

# ORIGINAL ARTICLE

## Midwives' Perception Regarding Conditions Influencing the Implementation of the Natural Childbirth Promotion Program in Iran: A Qualitative Study

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### ABSTRACT

**Background:** In Iran, the Natural Childbirth Promotion Program (NCP) has been implemented as a component of the Health Transformation Plan (HTP) since 2014 and as an attempt to encourage natural childbirth practices and reduce cesarean section rates. The purpose of this qualitative study was to explore the perceptions of midwives about conditions influencing the implementation of NCP.

**Methods:** In this qualitative study, data were collected through 21 in-depth semi-structured individual interviews with expert midwives who were selected using purposive sampling mainly from one medical university in Eastern Iran from October 2019 to February 2020. Based on the framework method as a thematic analysis approach, the data were analyzed manually. To enhance the rigor of the study, we followed Lincoln and Guba's criteria.

**Results:** Data analysis yielded 546 open codes. After the codes were reviewed and similar codes were removed, there remained 195 codes. Further analysis led to extraction of 81 sub-sub themes, 19 sub-themes, and eight main themes. These themes included: Responsive staff; Characteristics of the parturient; Recognition of midwifery role; Teamwork; The birthing environment; Effective management; Institutional and social context; and Social education.

**Conclusion:** Based on the perceptions of the studied midwives, the success of the NCP is guaranteed by a set of conditions identified in this study. In practice, these conditions are complementary and interrelated, and they cover a wide range of staff and parturient characteristics to the social context. It seems that effective implementation of the NCP also calls for the accountability of all stakeholders, from policymakers to maternity care providers.

**Keywords:** Health plan implementation, Iran, Midwifery, Natural childbirth, Qualitative research

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## INTRODUCTION

Childbirth is an important life event because not only does it imply the beginning of a new life, but also the birth process itself is of paramount importance.<sup>1</sup> Some believe that in recent decades there has been a paradigm shift in the birth process from natural to medicalizational perspective. This paradigm shift has brought about exclusion of women from the process of knowledge production and transfer, their alienation from reproductive power, and denial of their will and autonomy during childbirth.<sup>2</sup>

Despite the support of the World Health Organization (WHO) (for natural childbirth and the emphasis on the need for valid reasons to intervene in the natural process of childbirth, there has recently been an unprecedented rise in the rate of cesarean section in many regions of the world, including Iran, which has imposed high costs and risks to health systems as well as mothers and babies.<sup>3-6</sup> According to the WHO report, the average percentage of deliveries by cesarean section in developed countries has reached 25%, which is significantly higher than the 15% recommended by the WHO.<sup>7</sup> The increase in cesarean section and the sharp differences in its rate in different parts of the world cannot be explained solely by medical factors.<sup>8</sup> Therefore, the search for non-medical factors such as cultural, economic, and social issues in explaining the causes of the decrease in natural childbirth and acceptance of childbirth through cesarean section seems to be a much needed line of inquiry.<sup>9</sup>

The international response to the challenge of reduced natural childbirth is the commitment to enhance maternal health through promotion of natural childbirth under the framework of the Millennium Development Goals, for which various interventions have been designed and implemented in different countries.<sup>5,10</sup> In Iran, various measures have been taken so far to respond to this challenge. These include establishment of mother- and child-friendly hospitals, development of standard natural childbirth protocols with

pain reduction methods, and recently, the Natural Childbirth Promotion Program (NCPP). The implementation of this program, as a component of the Health Transformation Plan (HTP) of the health system which aims at improving the health of mothers and babies, has been mandatory in all Iranian hospitals since 2014.<sup>11</sup>

The caesarean section rate in Iran decreased to 6% immediately after the implementation of NCPP, and then, while it was leveled off for a long time after that, and even in public university hospitals, it had an upward trend. Although NCPP has reduced the number of cesarean sections in general, its goals have not been fully achieved.<sup>6</sup> Based on another research, NCPP has not been successful in significantly increasing the number of natural births compared to before the implementation of HTP, and more planning should be applied in this regard.<sup>12</sup> In general, the conducted studies have not considered the NCPP as a very successful plan but one with its own challenges.<sup>6,13</sup> However, efforts have also been made to identify and address these challenges.

