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Predicting factors of postnatal information needs of Afghan migrants women in Iran

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ABSTRACT

Background & Aim: Since women experience numerous physical and psychological changes after childbirth, the postnatal period is a sensitive stage for mothers, and they should have access to essential information to cope with these changes. This study aims to determine the predicting factors of the postnatal information needs of Afghan immigrant women living in Iran.
Methods & Materials: The present research is a cross-sectional study performed on 280 Afghan pregnant women referred to the selected perinatal health clinics in the southeast of Tehran province from May 22 till July 22, 2018. Using continuous sampling, data were collected by a questionnaire asking for demographic, midwifery, and postnatal information needs. Descriptive statistics and ANOVA, independent t-test, and multiple linear regressions were used for data analysis in SPSS version 21.
Results: The findings revealed that the highest and lowest postnatal information needs consisting of having information about postnatal problems (M=3.40, SD=0.3) and initiation of sexual intercourse after childbirth (M=3.08, SD=1.15). According to the multiple linear regression model, receiving routine pregnancy care (P=0.01) and age (P=0.04) were both significantly correlated with the mean of postnatal information needs so that these two variables predict 24% of the total score of postnatal information needs.
Conclusion: Women must receive postnatal training and information based on their needs; the demographic and midwifery characteristics of Afghan women should also be considered too.

Introduction

Postpartum period and having a baby is an essential event for women, particularly primiparous women (1). Women experience a variety of psychological and physical changes during pregnancy and afterward, and it takes weeks or months for them to cope with these changes (2). According to the world health organization statement, women shall receive high-quality, cost-effective maternity postnatal care at any place, including hospitals, homes and health clinics, and these services should be available to all women regardless of ethnicity, race, religion, or other characteristics (3).

Although most of the countries have made efforts to provide postnatal facilities for both mother and baby, there are still limitations and shortcomings. These attentions do not cover all the needs of women (4). Most women suffer from a lack of health information and postnatal risk indicators that can threaten both mother and baby (5). In a study conducted in Jordan in 2017 on pregnant women before their delivery, women asked for extensive information on adapting to mental and physical changes after pregnancy, familiarizing with the potential risk

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symptoms for mother and baby, infant care, breastfeeding and family planning (2).

Failure to meet the needs of women can decrease their self-confidence during the postnatal period, which is a critical time for them (6), thereby it can increase the maternal referral to a physician (7). As a result, raising public awareness and information, on the one hand, improves public health in the community and on the other hand, eliminates many biases and misconceptions related to health issues (8). Having enough information can increase women's self-esteem and their active and positive role in postnatal and neonatal care (9). Women with enough information regarding pregnancy and postnatal period are more successful in breastfeeding and experience fewer periods of postpartum depression (10). The risk of neonatal death within the first 24 to 48 hours of birth is higher, but studies have shown that increased maternal information on neonatal risk symptoms reduces mortality (11).

Thousands of Afghans have migrated to various parts of the world since around 1980. According to the United Nations High Commissioner for Refugees, Afghans make up the largest group of refugees in the world, and Iran is the second-largest host country, after Pakistan, for Afghan migrants (12). Extensive research on immigrant women shows that they face challenges in the health field due to problems such as poor social status, lack of social support networks, unemployment, homelessness, and difficulties in understanding health information in the host community (5).

Numerous immigrant women enter the host country while they suffer from a history of mental illness caused by war and displacement, so they need special attention. These people have little information on pregnancy and postpartum due to their inability to communicate with health care workers. Also, the different patterns of health care services, traditional beliefs, and lack of information about pregnancy and postpartum are among other factors that Afghan migrant women face (13). A study of Afghan women in Australia showed that Afghan women need more information during and after pregnancy since they have gone through many unpleasant pregnancy outcomes (14). Failure of the host country's health care system to provide care and treatment for these migrants will leave the host country's health system vulnerable, and lack of information may lead to more maternal and childcare problems (15).

Since a large group of immigrant Afghans is living in Iran and health care providers in every country must consider the health issues of all parts of society, extensive searches investigated the postnatal information needs have revealed that few studies have been done on the informational needs of Afghan women. Accordingly, this study was designed to determine the predictive factors of postnatal information needs of Afghan pregnant women.

