

Original Paper

Female Healthcare Providers' Experiences of Childbearing: A Content Analysis Based on the Social Capital Theory



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ABSTRACT

Introduction: Social capital has potential effects on reproductive health and childbearing behaviors. However, there is limited information about its relationship with childbearing.

Objective: This study aimed to explore female healthcare providers' experiences of childbearing based on the social capital theory.

Materials and Methods: This qualitative study was conducted from July 2018 to February 2019 on 15 female healthcare workers in healthcare centers in Babol City, Iran. The participants were purposively recruited with maximum variation respecting their age, work experience, educational level, and occupation. The study data were collected through 15 semi-structured interviews and analyzed using directed qualitative content analysis.

Results: The participants were female healthcare providers working in hospitals or healthcare centers of the University of Medical Science. Their Mean±SD age and work experience were 35±8.25 and 10±7.5 years, respectively. The extracted codes during data analysis were grouped into three predetermined main categories, namely structural social capital (social learning and conformation to social norms), cognitive social capital (social beliefs and values with three subcategories, namely religious beliefs, gender preference, and social stigma), and relational social capital (support and trust). The most critical factors affecting participants' childbearing behaviors were trust in their support systems and conformation to social norms.

Conclusion: The different dimensions of social capital can affect childbearing behaviors. Therefore, social capital should be considered when designing population and reproductive health policies.

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Highlights

- Female workers have more extensive relationships with people and greater access to reproductive health information and contraceptive methods; hence, their childbearing-related beliefs and attitudes are affected by social factors such as social capital.
- Different dimensions of social capital are related to childbearing behaviors among women. Childbearing is not only a biological phenomenon but also a social phenomenon.
- Female healthcare workers' access to different social resources can affect their childbearing behaviors through religious beliefs, gender preference, social stigma, support and trust, social learning, and conformation to social norms.

Plain Language Summary

The high fertility decline in Iranian societies has created concern about the aging population in the future. Women's attitudes towards their maternal and spousal roles have significantly changed their childbearing behaviors. Social capital can be significantly related to behaviors by creating the possibility of information exchange, facilitating access to resources, fostering cultural values and norms, and affecting beliefs and attitudes. This study investigated female healthcare providers' experiences and perceptions of childbearing based on the social capital theory. Our results showed that different dimensions of social capital affect childbearing behaviors among women. Childbearing is not only a biological phenomenon but also a social phenomenon.

Introduction

The global population is rapidly aging due to many factors, including decreased fertility. In Iran, the fertility rate has decreased very rapidly and exceptionally by 70% [1], i.e., from seven children per woman in the early 1980s to 1.6 children in 2011 in the last three decades [2, 3], and 1.5 children in 2015 [4]. This rate is estimated to reach 1.3 children in the next two decades [5]. According to the World Bank estimations, the downward trend of population growth in Iran will result in a population growth rate of less than 1% by 2025, causing the complete aging of the population [6].

Decreased childbearing is one of the main factors behind decreased population growth in Iran. Factors contributing to decreased childbearing include improved educational level of women, increased female employment rate, governmental policies for population control [7], religious authorities' support, reduced neonatal death rate and increased marriage age [8]. Moreover, women's attitudes toward their maternal and spousal roles have significantly changed their childbearing behaviors [9, 10].

Social Capital (SC) has potential effects on women's childbearing behaviors. SC consists of active relationships among people, which include trust, mutual perception, shared values, and behaviors that connect the members of a human network and facilitate their collaboration [11]. Based on organizational SC theory, social capital has three main dimensions of structural, cognitive, and relational. Structural SC encompasses social networks, SC's main idea, and their components [12, 13]. The cognitive domain includes the shared perception of the members of a network about their common goals and dominant values. The relational dimension refers to the quality of relationships in the network. Trust, a key component of SC, is in the relational dimension [14]. SC can significantly affect behaviors by creating the possibility of information exchange, facilitating access to resources, fostering cultural values and norms, and affecting beliefs and attitudes [15].

Employment is a significant factor contributing to SC and hence, may affect childbearing. Employees spend a great deal of time at the workplace dealing with different people. Therefore, the workplace is considered a significant source of SC [16]. Female workers have more extensive relationships with people and greater access to reproductive health information and contraceptive methods; hence, their childbearing-related beliefs and attitudes are affected by social factors such as SC.

