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Promoting the participation of low-risk pregnant women in the child birth process by developing a birth plan: The protocol of an action research study

Zahra Mohebbi-Dehanvi, Maryam Hajihashemi[1], Shahnaz Kohan[2]

PhD Candidate in Reproductive Health, Department of Midwifery and Reproductive Health, School of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran, [1]Associate Professor of Female Pelvic Floor Medicine and Surgery, Department of Obstetrics and Gynecology, School of Medicine, Shahid Beheshti Hospital, Isfahan University of Medical Sciences, Isfahan, Iran, [2]Professor of Reproductive Health, Department of Midwifery and Reproductive Health, School of Nursing and Midwifery, Reproductive Sciences and Sexual Health Research Center, Isfahan University of Medical Sciences, Isfahan, Iran

Address for correspondence:
Dr. Shahnaz Kohan, Professor of Reproductive Health, Department of Midwifery and Reproductive Health, School of Nursing and Midwifery, Reproductive Sciences and Sexual Health Research Center, Isfahan University of Medical Sciences, Isfahan, Iran.
E-mail: kohan@nm.mui.ac.ir

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Abstract:

BACKGROUND: The birth plan reflects the preferences and expectations of women in the delivery process and can be designed with the participation of women and her partner and implement as a basis for midwifery care during childbirth. This research was designed to promote the participation of low-risk pregnant women in the child birth process by developing a birth plan.

MATERIALS AND METHODS: The present study is a participatory action research designed in a single specialized, main maternity hospital in Isfahan, Iran. This study was conducted in four stages proposed by the Kemmis, including planning, action, observation, and reflection with the participation of all midwives, gynecologists, and managers who involved in childbirth.

CONCLUSIONS: Considering the importance of childbirth as an opportunity for participation and empowerment of women, it seems that designing a birth plan based on the preferences of these women and all people involved in this process can strengthen women's participation in child birth process.

Keywords:

Action research, birth plan, birth process, low-risk pregnancy, participation, protocol background

Significant physical, psychological, and social changes occur during pregnancy, and the birth of a healthy baby depends on the health of the mother.[1,2] Therefore, improving the health status of mothers and empowering them is one of the prerequisites for the development of communities and one of the basic pillars of health care.[2] Women's access to quality health services along with increasing their awareness and skills through education and counseling during pregnancy leads them to choose the method of natural childbirth, deal with problems during pregnancy and postpartum, prevent the occurrence of mortality, and improve their health.[3-5] On the other hand, proper interaction of healthcare providers with the mother and active participation of the mother in the process of labor and delivery could improve their experience. Therefore, it is necessary for healthcare providers to pay attention to preferences and desires of the mother during labor and delivery by providing sufficient information to the mother and companions, giving the mother the right to choose and decide in the process of labor and delivery, to provide a positive experience of childbirth in mothers.[6-8] One way to promote motherhood is to design a birth plan. Midwives can facilitate mothers' empowerment, activation, and interaction by teaching them the choices available, as well as helping their mother and family write down their choices in a formal birth plan.[9] The birth plan is a written document in which a pregnant woman, after receiving information about

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pregnancy, delivery methods, and postpartum care, according to her personal values and desires, requests to participate in her care.[10-12] In fact, the birth plan focused on clinical interaction between pregnant women and midwives, in the field of healthcare services, and is designed with the participation of the women and her partner during pregnancy.[13] This document reflects the preferences, expectations, and fears of pregnant women about the birth process. The birth plan facilitates women's communication with service providers, improves the satisfaction of pregnant women, and strengthens their participation and decision making in the delivery process.[14-17]

The study of Hidalgo-Lopezosa *et al*.[18] (2017) showed that the use of a birth plan leads to a decrease in the rate of cesarean section and an improvement in the newborn's Apgar score and the pH of the newborn's umbilical cord. Birth plan can also be an effective tool to support the process of natural and physiological childbirth, better communication with specialists, more control of pregnant women over the process of childbirth, better results for women and childbirth and more satisfaction.[19] It seems that having a birth plan in accordance with the global definition and its standards has many positive effects on the results of childbirth and women's empowerment.

Social, international, and reproductive rights emphasize access to programs that allow pregnant women to participate actively and confidently in their birth and postpartum process. Despite the importance of the birth plan and women's participation in the birth process, in preventing problems such as unnecessary cesarean section, fear of natural childbirth, this program has not been implemented in Iran so far. Since many people are involved in the decision-making process of the type, place of delivery, and care, it is tried to explain the experiences and opinions of all people related to the delivery process with the participatory action research approach. Then, with their help, strategies to promote the participation of women with low-risk pregnancies in the process of delivery and after delivery should be identified, implemented, and evaluated. It is hoped that the result of this study was a step toward improving the health of mothers.

Materials and Methods

Study design and setting

In this study, participatory action research method was used. The purpose of participatory action research is to change social activities and structures that are irrational, unjust, and unsatisfactory. In this research method, participants are encouraged and facilitated to improve care by identifying existing problems. The nature of this method is to create positive change, and with the active participation of stakeholders as well as the reflection of opinions and ideas, a suitable environment is provided for lasting changes to improve performance.[20]

Study participant and sampling

This participatory action research was performed in the main and specialized maternity hospital of Isfahan, based on the Kemmis model.[20,21] This four-step model includes planning, action, observation, and reflection.

Step 1) Planning: In this stage, during a qualitative study with the approach of conventional content analysis and literature review, the existing challenges and appropriate strategies to promote the participation of low-risk pregnant women in the delivery process during multiple sessions, focus group, individual interviews, and observations with the participation of all staff, students, administrators, and mothers involved in the delivery process are explored, and birth plan was designed.