Methods

The present research is a cross-sectional study. The study population consists of Afghan women referred to the selected perinatal clinics in the southeast of Tehran province in 2018. To determine the sample size needed to estimate postnatal information needs in Afghan women with an accuracy of d=0.2 and 95% confidence level, the following formula $n = \frac{Z^2_{1-\alpha/2} \times \delta^2}{d^2}$ was used to calculate the required sample size and 280 people were selected as the required sample size.

Sampling was carried out continuously from May 22 till July 22, 2018, during all days of the week to select the sample size among all pregnant Afghan women referred to perinatal clinics supported by four health care centers in the southeast of Tehran province. In the current study, 100 samples from Varamin city, 80 samples from Pishva city, 60 samples from Pakdasht city, and 40 samples from Qarchak city were covered to be studied. Inclusion criteria included being pregnant, being Afghan, and having a health record at the health clinics.

Data collection tools included demographic, and midwifery information needs questionnaire, and postnatal information needs a questionnaire which included 8 questions. The questions were asked about the body's return to before pregnancy, infant care, breastfeeding, family planning, diagnosis of postpartum complications, cesarean section or episiotomy scare care, postpartum nutrition, and commencement of postpartum sexual intercourse. Answers to questions are scored on a 5-point Likert scale from 0 to 4 (0=no idea, 1=not important, 2=slightly important, 3=important, and 4=very important). A total score covers a range of a minimum of 0 to a maximum of 32.

The questionnaire items were extracted based on reviewing the literature, the different tools for reproductive health information needs and opinions of several reproductive health professionals and then included in the primary tool. Face validity and content validity were used to determine the validity of the information needs during pregnancy. In face validity, 30 Afghan women were interviewed face-to-face to determine the level of difficulty and ambiguity. Content validity was based on the opinion of 9 faculty members of Iran University of Medical Sciences in midwifery and three midwifery specialists from Afghanistan. The reliability of the instrument was confirmed by internal consistency with Cronbach's alpha coefficient of 0.90. Applying the interview method, the questionnaires of the research were completed.

The Ethics Committee of Iran University of Medical Sciences approved the protocol of this study (code number: IR.IUMS.REC1396, 9513593001) before the collection of samples. The samples signed the written consent form during the interview, and they were assured that their information would be kept confidential. All questionnaires were completed anonymously and with no reference to the specification of the respondents of the study.

SPSS version 21 software was used to perform the Statistical analysis. Descriptive statistics including frequency distribution and central tendency and index of dispersion including mean and standard deviation were used to describe the demographic and midwifery characteristics. Independent samples t-test and one-way analysis of variance (ANOVA) were applied to correlate the postnatal information needs with demographic and midwifery information. Next, all variables with $p< 0.05$ included in a multiple linear regression model with backward elimination to estimate the effect of each of the independent variables (demographic and midwifery characteristics) on the dependent variable (postnatal information needs) and explain the changes. Before multivariate analysis, regression assumptions, including the normalization of residues, homogeneity of the change of the residual, multicollinearity of outlier data, and independence of the residuals were investigated.

The significance level for statistical tests was considered less than 0.05.

Results

Results showed that the mean and standard deviation of the samples' age was 26.9 ±6 years. According to the results of the study, the mean and standard deviation of the total score of postnatal information need were 26.29 and 5.95, respectively. Among postnatal information need of Afghan pregnant women Question 1 "How important is it for you to find out about diagnosing postnatal complications (severe vaginal bleeding, nipple ulcer, breast pain, and abscess and post-operative site infection)?" (M=3.40, SD=0.3) moreover, item 8, "How important is it for you to find out about resume sexual intercourse after childbirth?" (M=3.08, SD=1.15) Had the highest and lowest scores, respectively (Table 1). Further information regarding demographic and midwifery characteristics and their relationship with the mean of postnatal information needs is presented in table 2.

Among the variables that were studied to determine the relationship with the mean of postnatal information requirement, the variables of age, educational level, place of residence, type of previous delivery, number of children, routine prenatal care, spouse's level of education and previous place of delivery showed a statistically significant relationship. These variables were entered into a multiple linear regression model with backward strategy. The place of residence variable and routine prenatal care remained in the model. The results showed that the mean of postnatal information needs among women who did not receive regular perinatal care was -1.95 units lower than those who had a regular referral. Likewise, the mean of postnatal information needs in rural women was -1.65 units lower than the same for urban women. As a consequence, the results of the study indicate that 24% of the dependent variable (mean of postnatal information needs) changes can be explained by independent variables including, having routine prenatal care and place of residence (Table 3).