Several earlier studies have shown the significant relationship of SC with childbearing [17-20]. A qualitative study into female workers' childbearing behaviors also showed that intra- and extra-occupational challenges moved female workers towards having a few children [21].

However, there is limited information about the experiences of women workers with resource-related SC in the workplace and childbearing behaviors. Therefore, the present study was conducted to explore female workers' experiences and perceptions of childbearing based on the SC theory. Qualitative studies provide a better and deeper understanding of health-related problems and their behavioral and environmental determinants from the perspectives of those affected by these problems [22]. This study aimed to explore female healthcare providers' experiences of childbearing based on the social capital theory.

Materials and Methods

This qualitative study was conducted from July 2018 to February 2019. The study population consisted of female healthcare workers in healthcare centers in Babol County, North of Iran. Workers with a history of infertility and those with no child were not included. Eligible workers were selected through a purposive sampling method with maximum variation regarding their age, marital status, and educational level. For this purpose, by referring to different wards of hospitals and clinics, women who met the inclusion criteria were identified. After explaining the study objectives and obtaining their consent to participate, the appropriate time at the beginning or end of the work shift and place were determined to hold the study interviews. After reviewing the inclusion criteria, the participants were invited for an interview. Five participants refused to be interviewed. The reasons were lack of time or personal matters. Data were saturated after 15 interviews with 15 participants.

The study data were collected through in-depth semi-structured interviews guided by the dimensions of the organizational SC theory [12]. The interview guide is presented in Table 1. The interviews were conducted by the first author: a female researcher who was appropriately skilled in qualitative data collection techniques. The main interview questions were developed and validated based on the SC theory. Besides the main open-ended questions, probing questions were used to collect more detailed information [23]. At the end of each interview, the interviewee was provided with the opportunity to talk about issues not addressed in the interview. Fifteen face-to-face interviews were conducted. All participants were interviewed once, and the length of the interviews ranged from 30 to 45 minutes. Sampling was continued up to the point of data saturation, i.e., when no new data and categories were obtained from interviews [24]. All interviews were conducted in a private place, and participants were free to openly express their thoughts, feelings, and perceptions [25]. After obtaining permission, interviews were recorded using a cell phone.

Data trustworthiness was ensured via the four criteria of credibility, dependability, confirmability, and transferability [26]. Prolonged engagement with the study subject matter over 6 months, as well as member checking, helped ensure credibility. During member checking, participants were asked to check whether the codes really conveyed their experiences. Two experts in qualitative research in health and social sciences ensured confirmability through peer checking. To ensure transferability, sampling was done with maximum variation regarding participants' age, educational level, number of children, and occupation. Moreover, dependability was ensured through holding semi-structured interviews, using structured processes for data documentation and interpretation, simultaneous data analysis by two study authors, and comparison of the results of their analyses.

Table 1. Guide question for interviews

Dimension of the Organizational Social Capital	Questions
Structural	What were your support resources? How did they affect your childbearing? How did the support from your spouse, family, workplace, and colleagues affect your childbearing?
Relational	What were the effects of media and advertisement on your childbearing? Did the opinion of others (your family, colleagues, others) affect your childbearing? How? Please explain more.
Cognitive	How did your religious orientation and social beliefs affect your childbearing? Was there any conflict in your family or social culture with your childbearing? How? Please explain more.

Before each interview, the interviewee was provided with information about the aim and methods of the study, data collection procedures, eligibility criteria, the benefits of participation in the study, her freedom to voluntarily participate in the study, and confidential management of the study data. Then, informed consent for participation was obtained, and the interview was recorded with her consent. Each interview was held with an appointment at the interviewee's workplace.

Data analysis was performed through directed qualitative content analysis. In this method, data coding is performed based on an existing theory or the results of previous studies. This method aims to validate or further develop a conceptual framework or theory [26, 27]. Accordingly, each interview was immediately transcribed and read several times to grasp its main idea. Then, primary codes were generated by identifying and coding the meaning units. The generated codes were combined and categorized into subcategories according to their similarities. Subcategories were also grouped based on their similarities into the three predetermined main categories, i.e., the structural, cognitive, and relational dimensions of SC. We used Onenote for the analysis.