According to a qualitative study conducted on the staff of a university hospital in Iran, the favorable outcomes of NCPP were found to depend largely on the elimination of managerial obstacles, executive and legal inadequacies, and conflicts within the system.<sup>14</sup> In another study, the main elements contributing to the effective implementation of NCPP in Iran, according to the perspective of the program stakeholders, are cultural promotion for natural childbirth, strong leadership, empowerment, education, comprehensive support, and optimization.<sup>15</sup> Also, in a global WHO study entitled "Midwives' Voices, Midwives' Realities", the main obstacles to the provision of quality midwifery care are organized in the three categories of social, economic, and professional barriers.<sup>16</sup> According to the results of a similar study based on midwives' attitudes, the requirements for quality midwifery care in Iran are classified in four categories: promotion of education, human resource management, regulations,

and appropriate policies.<sup>17</sup> Nevertheless, a review study based on the results of more than 500 quantitative studies emphasizes that identification of the factors affecting the successful implementation of health programs requires paying careful and timely attention to the set of variables related to communities, providers, innovations, different aspects of organizational performance, and the support system of the program from the point of view of the key stakeholders.<sup>18</sup>

After more than seven years since the implementation of NCPP in Iran, we found no evidence that focuses on the deep and comprehensive understanding of these conditions at all levels of the health system based on the midwives' point of view. Since the qualitative approach can provide a deep and rich understanding of people's perceptions and experiences,<sup>19</sup> this study adopted a qualitative approach to find the conditions influencing the implementation of NCPP based on the perceptions of midwives, as the main custodians of natural childbirth and the key actors in the maternity care system.

## **MATERIALS AND METHODS**

This study used a qualitative exploratory-descriptive design to explore the midwives' perceptions of the conditions influencing the implementation of NCPP in Iran. The interviews started in October 2019 and ended in February 2020. The main study setting was the only referral maternity ward in the region, which is located in a university healthcare facility affiliated with Gonabad University of Medical Sciences. The participants were midwives with managerial, educational, and practitioner roles with different years of experience from six universities of medical sciences. The inclusion criteria were having at least an associate degree in midwifery, at least 6 years of work experience in a maternity ward, and at least 3 years of work experience before and after the implementation of NCPP. The only exclusion criterion was unwillingness to participate in the study and interview. Purposive sampling strategy was

adopted with maximum variation (in terms of age, work experience, education level, and professional role), and all interviews were conducted face-to-face by two of the authors (EB: the lead interviewer, a faculty member of the midwifery department and trained in qualitative research methods; VA: a female research assistant and familiar with qualitative research). Twenty-one semi-structured in-depth individual interviews were conducted with the participation of midwives (16 interviews with 12 midwives from one medical science university in eastern Iran, including four repeated interviews due to the change in the role of midwives during the interviews and five interviews with midwives from five other universities of medical sciences in Iran). After making the necessary arrangements with the relevant university officials, the corresponding author (AK) received the telephone numbers of informant midwives and invited them to an interview after explaining the objectives of the study. The time and place of the interview were chosen at the participants' convenience. Interviews with the participants were conducted in a quiet room in hospital or in their office, and in case of faculty members, the interviews were conducted in their office at university.

All invited midwives agreed to participate in the study. The initial interview guide was inspired by Vincent's framework.<sup>20</sup> Then, by conducting two pilot interviews, the interview guide was revised, and the necessary corrections were made (Table 1). The interviews lasted from 55 to 85 minutes, with an average length of 65 minutes and continued until data saturation when no new data were extracted. The interviews were digitally recorded and transcribed verbatim and then typed by two of the authors (EB, VA) along with contextual or reflective notes.