Table 1. Frequency distribution and response percentage to postnatal information needs questions by Afghan women referred to the selected perinatal healthcare centers in the south-east of Tehran province, 2018

Postnatal questions	No idea	Not important	Slightly important	Important	Very important	Mean	SD
	N (%)	N (%)	N (%)	N (%)	N (%)		
Diagnosing complications after pregnancy	0 (0)	13 (4.6)	25 (8.9)	78 (27.9)	164 (58.6)	3.40	0.3
Contraceptive methods	2 (0.7)	17 (6.1)	27 (9.6)	59 (21.1)	175 (62.5)	3.38	0.93
Return to pre-pregnancy physical condition	5 (1.8)	17 (6.1)	20 (7.1)	67 (23.9)	171 (61.1)	3.36	0.97
How to take care of the baby	3 (1.1)	25 (8.9)	20 (7.1)	52 (18.6)	180 (64.3)	3.36	1.02
Episiotomy and caesarean delivery procedures	4 (1.4)	22 (7.9)	21 (7.5)	76 (27.1)	157 (56.1)	3.28	1
Appropriate nutrition after pregnancy	2 (0.7)	23 (8.2)	30 (10.7)	80 (28.6)	145 (51.8)	3.22	0.98
Breastfeeding	2 (0.7)	33 (11.8)	28 (10)	65 (23.2)	152 (54.3)	3.18	10.7
Starting post-pregnancy sex	6 (2.1)	38 (13.6)	24 (8.6)	70 (25)	142 (50.7)	3.08	1.15

Table 2. The relationship between demographic and midwifery characteristics and postnatal information needs of Afghan pregnant women (n=280)

Characteristics		N (%)	P value	Characteristics		N (%)	P value
Number of years of living in Iran	Less than 5 years	56 (20)	P=0.15	**Age**	Less than 19 years	28(10)	P=0.01
	5-10 years	20 (7.1)			25-19	87(31.1)	
	15-11 years	16 (5.7)			30-26	92(32.9)	
	20-16 years	78 (27.9)			35-31	46(16.4)	
	More than 20 years	110(39.3)			More than 35 years	27(9.6)	
Religion	Shia	208 (74.3)	P=0.93	**Woman's occupation**	Housewife	264(94.3)	P=0.45
	Sunni	72 (25.7)			Employed	16(5.7)	
*** Spouse's level of education**	Illiterate	70 (25.1)	P< 0.001	**Women's level of education**	Illiterate	84(30)	P< 0.001
	Elementary	92 (33)			Elementary	75(26.8)	
	Secondary School	75 (26.9)			Secondary School	69(24.6)	
	High school	31 (11.1)			High school	42(15)	
	Academic	11 (3.9)			Academic	10(3.5)	
Insurance status	No insurance	34 (12.1)	P=0.36	****Spouse's occupation**	Wage earner	205(73.5)	P=0.59
	Insured	246 (87.9)			Freelance job	74(26.5)	
Nationality	Hazara	186 (66.4)	P=0.70	**Place or residence**	City	217(77.5)	P=0.01
	Pashtun	14 (5)			Village	63(22.5)	
	Tajik	60 (21.4)		**Gestational age**	Less than 15 weeks	40(14.3)	P=0.08
	Others	20 (7.1)			28-15 weeks	123(43.9)	
Location of previous delivery	Home	33(17.8)	P=0.001		29 weeks and more	117(41.8)	
	Public hospital	145 (78.4)		**Abortion history**	Yes	48(17.1)	P=0.07
	Private hospital	7 (3.8)			No	232(82.9)	
History of disease	No	44 (15.7)	P= 0.57	**Delivery**	Cesarean	41(14.6)	P= 0.01
	Yes	236 (84.3)			NVD	144(51.4)	
Time of visits by the Physician	Very short	4 (1.4)	P=0.23		No childbirth	95(33.9)	
	Low	33 (11.8)		**Number of children**	No children	95(33.9)	P<0.001
	Medium	181 (64.6)			1 child	126(45)	
	Long	53 (18.9)			2 children	36(12.8)	
	Very long	9 (3.2)			3 children and more	23(8.2)	
Birth preparation class	Yes	47 (16.8)	P=0.69	**Routine prenatal care**	Yes	212(75.7)	P= 0.01
	No	233 (83.2)			No	68(24.3)	

*****A case of spouse death has been reported

Table 3. Predictors of postnatal information need score of Afghan pregnant women referred to the selected perinatal centers in the southeast of Tehran province, 2018