Results

Data were saturated after 15 interviews with 15 participants. Their Mean \pm SD age and work experience were 35 \pm 8.25 and 10 \pm 7.5 years, respectively. Table 2 presents their characteristics.

Data analysis resulted in the development of 32 primary codes, which were grouped into three main categories of cognitive, relational, and structural SC.

The first category was cognitive social capital. This category included social beliefs and values with three subcategories of religious beliefs, gender preference, and social stigma.

Religious Beliefs

Religious beliefs affect behaviors and desires. Islam greatly emphasizes childbearing and disapproves of behaviors such as abortion. Based on their religious beliefs, some participants avoided abortion even if their pregnancies were unwanted.

Table 2. Summary of participant's characteristics

No.	Age (y)	Number of Children	Educational Level	Ward	Occupation
1	27	1	Bachelor's degree	Outpatient clinic	Midwife
2	34	2	Bachelor's degree	Cardiology	Nurse
3	38	2	Master's degree	Surgical	Nurse
4	41	3	PhD	Outpatient clinic	Physician
5	36	2	Master's	Gynecology	Midwife
6	35	2	PhD	Outpatient clinic	Dentist
7	42	2	Bachelor's degree	Surgical	Nurse
8	53	2	Bachelor's degree	Internal medicine	Head nurse
9	38	1	Associate degree	Outpatient clinic	Pharmacology technician
10	40	3	Bachelor's degree	Outpatient clinic	Midwife
11	48	2	Bachelor's degree	Internal medicine	Head nurse
12	35	1	Bachelor's degree	Radiology	Radiography technician
13	46	2	Associate degree	Laboratory	Laboratory technician
14	40	1	Bachelor's degree	Pathology	Laboratory technician
15	50	1	Diploma	Surgical	Clerk

"Well, I have religious beliefs. I had an unwanted pregnancy for the second time. But I did not want to break my repentance [and to have another elective abortion]. I had no excuse this time and thus, continued my pregnancy (Participant 10, 40 years old)."

"We believe God gives a child, and we consider him/her a gift from God, and abortion is sin (Participant 12, 35 years old)."

Gender Preference

Gender preference also can affect childbearing. Some families may prefer a certain child gender due to socio-cultural obligations and expectations. Gender preference may result in more pregnancies. Some participants had certain gender preferences due to their cultural beliefs and considered their desire to have a child with a preferred gender as a reason for pregnancy.

"My husband did not support me. If I had a son, I could rely on him. I would feel proud if I had a grown-up son (Participant 11, 48 years old)."

"I thought if I did not have a daughter, I would not have a friend, and I would not have anyone to take care of me when I got older (Participant 4, 41 years old)."

Social Stigma

Infertility concerns directly affect childbearing. Infertile women who consider childbearing essential and important hardly achieve psychosocial balance. Some participants reported concerns and negative attitudes about social stigma related to infertility or multiple pregnancies as significant factors affecting childbearing.

"We have a tendency of delayed pregnancy in our family. We have always been subjected to social stigma for this. I gave birth to my first child just to prevent others from considering me infertile (Participant 14, 40 years old)."

"I decided not to be pregnant for a few years after marriage, and my husband's family thought I was infertile (Participant 9, 38 years old)."

Another category was relational SC which included trust and support.

Trust and Support

All participants directly or indirectly reported that they received support from their families, spouses, and work-

place. Support refers to behaviors or actions for helping others. It may be tangible or intangible. Examples of intangible support are empathy, kindness, help in childrearing, and suggesting strategies for childrearing. Our participants noted that their trust in the availability of support (by their families, spouses, and workplace) significantly affected their decision for childbearing.

"After birth, I went on parental leave. After the leave, it was summer, and my husband, who is a teacher, was at home and cared for the baby. After that, I took the baby to a nursery until I could finish my mandatory post-graduation service. Sometimes, we had problems, so my family or neighbor took care of my baby. Now, my sister lives near us, and I take my baby there (Participant 2, 34 years old)."

"My parents took us downstairs to take care of our children, and I went to work with confidence (Participant 1, 27 years old)."