Data analysis was performed using the framework method as a thematic analysis, which is known as a pragmatic, flexible, systematic, and rigorous approach for thematic analysis of qualitative data in applied policy research.<sup>21, 22</sup> Data analysis was carried out according to the framework method in five

**Table 1:** Interview guide questions

Opening questions	Probing questions
1. It has been five years since the NCPP has been implemented, what is your general experience with this program?	Is there any difference compared with before the program? What's the difference? What effect did these differences have on cesarean section and natural childbirth?
2. According to your experience in these five years, what conditions do you know that have affected the implementation of the NCPP?	What type of influence? Do the atmosphere in the maternity ward and the relationships between the personnel have an effect? What type of effect? What is the effect of the environment in which you work? What about outside the doors of the maternity ward? What about outside the hospital doors? What about the payments? What effect did they have on the program?
3. How do you see parturient's own role in implementing the program?	What's the difference between them? Why are they different?
4. How do you see the role of the parturient's family members in the implementation of the program?	How do they affect the parturient? How do they affect childbirth?
5. How do you see the role of the community in the implementation of the program?	Do you think communities are different? What's the difference? What effect do these differences have on the program? Where are the roots of these differences?
6. In addition to what has so far been done to implement the natural childbirth promotion program, what other work do you think needs to be done?	Can you clarify your point by giving an example? Please tell me any other point that was not mentioned but you need to talk about

key stages: Familiarization with the interview, Developing a thematic framework, Indexing, Charting, and Mapping and interpretation.<sup>21</sup> In the first stage, the researchers listened to the audio files repeatedly to create a better sense of the data and reviewed the transcript of the interviews and the contextual or reflective notes with the aim of immersing themselves in the data. In this way, the main ideas and recurring themes in the data emerged. In the second stage, using prior thoughts, the literature, and information available in the interviews, the initial thematic framework was developed and discussed by the researchers in a series of iterative meetings, and finally the initial framework was developed and approved by the research team. In the third stage, the thematic framework was compared against the interview data, which was independently coded and agreed upon by two researchers. In this way, parts of the data or meaningful phrases of the text (codes) that were related to a specific theme of the thematic framework were identified. This process was repeated

several times for each interview. In the fourth stage, the abstracted data was entered into the thematic framework (a table was prepared for each theme with the interview data being placed in the rows and the sub-themes in the columns of the table). In addition, at this stage, by transferring the data to a combined table, an analysis chart was formed, and the relationship between the themes and sub-themes was identified. In the final stage, the themes were interpreted through an iterative process and the thematic framework was updated through an analytical process, and then the data were prioritized and interpreted over the existing background. All these five stages were done manually. ...

To improve the rigor of the study, we followed Lincoln and Guba's four criteria of credibility, dependability, transferability, and confirmability.<sup>19</sup> The credibility of the data was ensured by continuous engagement of the researchers with the data. For validation of the coded texts, they were given not only to other members of the research team, but also to the

participants who were requested to check the correct understanding of their perceptions. Constant evaluation of the data was done to ensure dependability. As far as transferability was concerned, key methodological elements of the study were fully explained. This involved the participants' demographic information, researcher's observations, techniques used in interviews, methods of collecting the data, and data analysis process. Confirmability was ensured by continuous and meticulous documentation of data collection and data analysis in all stages of the study from the beginning to the end.

### *Ethical Considerations*

The present study started after obtaining

approval from the Ethics Committee of Gonabad University of Medical Sciences, Iran (Ref.ID:IR.GMU.REC.1395.60). After the midwives were briefed on the objectives of the study and gave written informed consent to record the interviews, we started the interviews. Withdrawal from the study was allowed at any time, and the participants were ensured that their information would remain confidential.

## **RESULTS**

The age range of the participating midwives was from 30 to 53 years with a mean of  $43.29 \pm 7.57$ , and the range of their work experience was from 7 to 30 years with a mean of  $18.71 \pm 8.16$  (Table 2).

