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Assessment the Social Determinants of Health in Pregnant Women Referring to Mashhad Educational Hospitals in 2019

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Abstract

Background: *Being a mother is the sweetest experience of women in her life. Nevertheless, it may also prove unpleasant owing to a wide range of factors that put a mother's life and health at risk during pregnancy and delivery. The aim of the study was to identify the social determinants of health in pregnant women referring to Mashhad educational hospitals in 2019.*
Methods: *The research sample in this descriptive study comprises 1020 pregnant women who were monitored and visited at Mashhad educational hospitals. Data was collected by means of personal and midwifery application forms and, subsequently, analyzed by SPSS®-v20 software. Significant level was set at 0.05.*
Results: *According to the results, the cases studied were confronted with social factors such as spouse unemployment (4.6%), spouse illiteracy (5%), personal illiteracy (5%), bad hygiene behaviors (10.5% with smoking habit), and drug abuse (2.2%). At the same time, 19% of the cases had no insurance coverage.*
Conclusions: *In addition to the common pregnancy and labor risks, pregnant women are challenged by issues such as poverty, unemployment, and illiteracy that significantly affect their life-quality as well as their ability to improve their health standards.*

Keywords: Health social determinants, Pregnant women, Educational hospitals.
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Introduction

Social determinants of health are the conditions in which people are born, grow, learn, live, work and venerate. These conditions may influence a wide range of hygienic, performance, and quality-of-life outcomes. Extensive studies are being carried out on determining the effects of psychosocial factors on maternal deaths and disorders. As to the rate of maternal mortality and chronic disorders, these efforts partly point to cardiovascular diseases and obesity as major factors, followed closely by drug abuse, chronic psychological disorders, and family violence as the main precursors of high psychological stress that may, in some cases, even lead to death.[1]

Approximately 830 deaths result daily from preventable pregnancy and childbirth complications worldwide, of which 99% occur in the developing countries.[2] It is estimated that 20 women develop maternal complications per death.[3] According to 2015 figures, approximately 303,000 women lost their lives due to pregnancy and childbirth complications.[4] Reducing the rate of maternal mortality is part of the millennium goals. To this end, it is hoped that, by the year 2030, the target maternal mortality rate (MMR) declines to two-third of the figure recorded for 2010. It is, therefore, anticipated for the maternal mortality ratio in our country to reach 10 deaths per 100,000 live births. This requires the implementation of an effective device for identifying the shortcomings of health and maternal care system.[5] The world health organization (WHO) has proposed strategies for improving maternal health. They include equal accessibility to quality fertility, maternal, and newborn health services, the comprehensive coverage of these services, careful investigation of causes related to maternal deaths and maternal and fertility disorders and their related disabilities, as well as the enhancement of health systems to best address the needs and priorities of female population.[6]

Maternal deaths resulting from pregnancy and delivery complications are an important indicator of a country's scale of development. The index of development was selected with respect to the role that varying economic and social factors play in reducing or increasing this rate.[2] With no doubt, the index is a function of the level of female literacy, rural road networks, access to midwifery and pregnancy emergency services, treatment costs, availability of telecommunication networks, family income and so forth.[7] In other words, the health of a pregnant mother is the objective and upshot of numerous programs, especially those involving routine and emergency cares during pregnancy and in the prenatal and postpartum periods. Thus, it can be assumed that every maternal death is the consequence of an overall failure of the programs reaching their ends.[4]

As newly-defined by WHO, health and hygiene refer to conditions of normal health as well as the emotional, psychological, and social well-being of the individual. On this basis, the social determinants of health depend on the life-time working and living social conditions of every individual. It is, now, evidently clear how related health and hygiene inequality and illnesses are to social factors.[8]

On the other hand, a huge gap exists between the high and low-income groups of females from rural to urban districts within each country and also from one country to another. Poverty, lack of knowledge and awareness, and culture are among the potential factors that affect the reach of women for health and hygiene care. Generally speaking, place of residence (urban vs. rural, capital vs. non-capital, and inter and intra-regional group differences), race, profession and income vulnerability, gender, culture and values, literacy, social capital, and the socioeconomic conditions are among the several factors causing inequality and injustice in the health sector.[9]

Statistics also show a higher rate of maternal mortality prevailing in rural and less-privileged communities.[5] This is to say, that life-time social and economic conditions affect the psychological health of an individual. Those exposed to long-term social and economic deprivation and its consequences, such as low family savings, low level of literacy, unsecured job, unsuitable dwellings, etc., are at greater risk of growing psychological diseases, foremost depression.[10]

Studies have demonstrated that women are twice more prone to depression than men. The physical and psychological changes women undergo during fertility makes them more vulnerable than men. Pregnancy and post-pregnancy period are accompanied by significant psychological and physiological alterations that often lead to pathological changes and psychological disorders.[11] For example, post-partum depression (PPD) which is a serious psychological and behavioral disorder with a 5-40% prevalence from one community to another. Over 12.5% of female visits are due to psychological complications resulting from depression. Meantime, unsuitable pregnancy conditions such as malnutrition, smoking, inappropriate use of medication, lack of sufficient exercise, stress, and poor prenatal care may lead to the abnormal development of the fetus which, in turn, puts the individual's future health at risk.[12] On this basis, the present study was carried out with the aim of determining the effect of social factors on pregnant women.