The last category was structural SC and included social learning and conformation to social norms.

Relationships in social networks also affect childbearing and contraceptive behaviors. In these networks, individuals receive information about childbearing and others' childbearing experiences. Participants noted that relationships in social networks affected their childbearing differently, including social learning and conformation to social norms.

Social learning

Social learning changes behaviors and intentions. Attendance at social networks, such as families, friends, and workplaces, results in information exchange and, thereby, can affect behaviors. Moreover, mass media give different information to people and thereby affect childbearing behaviors and ideals through social learning. Media messages affect collective behaviors by forming new norms and indirectly affect social interactions through encouragement.

"I go to Quran recitation classes, where some people talk about their lives. There, I learn things from their plans (Participant 9, 38 years old)."

"Media and messages provided by TV and healthcare centers significantly affect people's decisions about the intended number of their children (Participant 3, 38 years old)."

Conformation to social norms

Our participants noted that one of their reasons for childbearing was to conform to social norms and to respond to the requests and wishes of their significant others, such as their families, their spouses' families, and their friends. They highlighted that they conformed to social norms to more conveniently live in their social environments and to be accepted better by others. Conformation to social norms was prominent in the case of the first pregnancy.

"Now, the intended number of children is affected by social conditions. Having only one child has become a norm in our society. New messages for having three children are just for those who strictly adhere to religious beliefs. Most people, including most of our colleagues, have only one child (Participant 12, 35 years old)."

"Now, most families have two children, and it is a norm in our society (Participant 5, 36 years old)."

Discussion

This study explored female workers' experiences of childbearing based on the social capital theory. Childbearing in female health workers could be affected by the nature of the job (e.g., shift work, job stress); therefore, the experience of childbearing in female health workers can differ from other workers. Childbearing behaviors of female workers in the present study were grouped into the three main dimensions of the organizational SC theory, namely structural, cognitive, and relational SC. Findings showed that female workers' access to different social resources could affect their childbearing behaviors through religious beliefs, gender preference, social stigma, support and trust, social learning, and conformation to social norms. In this study, from the participant's viewpoint, social learning and conformation of social norms (structural SC) affected childbearing behaviors.

The structural dimension of SC refers to the general pattern of relationships among people and includes social networks. Structural SC affects beliefs and behaviors by providing opportunities for information exchange, social learning, and social coping. Social coping is a known factor affecting behaviors, ideals, and wishes [27, 28]. In recent years, significant changes have occurred in Iranians' values and attitudes with regard to childbearing, marriage, and family [3, 29]. Moreover, most couples do not seek to fulfill their emotional needs through childbearing and hence, have no great desire for it [30]. On

the whole, decreased childbearing reflects changes in moral and social norms in societies that are conveyed to women through media and interpersonal relationships. A former study showed that social structures such as social learning and social pressure affect childbearing-related beliefs and norms [31]. Social learning and conformation to social norms through media and social networks could change beliefs and values. When women attempt to develop their feminine identity outside their homes and not through motherhood and maternal roles, such changes would decrease childbearing.

This study also revealed that resources of support and trust (relational SC) affect childbearing behaviors. The relational dimension of SC describes the different types of personal relationships which affect behavior through support and trust [32]. Another study found support as a significant factor affecting childbearing intention among women in Eastern Europe and reported that childbearing is associated with many tangible and intangible costs, which can be covered through tangible and intangible sources in social networks [19]. However, a study in Iran reported that the intention to have the first pregnancy had no significant relationship with perceived social support. The authors attributed this insignificant relationship to the fact that in Iranian society, women need to have their first pregnancy under others' pressure to prove that they are fertile. That study also reported that the number of pregnancies and the intention to have more pregnancies had a significant relationship with social support [33]. Of course, tangible support (including access to financial resources, help in child care and household activities, and collaboration for solving childrearing problems) and intangible support (such as emotional support) have no significant effects on fertility; instead, they have relationships with childbearing through making life easier, helping people protect their social status, and improving financial status [34]. In Iran, most female workers in health centers are shift workers [35]. This study also included female workers in healthcare centers, and most were shift workers. Support by spouse and other family members for providing care to children and doing household activities is crucial for female shift workers. These women also need organizational support, such as the possibility of going on leave, having a flexible work schedule, and the availability of nursery facilities at the workplace.