Independent variables		Confidence level	P value	Statistics	Standard coefficient	B coefficient	R^2
The number of living children		-0.66 to-1.31	0.36	-0.90	-0.059	-0.41	0.24
Age	Less than 19 years	-5.48 to-1.77	0.31	1.3	0.9	1.85	
	25-19	5.09 to-1.13	0.21	1.25	0.15	1.98	
	30-26	3.34 to-2.10	0.65	0.44	0.04	0.62	
	35-31	3.20 to-2.76	0.99	0.001	0.02	0.002	
	More than 35 years	Reference Category					
Level of education	Illiterate	0.51 to -8.28	0.08	-1.73	-0.30	-3.88	
	Elementary	2.36 to -6.38	0.36	-0.90	-0.15	-2.01	
	Secondary	2.42 to -6.15	0.39	-0.85	-0.13	-1.86	
	High school	3.80 to -4.91	0.80	-0.25	-0.03	-0.55	
	Academic	Reference Category					
***Spouse's Level of Education**	Illiterate	1.42 to-7.08	0.19	-1.30	-2.16	-2.83	
	Elementary	4.05 to-4.16	0.96	-0.03	-0.006	-0.08	
	Secondary	3.40 to -4.79	0.74	-0.33	-0.05	-0.69	
	High school	3.68 to -4.58	0.83	-0.21	-0.02	-0.45	
	Academic	Reference Category					
Place of residence	Village	0.05 to-3.25	0.04	-2.04	-0.11	-1.65	
	City	Reference Category					
Type of previous delivery	Caesarean delivery	3.39 to-6.20	0.56	0.57	0.08	-1.40	
	Normal vaginal delivery	3.79 to-5.74	0.68	0.40	0.08	-0.97	
	No delivery	Reference Category					
Previous place of delivery	Home	4.70 to-4.42	0.95	0.06	0.008	0.14	
	Public hospital	6.62 to-1.81	0.26	1.12	0.20	2.40	
	Private hospital	Reference Category					
Routine care	No	-0.51 to-3.1	0.01	-2.55	-0.14	-1.95	
	Yes	Reference Category					

*A case of spouse death has been reported

Discussion

Item 1 "How important is it for you to find out about diagnosing complications for postnatal issues (severe hemorrhage, nipple ulcer, breast pain and abscess, operative place infection)?" And item 8 "How important is it for you to find out about starting sex after pregnancy?" have the highest and the lowest scores, respectively

In a survey, Almalik's (2017) studied 150 Jordanian women to investigate their postnatal needs. Neonatal care (M=3.54, SD=0.81) was the most frequent postnatal information needs, and information on possible postpartum disorders after natural childbirth (M=3.07, SD=0.98) was the lowest postnatal information needs (16). Data collected in Almalik's study were not consistent with the current study in terms of the mean of postnatal information needs. Afghan women preferred to have information about postpartum risk symptoms while Jordanian women this need was the least. The mean discordance in these two studies is probably because, in the Almalik study, women completed the questionnaires once postpartum, before the discharge of hospital and once more 6-8

weeks postpartum. However, all participants in the current study completed the questionnaire during pregnancy period.

The current study revealed that the most important choices made by Afghan women in different items were: information about breastfeeding is 54.3%, neonatal care 64.3%, diagnosis of postnatal physical complications 58.6% and family planning is 62.5%. In their study, Kamali et al. (2017) reported their findings on pregnant women in Kerman concerning the required information as follows: postpartum care needs 74%, types of delivery 72.5%, breastfeeding 69%, neonatal care 71%, postpartum physical and mental disorders 83% and family planning 66.5% (15).

Comparing the results of two studies showed that pregnant women living in Kerman needed more postnatal information in all dimensions compared to Afghan immigrant pregnant women. This difference in information needs can be justified in a way that different pregnant women may have different needs, especially in terms of the location of sampling. The study of Kamali et al. was involved with samples of 400 pregnant women with the academic level of education (15). Studies have reported that people with a higher level of education pursue more information (2, 17).