Materials and Methods

During the present study, carried out in the May-mid August 2019 period, 1020 Farsi (Persian)-speaking Iranian pregnant woman who had referred to Mashhad educational hospitals for care and monitoring were selected by means of simple and accessibility sampling method and by use of a personal and a midwifery application form. Both forms covered the demographic features of the research unit, each containing 19 questions. The applications were filed by the research officials during an interview.

Prior to attending any of the 5 educational hospitals of the city and selecting the qualified participants from among those who had referred for care and monitoring, researchers were to obtain a letter of recommendation from the Faculty of nursing and midwifery and submit it to the vice-chancellery of health of Mashhad university of medical sciences, as well as, the presidents of the educational hospitals concerned. Upon the consent of the research unit, interviews were held to fill out the personal and midwifery applications. Verification of data was done by comparing the collected data with the contents of the research unit's file. Tools used in this study were content validated and the reliability of the personal and midwifery applications was also confirmed based on their simple straight forward contents that were commonly used in similar studies and had met the approval of supervisors and preparation advisors.

The data in this research were both quantitative and qualitative. Descriptive statistics were employed for data analysis. Collected data was coded and fed to a computer for analysis by means of SPSS®-v20 statistical software. Mean, standard deviation, and abundance distribution table was used as statistical indicators for describing personal and midwifery data.

Results

1020 pregnant women with a mean age of 28.15 ± 6.40 and ages ranging from 13 to 47 participated in this research. The mean age of their spouses was 32.36 ± 6.47 and their ages ranged from 18 to 57. 71% of the woman had a previous pregnancy records of which 90.9% had given birth. Mean number of children of the participants was 1.13 ± 1.13 and ranged from 0 to 7.

Literacy was found with the highest occurrence in 2 groups of women and spouses with intermediary education (30.1 and 32.1 respectively). Results show that 5% of women and 5% of a spouse were uneducated (figure 1 and 2).

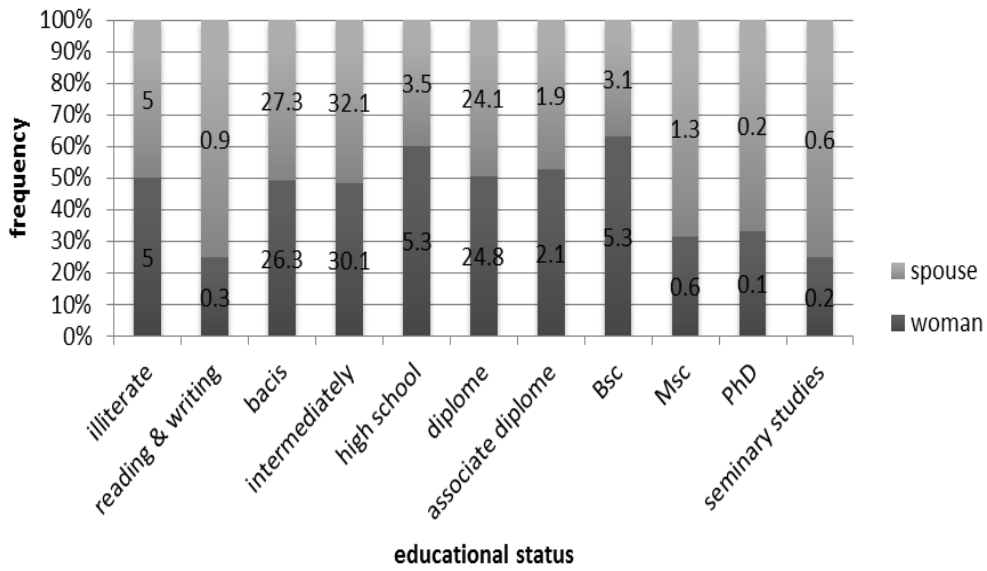

Figure 1. Frequency distribution of the research units and their spouses by educational status