In this study, from the participants' perspective religious beliefs, gender preference, and stigma (cognitive SC) affect childbearing behaviors.

Table 3. Main categories and subcategories of data analysis based on the organizational social capital theory

Participants' Quotations	Code	Subcategory	Main Category
Now, the intended number of children is affected by social conditions. Having only one child has become a norm in our society. Most of our colleagues have only one child. This is a social norm.	Determining the intended number of children based on social norms	Social networks	Structural social capital
Rearing a daughter is very difficult these days. Society is not suitable for daughters. Families face difficulties when their second baby is a girl. They prefer a male child even if they already have two male children.	Gender preference	Shared beliefs and values	Cognitive social capital
We lived in a building where my family lived. This was the main reason for my second pregnancy. My mother lived downstairs. She helped me in caring for children. Moreover, I went to her house in case of problems, talked with her, and got calm. I would never have become pregnant for the second time if my mother was not with me.	Spouse and family support for caring for baby	Trust and support	Relational social capital

The cognitive dimension of SC refers to shared interpretations, manifestations, and semantic systems, with aspects such as shared language, codes, and stories. Cognitive SC promotes integrity, a sense of security, and self-esteem [32]. Changes in childbearing behaviors have a close relationship with changes in the value systems of individuals [36]. Childbearing based on gender preference is common in most societies [37]. For instance, many Iranians believe that male children are powerful, and hence, the desire to have a male child may affect their childbearing behaviors [38] (Table 3). Our study showed cultural values as a major factor affecting female workers' childbearing behaviors. For instance, our participants referred to their preference over having a child from a certain gender as a reason for having the second or the third pregnancy. Some of them preferred to have a boy child to be a source of support for them, while some others preferred a girl child to be a friend and fellow for them. Although, social stigma through infertility or having some children affect fertility behaviors in women.

Another study in Iran also showed religious orientation as a significant factor affecting the intended number of children and reported that religiosity had a significant positive relationship with the value of a child for couples [39, 40]. Modernity and globalization have considerably affected social and cultural capital in Iran and, thereby, have significantly changed childbearing behaviors among Iranians. These changes have altered Iranians' childbearing attitudes and caused them to avoid parenthood [41]. Our participants also referred to religious beliefs as the main factor affecting their intention to continue with an unwanted pregnancy. They considered abortion a sin and hence, avoided it in case of an unwanted pregnancy.

Some limitations of the study need to be pointed out. While childbearing is affected by couples' attitudes and beliefs, the study sample consisted only of women who worked in healthcare settings and hence, had greater awareness of and control over their childbearing behaviors due to their relatively good financial status. Accordingly, study findings may not be generalizable to all social classes. Studies on female workers in different settings are recommended to provide more in-depth information about their childbearing behaviors.

This study supports the hypothesis that different dimensions of SC affect childbearing behaviors among women. Childbearing is not only a biological phenomenon but also a social phenomenon. Quantitative studies are recommended to test this hypothesis.

Different studies have been conducted on the downward trend of childbearing in Iran. However, none of them addressed the role of SC. The present study showed that the different dimensions of SC affect childbearing behaviors. Therefore, population and reproductive health authorities and policymakers are recommended to consider SC improvement as a strategy to prevent population reduction in Iran.

Ethical Considerations

Compliance with ethical guidelines

The Ethics Committee of [Babol University of Medical Sciences](#), Babol, Iran approved this study (Code: MUBABOL.HRI.REC.1395.84). All participants were informed about the study aims and procedures. Moreover, they were ensured that participation was voluntary. The confidentiality of participants' information was guaranteed. The participants signed a consent form which was attached to the study instrument.

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Authors' contributions

Study conception and design, drafting of the manuscript and critical revision: Mojgan Firouzbakht, Abass Ebadi, Mohammad Esmail Riahi, Aram Tirgar, and Maryam Nikpour; Analysis and interpretation of data: Abass Ebadi and Mojgan Firouzbakht; Acquisition of data: Mojgan Firouzbakht; Read and approved the final manuscript: All authors.

Conflict of interest

The authors declared no competing interests.

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