**Table 2:** Characteristics of the participants (N=17)

Participant Number	Age (Year)	Midwifery work experience (Year)	Education level	Professional role and workplace setting
P1	51	29	BS <sup>a</sup>	The head of the maternity ward (20 years) and expert in planning and management of midwifery affairs of university/Gonabad
P2	50	29	AM <sup>b</sup>	Midwife, maternity ward/Gonabad
P3	47	25	BS	Deputy in charge of the maternity ward/Gonabad
P4	34	12	MS <sup>c</sup>	Head of maternity ward (5 years)/Gonabad
P5	45	15	BS	Midwife, maternity ward/Gonabad
P6	36	12	MS	Midwife, maternity ward/Gonabad
P7	33	9	BS	Midwife, maternity ward/Gonabad
P8	30	7	MS	Midwife, maternity ward/Gonabad
P9	35	7	BS	Midwife at the maternity ward and expert in planning and management of midwifery affairs at university/Gonabad
P10	53	30	BS	Midwife at the maternity ward and clinical training instructor/Gonabad
P11	38	9	PhD <sup>d</sup>	Midwife at the maternity ward and faculty member of the midwifery department/Gonabad
P12	41	20	MS	Midwife at the maternity ward and faculty member of the Midwifery Department/Gonabad
P13	53	26	MS	Maternity midwife having midwifery office and a faculty member of the Midwifery Department/Ahvaz
P14	47	23	BS	Midwife having midwifery office and a faculty member of the Midwifery Department/Mashhad
P15	50	24	PhD.c <sup>e</sup>	Midwife having midwifery office and a faculty member of the Midwifery Department/Islamic Azad University/Tehran
P16	45	18	PhD.c	Midwife at maternity ward/Arak
P17	48	23	PhD.c	Maternity midwife having midwifery office and a faculty member of the Midwifery Department/Bushehr

<sup>a</sup> Bachelor's degree <sup>b</sup> Associate degree <sup>c</sup> Master's degree <sup>d</sup> Doctor of Philosophy <sup>e</sup> PhD candidate

In summary, based on the framework method analysis process, 546 open codes were derived from the interview data. After the codes were reviewed and similar codes were removed, there remained 195 codes. Similar codes were integrated yielding 81 sub-sub themes. Finally, the framework analysis process led to the emergence of eight main themes with 19 sub-themes, indicating the midwives' perceptions of the conditions affecting the implementation of the NCPP. These themes included 1: Responsive staff, 2: Characteristics of the parturient, 3: Recognition of midwifery role, 4: Teamwork,

5: The birthing environment, 6: Effective management, 7: Institutional and social context, and 8: Social education (Table 3). Table 4 as an example gives an overview of data reduction process for one of the themes (Social education).

*1. Responsive Staff*

The clinical competencies and attitude of the staff towards natural childbirth were identified under 'Responsive staff'. This theme includes three sub-themes: up-to-date knowledge, essential skills, and attitudes towards natural childbirth.

**Table 3:** Subthemes and themes emerged from the data

Sub-themes	Themes
Up-to-date knowledge Essential skills Attitude towards natural childbirth	Responsive staff
Belief in own ability The right to choose the mode of delivery Socio-economic status	Characteristics of the parturient
Transparency of duties and rewards Professional independence	Recognition of midwifery role
A sense of shared identity Goal-oriented interactions	Teamwork
Necessary equipment The physical environment The private environment	The birthing environment
Manager selection system Performance monitoring and evaluation	Effective management
The payment system Social values	Institutional and social context
Inclusive and continuous education Effective education	Social education

**Table 4:** Data reduction process overview for the social education theme

Sub-sub themes	Sub-themes	Theme
Educating the parturient Educating the parturient's husband and family Educating girls and boys at puberty Educating education practitioners Educating women with a history of cesarean Educating different socioeconomic classes people Education to childbirth and pregnancy Continuity in education	Inclusive and continuous education	Social education
The instructor's gaining trust of the trainees The instructor's use of communication skills Using mass media and social networks Creative and attractive teaching Production of educational content Persuasive teaching	Effective education	

### *1.a. Up-to-date Knowledge*

The participants emphasized keeping the knowledge of the staff involved in the birth process up-to-date by holding regular training courses: *“If we want the program to achieve its goals, midwives and obstetricians should participate in retraining courses, so they will be less resistant to changes.”* (P4)

### *1.b. Essential Skills*

Despite its importance in midwifery practice, almost all midwives did not consider the sole knowledge sufficient on its own and put emphasis on the skill of those involved in natural childbirth: *“Relying only on academic training, physicians and midwives won’t get the necessary preparation for giving birth. That’s why most of them are panic when they enter the delivery room and order a cesarean section because they don’t have enough skills and experience.”* (P8)

### *1.c. Attitude Towards Natural Childbirth*

The majority of the midwives believed that a positive attitude towards natural childbirth played a far more important role: *“Many obstetricians do not believe in natural childbirth, and this is transferred to the parturient. Many of the mothers wonder whether their doctor has given birth through vaginal delivery or not. They want to take example from them.”* (P13)

## *2. Characteristics of the Parturient*

‘Characteristics of the parturient’, such as the level of self-confidence, the ability to choose, and awareness play a significant role in achieving the goals of the NCPP. This theme includes three sub-themes of belief in own ability, the right to choose the mode of delivery, and the socio-economic status.

