for all? A critical analysis of public health policies in eight European countries. Stockholm: Swedish National Institute of Public Health; 2008. p. 32-58.
- 4. Levy B, Sidel V, editors. Social injustice and public health. Oxford: Oxford University Press; 2006.
- Bunevicius R, Kusminskas L, Bunevicius A, Nadisauskiene R, Jureniene K, Pop V. Psychosocial risk factors for depression during pregnancy. Acta Obstet Gynecol Scand 2009; 88:599-605.

- Rumbold A, Bailie R, Si D, Dowden M, Kennedy C, Cox R, et al. Delivery of maternal health care in Indigenous primary care services: baseline data for an ongoing quality improvement initiative. BMC Pregnancy Childbirth 2011; 11:16.
- Carballo M. Communicable diseases. Lisboa: Instituto Nacional de Saúde Doutor Ricardo Jorge; 2009.
- Carballo M. Non-communicable diseases. Lisboa: Instituto Nacional de Saúde Doutor Ricardo Jorge; 2009.
- 9. Sosta E, Tomasoni LR, Frusca T, Triglia M, Pirali F, El Hamad I, et al. Preterm delivery risk in migrants in Italy: an observational prospective study. J Travel Med 2008; 15:243-7.
- Schutte JM, Steegers EA, Schuitemaker NW, Santema JG, de Boer K, Pel M, et al. Rise in maternal mortality in the Netherlands. BJOG 2010; 117: 399-406.

- 11. Reeske A, Kutschmann M, Razum O, Spallek J. Stillbirth differences according to regions of origin: an analysis of the German perinatal database, 2004-2007. BMC Pregnancy Childbirth 2011; 11:63.
- 12. Dias S, Gama A, Cortes M, Sousa B. Healthcare-seeking patterns among immigrants in Portugal. Health Soc Care Community 2011; 19:514-21.
- Dias S, Gama A, Rocha C. Immigrant women's perceptions and experiences of health care services: insights from a focus group study. J Public Health 2010; 18:489-96.
- Dias S, Severo M, Barros H. Determinants of health care utilization by immigrants in Portugal. BMC Health Serv Res 2008; 8:207.
- Estrela J, Machado R, Bento AR, Martins LA, Sousa P. Relatório de imigração, fronteira e asilo 2011. Oeiras: Serviço de Estrangeiros e Fronteiras; 2012.
- Ganann R, Sword W, Black M, Carpio B. Influence of maternal birthplace on postpartum health and health services use. J Immigr Minor Health 2012; 14:223-9.
- Jonkers M, Richters A, Zwart J, Ory F, van Roosmalen J. Severe maternal morbidity among immigrant women in the Netherlands: patients' perspectives. Reprod Health Matters 2011; 19:144-53.
- Malin M, Gissler M. Maternal care and birth outcomes among ethnic minority women in Finland. BMC Public Health 2009; 9:84.
- Bhattacherjee A. Social science research: principles, methods and practices. Tampa: University of South Florida; 2012.

- Silva S, Fraga S. Qualitative research in epidemiology. In: Lunet N, editor. Epidemiology: current perspectives on research and practice. Rijeka: In-Tech; 2012.
- Cepêda T, Brito I, Heitor MJ. Promoção da saúde mental na gravidez e primeira infância: manual de orientação para profissionais de saúde. Lisboa: Direcção-Geral da Saúde, Ministério da Saúde; 2006.
- 22. Chaudron LH, Szilagyi PG, Tang W, Anson E, Talbot NL, Wadkins HIM, et al. Accuracy of depression screening tools for identifying postpartum depression among urban mothers. Pediatrics 2010; 125:609-17.
- Davis E. Heart & hands: a midwife's guide to pregnancy and birth. 4th Ed. New York: Celestial Arts; 2004.
- Schetter C. Psychological science on pregnancy: stress processes, biopsychosocial models, and emerging research issues. Annu Rev Psychol 2011; 62:531-58.
- Bogdan RC, Biklen SK. Qualitative research for education: an introduction to theories and methods. 4th Ed. New York: Pearson Education Group; 2003.
- 26. International Organization for Migration. World migration report 2011: communicating effectively about migration. Geneva: International Organization for Migration; 2011.

Submitted on 14/Mar/2013 Final version resubmitted on 18/Jul/2013 Approved on 14/Aug/2013