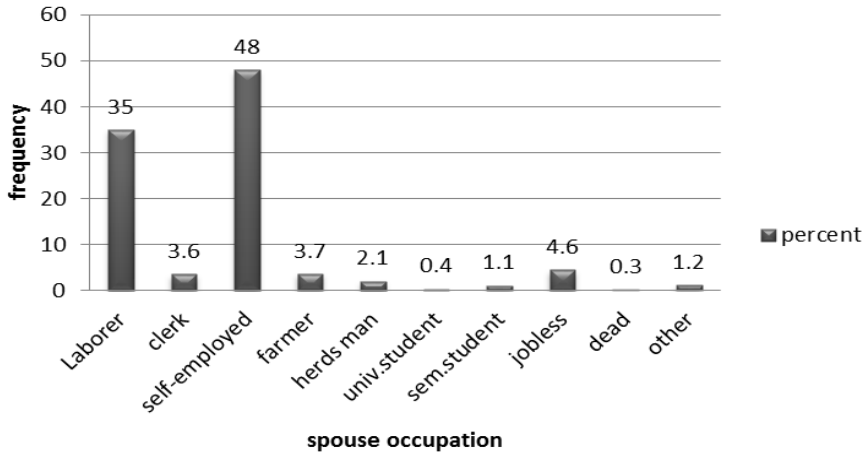

Figure 2. Frequency distribution of research units by spouse occupation status

The majority of the woman (97%) were housewives. The self-employed group of spouses had the highest occurring occupation (48%). The results also indicate that 4.6% of spouses were unemployed.

As to the women's housing conditions, results suggest that 32.8% owed a personal home while 52.7 lived in a rental or leased house. Furthermore, 14.5% of the female participants either lived at their mothers', their mother-in-laws', or in servant quarters. In terms of income, 63.2% of the female participants enjoyed an insufficient income. Meantime, 19% lacked insurance coverage and 26.9% were villagers. In addition, 10.5% of the female participants smoked tobacco and 22 of the cases (2.2%) were addicted to drugs.

Discussion

Investigations suggest that each social determinant of health, in turn, or by collective interaction, intensely affects or causes injustice in the health condition. In studies carried out in Iran based on the WHO model, structural determinants (i.e. occupation, education, income) are more widely investigated. Some have demonstrated education to have an effect on gestational diabetes by different means. An individual's level of literacy and awareness has an impact on the individual's behavior and practices by overwhelming his/her life style and social network and, consequently, affecting the individual's health.

Non-usage of pregnancy cares is more prevalent among mothers with a lower level of education and unhealthy habits (e.g. smoking, drug abuse, and alcohol consumption), resulting in pregnancy complications in these groups of individuals.[13]

According to the results obtained, 5% of the pregnant women referring to the educational hospitals in Mashhad and their spouses were illiterate and another 0.3% only possessed basic reading and writing skills. While the meta-analysis conducted by Sharifi et al. (2018) reveals a meaningful relation between low birth weight and mother's level of literacy.[14] At the same time, Dolatiyan et al. (2017), suggest that education and occupation are widely accepted as the two structural determinants greatly associated with gestational diabetes.[15] In their study, Karimloo et al (2012) demonstrate how the level of literacy, occupation, and family income variables are related to the low birth weight of the newborn.[16]

The present study illustrates that 63% of the woman lacked the adequate income to meet their necessities. Also, 35% of the spouses were laborers working in factories with fixed salaries or free workers relying on a daily wage. About 5% of the spouses were, most, unfortunately jobless at the time of study and those of them who lacked insurance coverage could barely afford to pay the hospital visit. Not to mention that unemployment is, by itself, a highly stressful life event.

Mahmoudi et al (2015) reported that with every degree rise in the stress domain, the likelihood of a child being born with a low birth weight increases by 1.03 folds.[17]

Study results additionally show that 10.5% of the female participants were smokers and 2.2% used drugs. According to Sharifi et al. (2018), unhealthy behavioral habits (tobacco, drug, and alcohol consumption), being exposed to cigarette smoke, and inadequate pregnancy care are amongst factors related to low birth weight. In his report, he refers to numerous local and foreign studies supporting the negative effect of these factors on the outcome of pregnancy.[18]

The limitations of the present study include the effect of individual, personality, psychological and mental differences on the individual's responses that were beyond the control of the research team. Despite ensuring the participants about the confidentiality of data, the responders may have not responded frankly to certain inquiries which, once again, was beyond the control of the research team.

With pregnancy, delivery and postpartum serving as one of the most sensitive and high-risk events in the life of any woman, enhancement of those social determinants that impact women's health and that of their children is of vital necessity.

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Conflict of Interest

The authors declare that they have no conflict of interest.

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