### *2.a. Belief in Own Ability*

The midwives were of the opinion that today’s dominant view, i.e., the medical view, has a negative effect on the success of natural childbirth, making mothers not be mentally and internally prepared for natural childbirth:

*“Today’s women do not believe in their own ability to give birth naturally. They often think they should give birth under the 100% care of a doctor and medical technology.”* (P16)

### *2.b. The Right to Choose the Mode of Delivery*

According to some of the participants, the right to choose the mode of delivery by the mother can give her a feeling of power and control over the delivery (P11 and P12). One of the midwives said: *“If the mother herself chooses a natural birth, she will more easily accept the pain and stress caused by the natural birth process and will be less impatient; as a result, there will be higher chances for a natural birth.”* (P14)

### *2.c. Socio-economic Status*

Most of the midwives believe that although families of socio-economically higher classes do not completely accept natural childbirth, the mother’s education has different effects on the choice of the type of delivery and the success of natural childbirth. Some midwives considered the mother’s higher education to be effective in promoting natural childbirth: *“A woman who is literate and to whom we give educational materials (videos, books, etc.) welcomes the natural childbirth and cooperates better during childbirth.”* (P1). On the other hand, a number of midwives saw higher education as an obstacle to natural childbirth: *“A mother with higher education does not like to suffer much pain or take risks; she thinks if she has a cesarean section, the risk and pain will be less.”* (P3)

## *3. Recognition of Midwifery Role*

Another factor that the midwives put emphasis on with respect to the importance of effective implementation of NCPP was transparency of duties and rewards, and professional independence, which have been organized under the theme of ‘Recognition of midwifery role’.

### *3.a. Transparency of Duties and Rewards*

Most of the midwives were of the opinion

that the job description and rewards of the professionals involved in natural childbirth needed to be clarified. *“The lack of clarity in some of the job descriptions and regulations in the delivery ward may be the only factor that prevents this program”*, said one of the midwives (P8). Another midwife commented: *“In this instruction, it is not specified who will be in charge of the delivery, or how much each person will be paid.”* (P17)

### 3.b. Professional Independence

According to the participants, one of the things that discouraged the midwives and reduced their motivation was their reduced professional independence in this program. As one of the midwives said: *“Based on this instruction, midwives’ work is gradually being taken away... at the moment of delivery, the doctor comes and performs the delivery,... this is the most difficult thing for me (tears welling up in her eyes)...the midwife wants to deliver the baby by herself.”* (P2)

### 4. Teamwork

Basically, the birthing process is a team effort. ‘Teamwork’ was reflected in the subthemes of a sense of shared identity and goal-oriented interactions.

#### 4.a. A Sense of Shared Identity

The participants in this study believed that all individuals including obstetricians, midwives, pediatricians, and even the orderlies should consider themselves as a whole unit: *“Everyone should consider himself/herself as “we”, so that natural childbirth can be promoted.”* (P13)

#### 4.b. Goal-oriented Interactions

The participants believed that for the NCPP to be successful, the team interaction should be formed around the main goal, which is maintaining the health of the mother. However, due to the dominance of hierarchical relationships, this important point has been disregarded. As one of them said, *“Instead of looking at it like a supervisor–subordinate*

*relationship, doctors and midwives should benefit from each other’s work experience and pursue the health of the mother and baby as a single goal,...but this is not the case.”* (P6)

### 5. The Birthing Environment

To support natural childbirth, ‘The birthing environment’ should be optimized physically, mentally, emotionally and socially both for the parturient and the staff. This theme includes three sub-themes of necessary equipment, physical environment, and private environment.