In the present study, the information needs regarding postpartum risk symptoms were essential for 58.6% of Afghan women Findings of a study conducted by Berman (2006) on Hispanic immigrants in the US referred to the perinatal clinic showed that 55.9% of these women reported that they needed information about postpartum self-care (18). The results of both studies indicate that Hispanic immigrants in the United States and Afghan immigrant women in Iran need approximately equal. In the research done Almalik's (2017), there was a significant statistical relationship between the mean score of postnatal information need and women's education, women's occupational status, referral to a perinatal care clinic, and type of previous delivery. Employed women with academic education and women who regularly visited the clinic for prenatal care reported a greater need for postnatal information (16). In this respect, our views on the results of the study are in line with those of Almalik (2017). In our study, women with a higher level of education, those who live in urban areas, and women who had a regular referral to perinatal care clinics reported a greater need for postnatal information. Afghan women with a history of cesarean section reported a higher mean of postnatal information need in comparison with women without a history of delivery. The findings of Almalik study (2017) likewise confirmed that women with a history of cesarean section reported a higher need for postnatal information (16), which is consistent with the results of our studies.

Conversely, Almalik et al. (2017) study revealed that older women needed more information than young mothers ($P < 0.013$) (16). In this vein, the results of the current study are not in line with Almalik's research results. Older Afghan pregnant women reported that they need less information.

In their study, Kamali et al. (2017) suggested that there was a statistical relationship between age, education, and previous delivery. Younger, educated, and primiparous women tended to have more information on postpartum disorders, breastfeeding, and family planning (15). These results of Kamail's research are in line with the results of the present study. On the other hand, in their study, Kamali et al.

(2017) showed that there was no statistical relationship between housekeeping, number of children, gestational age and the mean of the postnatal information needs (15). This is consistent with our results in terms of the lack of correlation between gestational age and occupation with the needs of postnatal information.

Nonetheless, our study showed that there is no correlation between the number of children and the mean of postnatal information. In this respect, our results may have accounted for inconsistent findings with the previous studies conducted by Kamali et al. One of the reasons for the inconsistency is the level of education of the participants in the two studies. Women participated in the research done by Kamali et al., had an academic education; however, only 3.6% of Afghan migrant women had an academic education. Review of the related literature and studies conducted across the world revealed that women with higher education level were looking for more postnatal information (17, 19).

In their study, David et al. conducted research to assess postpartum information needs among Indian women from the perspective of women and nurses. The results of their study showed that there was a statistically significant relationship between women's information needs and age. In this study, women 18 to 28 years old needed more information in comparison with older women, 29 to 39 years old (20). Therefore, the results of the present study are consistent with previous results found by David et al. As the age increases, the number of women's childbirth experiences increases, it is possible that they may have acquired the information they needed during pregnancy from the previous childbirth (15).

In the present study, the place of residence was identified as one of the predictors of postnatal information needs. Rural women needed less information than women who live in the city. The results of this study are consistent with the results found by Mahiti. Mahiti et al. (2015) conducted a study to investigate women's awareness of pregnancy, delivery, and postnatal care in rural areas of Tanzania. According to their report, women were aware of the usefulness of health care; however, it was difficult for them to access such facilities and services. Barriers such as long distances between the villages and from village to urban areas and lack of transportation made them expect less health care services and are less likely to seek care during pregnancy and after childbirth. (21).

The history of routine pregnancy care Investigated as one of the predictors of postnatal information need in this study. Women without a history of routine prenatal care needed less postnatal information compared to women with routine prenatal care. In their study, Sword et al. conducted a postnatal health survey to assess needs for information and access to healthcare services among Canadian and immigrant women. They found out that access to health care did not affect postnatal information needs. In this study, generally, immigrant women reported that they need more information than Canadian women. The lack of access to health services by a small group of women was due to their lack of awareness of the health system and the place of healthcare providing (22). Also, in a study conducted by Kharrazi et al. (2016) in Mashhad, the researchers found that women with more than 3 times prenatal care had a higher level of health literacy. It is more important for them to have health information. These

results are in line with the results of our study. The low literacy or illiteracy of a large number of Afghan women who used the color spectrum instead of the Likert spectrum to understand better the items can be considered as the severe limitation of this study.

Also, this limitation and Afghan women's illiteracy can be seen as one of the causes of why they need receiving information as their illiteracy has restricted their access to information from different sources. Accordingly, investigating the sources of information available for Afghan women can be suggested for further studies.

Generally, the results of this study showed that age and routine pregnancy care are predictive factors of postnatal information needs in Afghan women. Therefore, the information should be provided according to demographic and midwifery characteristics to improve information providing competence and increase Afghan migrant mothers' awareness.

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Conflict of Interest

The authors declare that there are no conflicts of interest in the publication of this study.

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