#### 5.a. Necessary Equipment

According to the participants, one of the important factors in NCPP was the presence of necessary equipment in the maternity ward: *“Any goal is achievable with a series of tools. For a natural delivery, the presence of equipment such as aromatherapy, heat and cold therapy, etc. is necessary to give confidence to the delivery team and encourage the cooperation of the parturient.”* (P7)

#### 5.b. The Physical Environment

Most of the participants highlighted the need to design the environment of the maternity hospital to look like home: *“The instruments around the mother should be covered. Because when the mother sees them, she’ll be stressed out, and this causes an increase in adrenaline and failure in labor progress.”* (P6) However, another midwife stated: *“If the environment of the maternity hospital becomes too homely and the equipment is not seen, the mother may start to worry and think that we do not have access to the necessary equipment.”* (P13)

#### 5.c. The Private Environment

The midwives stressed creation of a private environment for the mother: *“If implemented correctly, the LDR (Labor, Delivery, Recovery) system will let the mother wear her favorite clothes during hospitalization and listen to her favorite music. The stages of labor can be done in a private room next to her husband*

*or her favorite companion. This plays a very important role in making natural childbirth a pleasant experience and promoting it.” (P9)*

### 6. Effective Management

‘Effective management’ was a reflection of the midwives’ perception of the importance of the manager selection system and performance monitoring and evaluation.

#### 6.a. Manager Selection System

The majority of the participants believed that promotion of meritocracy in the selection of managers helps the success of the NCPP by creating management stability. One of the midwives who was on the verge of retirement said: *“The deputy of treatment was changed several times, followed by changing the head of the hospital...these rapid changes prevent the continuous and uniform implementation of the program.” (P6)*

#### 6.b. Performance Monitoring and Evaluation

According to most of the participants, the performance monitoring and evaluation system does not have the necessary efficiency to effectively implement the NCPP. One of the participants stated that *“statistics should be checked by the management; they should find out the problems, and see what percentage of cesarean sections could have been normal, so that things can be corrected.” (P10)*

### 7. Institutional and Social Context

Midwives’ perceptions reflected the two sub-themes of the payment system and social values in ‘Institutional and social context’ as interventions to promote natural childbirth.

#### 7.a. The Payment System

The majority of the midwives believed that financial incentives in NCPP fueled the motivation of employees: *“The fact that a financial incentive is included in this program has increased the motivation of midwives to attend natural childbirth.” (P2)*. However, at the same time, the participants also mentioned the negative aspects of financial incentives:

*“This program has pushed people and personnel towards money. The main goal is getting ignored; work ethics is being faded away.” (P10)*

#### 7.b. Social Values

The participants believed that the choice of delivery method was largely influenced by social values, and promotion of natural birth depended on its becoming a general value in society: *“The taboos associated with natural birth must be eliminated in society; there are many misconceptions people have about it, or they think the pain is unbearable.” (P9)* And another midwife said: *“Sometimes women want to give birth naturally, but their husbands oppose it because they are afraid that their wife or baby will be harmed.” (P8)*

### 8. Social Education

The participants linked effective implementation of the NCPP to ‘Social education’. This was reflected in the two sub-themes of inclusive and continuous education, and effective education.

#### 8.a. Inclusive and Continuous Education

Most of the participants believed that training should be continuous and include people from different walks of life. Some of them went even beyond this and said: *“Everyone should be trained, from managers...to even the hospital guards, all of them can help us. For example, if a high school principal comes here and is educated, after she gives birth, this will also affect both her students and her colleagues, and thus the whole society is educated.” (P6)*

#### 8.b. Effective Education

The participants believed that education would have an effect on the choice of mothers and ultimately on NCPP that is accompanied by the trainer’s own heart belief in natural childbirth and gaining the mother’s trust: *“The trainer’s own belief is very important... if they believe that natural childbirth is good, it will have a greater effect on mothers.”*

(P14). Another midwife commented: *“The more the trainer can gain the mother’s trust..., the more likely her attitude will change, and natural birth will be her first choice.”* (P5). A participant also believed that education is effective when using innovative and creative methods: *“...you see the advertisements of junk food; they are everywhere; you get attracted to them and buy their product.”* (P15)

## DISCUSSION

The factors influencing the implementation of NCPP based on the perceptions of midwives who participated in this study were summarized into the following eight themes: Responsive staff, Characteristics of the parturient, Recognition of midwifery role, Teamwork, The birthing environment, Effective management, Institutional and social context, and Social education. These emergent themes include a set of variables affecting the implementation process of health promotion programs identified in a previous review study.<sup>18</sup> Also, the factors identified in this study covered the general factors affecting clinical medical practice presented in Vincent’s framework.<sup>20</sup>

Overall, some of the factors affecting NCPP that were identified in the present study were also reported in the results of other similar studies.<sup>6, 12, 14-16, 17, 23, 24</sup> Despite major differences in terms of setting and participants, in all the above-mentioned studies, there is a common emphasis on supporting the midwives and midwifery profession, educating service providers and women, and adopting appropriate policies and regulations to reduce the rate of elective caesarean section and promote natural childbirth. The same emphasis is one of the main goals of NCPP in Iran and is reflected in the results of two review studies, which are consistent with this study’s results.<sup>8, 10, 25</sup>

The first theme that emerged in the study was responsive staff because the midwives believed that NCPP was influenced by the staff’s essential skills and their attitude towards natural childbirth. The midwives’

emphasis on the importance of labor pain management in promoting natural childbirth is consistent with the available evidence.<sup>26</sup>

<sup>27</sup> This is because the mother’s physical strength during natural childbirth is affected by the way pain is managed.<sup>28</sup> In addition, the midwives were of the opinion that any change in the obstetricians’ attitude towards natural childbirth would be reflected in the behavior of the expectant mothers. The midwives have emphasized that as long as obstetricians are not willing to promote natural childbirth, NCPP will not be promoted as expected; this is in line with the results of other studies that consider obstetricians as the key to solving the problem of increased cesarean section rate.<sup>16, 23</sup>

The characteristics of the parturient was identified as a factor influencing NCPP. The results of this study and a similar one indicate that the main requisite for natural childbirth is the parturient’s trust in her own physical strength and internal preparation.<sup>29</sup> However, today, due to more trust in technological approaches, the desire for cesarean section has alarmingly increased.<sup>7</sup> Also, in line with this study, a previous study found that giving the expectant mother the right to choose the type of delivery gives her a sense of power and more control over the delivery process, something that the midwives believed was almost ignored in the NCPP guidelines.<sup>26</sup> In addition, the present study and a previous one show the contradictory effect of the socio-economic status of the mother on her choice of the type of delivery, which can indicate complex relationships between a set of factors involved in the choice of the mode of delivery.<sup>30</sup>

Recognition of midwifery role was another emergent theme that is related to the transparency of duties and rewards of the delivery team, and professional independence. Consistent with a previous study in Netherlands, the midwives in this study maintained that the meaning of reward is not solely in a materialist sense but involves a wide range of freedom of action, work independence, and dignity of the

midwifery profession.<sup>31</sup> Participants have also pointed out that the NCPP is discriminatory, discourages midwives, and undermines their dignity, which has also been reported in similar studies.<sup>17, 24</sup> Although midwives have more independence in some countries such as Sweden, the Netherlands, and the United Kingdom, the WHO mentions lack of midwifery norms and standards as one of the common problems of midwives.<sup>16, 32</sup> It, therefore, seems that the redesigning the task factors can contribute to the success of NCPP by restoring the professional independence of midwifery.

In this study, the participants have stated that effective teamwork, which instills into the mother the feeling that a coherent and efficient team accompanies her in the process of natural childbirth, is critical to the success of NCPP. While the midwives believed that the mother's acceptance of natural childbirth was affected above all by the quality of the relationship between the midwife and the obstetrician, they stressed that the hierarchical physician-midwife relationship was not suitable for effective teamwork; this was confirmed in other studies.<sup>16, 25, 31</sup> However, accumulating evidence suggests that the main root of ineffective teamwork lies in the interprofessional and interdisciplinary conflicts between midwives and obstetricians.<sup>14, 32</sup>

The birthing environment was identified as another factor affecting NCPP in this study. The participants believed that environmental stressors such as various instruments could have adverse effects on the birthing process. Another study introduced the equipment as an obstacle to physiological birth and states that the more "human" and "homely" the delivery room is designed, the more intimacy and peace it gives to the mother, making the natural delivery process look "more normal".<sup>28</sup> In addition, our results indicate that the existence of equipment and the use of pain reduction methods are satisfactory and lead to the formation of a positive experience of childbirth, which is confirmed in previous

studies.<sup>15, 27, 32, 33</sup> It seems that what is shared in the studies is attachment of importance to the design of the delivery environment that can create a balance between human and technology at the same time.

Midwives mentioned effective management at hospital level as another factor influencing the NCPP. Among this factor, they emphasized the importance of a system for appointing managers and the competence and stability of managers, as well as the necessity of monitoring and evaluating hospital performance. Although the literature provides little evidence, in the few available studies, modification of regulations, standardization of care, and supervision of professional performance have been reported as strategies to promote natural childbirth.<sup>14, 23, 26</sup> Also, in another study, a solution to reduce cesarean delivery involved establishing a performance monitoring and evaluation system integrated with the payment system and providing continuous feedback based on the analysis of labor performance.<sup>28</sup> What is common among the results of these studies is that aligning the decisions and managerial actions of the hospital with the requirements of the NCPP is an obvious necessity.

Another main theme in this study was the institutional and social context, which affects the healthcare system at a macro level. The study participants considered the payment system to be one of the most important institutional and social factors related to NCPP. Other studies have also mentioned the most fundamental requirements for the effective implementation of NCPPs to be an appropriate payment system and financial controls, preferential tariff for natural birth versus cesarean section, and adoption of smart monitoring policies.<sup>10, 14, 23</sup> Although reforms in the payment system have led to favorable effects such as a positive correlation between the increased tariff for natural childbirth services and the increased rate of natural childbirth, this has brought new challenges at the same time.<sup>24</sup> According to the midwives, among these challenges are paying too much

attention to the quantity of natural childbirth (which has the potential to reduce the safety of the mother and the baby) and increase in the income gap among maternity care staff (which leads to an increase in the conflict of interests). Given the ambiguities associated with the effects of this double-edged sword, additional studies are still needed to shed more light on this.<sup>13</sup>

Social education, the last theme in the study, refers to the need for inclusive, continuous, and effective education of all NCPP stakeholders. In line with our results, the importance of education on the NCPP has been mentioned in several studies. Some of these studies insist that the trainers need to observe the concept of 'walk the talk'; some focus on the necessity of the inclusiveness of education, some others highlight the importance of continuing education to modify negative beliefs, and some focus on the effectiveness of education based on innovative methods.<sup>8, 23, 24, 34</sup> However, the results of some studies have shown that the mere presence of mothers in education classes does not guarantee the choice of natural childbirth.<sup>3, 29</sup> It should be kept in mind that social education is more than just educating individuals. Rather, it should be viewed as a socio-cultural and longitudinal issue, and not simply a temporary decision during the birth process.<sup>10, 26</sup>

Despite its strengths such as interviews with participants from six universities of medical sciences in Iran, this study had a number of limitations. The study focused on the perceptions of only one of the actors in maternity care, i.e., the midwives. Therefore, its results cannot represent the viewpoints of all professionals involved in NCPP. Also, since all the participants were employed in the public sector, the results do not necessarily include the opinions of all midwives, including those working in private hospitals. However, the results of our study have important implications for policy, practice, and further research to promote natural childbirth. First, evaluating the performance of public and private hospitals in relation to

NCPP can clarify the shift in the increasing rate of cesarean section from the public to the private sector, and also provide the possibility of benchmarking best practices by other hospitals. In addition, since the results of this study highlighted social education as one of the factors affecting NCPP, interested researchers can contribute to strengthening social education through community-based research and action.

## CONCLUSION

By delving into the perceptions of midwives, the present study identified a complementary and related set of factors affecting the effective implementation of this program, which cover a wide range of staff and parturient characteristics to the social context. Accordingly, it seems that the success of NCPP also depends on the accountability of all stakeholders, from health system policymakers to maternity care providers. In addition, the results of this study indicate that the promotion of natural childbirth requires community-based research and action in line with social education, an education the importance of which the current population growth policies in Iran is highlighted.

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