Participants: Maternal and Child Health Managers (Head of Maternal and Child Unit, Deputy of Treatment, Head of Hospital, Director of Midwifery, Director of Gynecology, Metron, Educational and Clinical Supervisor), Obstetricians, all midwives of the Obstetrics Department, clinical midwifery instructors, midwifery students, residents of obstetrics and gynecology mothers (low-risk pregnant women who refer for delivery) and their companions who voluntarily and with informed consent participate in the research. The selection of participants was purposeful.

Research environment: The research environment is Shahid Beheshti Hospital in Isfahan.

Data collection tool and technique

Methods of data collection: The method of data collection in this stage includes observation, individual interview, and focus group discussion. In order to protect the rights of the participants before the interview sessions, the researcher, after introducing herself and the research objectives, determines the time and place of the interview with the participants. The duration of the interview was determined by considering the amount of information and the desire of the participants. Interviews are conducted and recorded with the help of the interview guide after obtaining permission from the participants.

Observation: Observation is one of the methods of data collection in qualitative studies. In this study, the researcher, who has a history of midwifery training in that hospital, was present in different shifts and departments in the hospital. Observation with relative participation was used. Data collection will start from the time of admission of women in labor and will continue

until 6 hours after delivery, and all care functions in the labor and delivery process were observed.

Focused group discussion: In order to coordinate with the participants in the focus group, their free time was obtained through phone calls or in-person visits. Focused group discussion in the present study lasted 60–120 minutes. Each session was attended by 6–10 people. Data collection continued until the data is saturated. Participants in the focus group were homogeneous. The discussion was led by the researcher, and one assistant researcher was the secretary of the meetings (Fieldnote taker).

Individual interview: Due to the fact that in the present study, it will not be possible for all participants (gynecologists and officials) to attend focus group discussions due to their busy schedules, so in order to complete the information, the semi-structured individual interview method was used.

Sample Interview Guide Questions for Service Providers/ Managers:

1. How do you evaluate the usual care method in the maternity ward for low-risk mothers?
2. How can low-risk pregnant women be involved in the delivery process?

Sample interview guide questions for pregnant mothers:

1. What do you expect from your health system and those around you during your hospitalization and delivery?
2. Do you want to participate in your childbirth and postpartum care?
3. How can increase your participation in the delivery process?

Data Analysis Method: The analysis of the findings of the qualitative stage of this study was performed immediately after each interview, observation, or group discussion using the conventional content analysis method of the Graneheim approach.[22] First, all the data is written and reviewed, and then the units of meaning are identified. The general concept of each of these units of meaning will then be summarized in a new column called the Compact Meaning Unit. Important and key phrases of the single meaning column were encoded. In this way, all the text was available as extractive codes. Similar codes will then be merged to form subcategory that are more comprehensive and abstract. The subcategories led to the formation of subclasses and finally the main classes. To confirm the trustworthiness of the data, we evaluated four criteria proposed by Lincoln and Guba.[23,24] Prolonged engagement in data gathering, maximum variation, peer checking, and member checking were used to confirm the data credibility. Also, the experiences of the second and third authors with this method improved the data credibility. Confirmability was also improved by performing the full description of the participants in terms of characters, culture, context, and process of the analysis, using purposive sampling and observing maximum variation. External auditing by two qualitative researchers was performed to provide dependability. For transferability, the extracted categories were given to three individuals with the characteristics of participants who were not involved in the study, and their judgment was sought about the similarity between the results of the study and their experiences to achieve a good agreement.

Literature review: After analyzing the qualitative data and extracting the main categories and subcategories, the literature review was done with the aim of evaluating the experiences of other researchers in designing and applying the birth plan. The keywords promotion of participation, participation, women with low-risk pregnancies, childbirth, postpartum, birth plan, and action research were searched in Scopus, PubMed, Web of Science, Science direct, Cochrane, ProQuest, CINAHL, IRAN MEDEX, Magiran, SID, MEDLIB databases from 2010 to 2021.

At the end of this stage, the findings of qualitative study and literature review were reviewed, and the general birth plan was developed with the consensus of participants.

Step 2) Action (implementation of the birth plan) After examining the available facilities in the research environment, the birth plan was compiled. This step involves taking action and intervention that may lead to improvement.[21] At this stage, after obtaining the necessary permits and holding several focused group meetings with managers, staff (doctors, midwives, nurses, etc.), residents, midwifery students, obstetrics agreed to perform their role and will acquire the necessary skills and preparations by the research team.

The individual birth plan designed according to the conditions of each woman as well as the needs and requests of them and their companions by the researcher in collaboration with the senior resident and the midwife at the time of admission of the mother in Beheshti Medical Center in Isfahan and provided to participants for implementation.

Step 3) Observation In the observation phase, changes are observed simultaneously with the implementation of actions, and tools such as questionnaires can be used to

ensure that appropriate scientific methods are followed and the results are meaningful. Observation and action are often performed simultaneously.[21] In this study, simultaneously with the implementation of the birth plan, the average scores of empowerment, satisfaction, delivery experiences, and receiving respective maternal care were determined using a cross-sectional descriptive study. The study population will include all low-risk pregnant mothers who have informed written consent to participate in the study and have birth plan during childbirth in Shahid Beheshti Hospital in Isfahan. Samples are selected as convenience, and their number was calculated based on similar studies and using the sample volume formula with a 95% confidence level (about 130 people).

Research tool: In this part of the research, a questionnaire was used to collect information, which includes a four-part questionnaire, which includes: demographic-social and obstetric characteristics, Respectful Maternity Care Scale (RMC), Childbirth Experience Questionnaire (CEQ2.0), and Mackey Maternity Satisfaction Questionnaire.

Respectful Maternity Care Scale (RMC) consists of four areas and 15 items. Questions are scored in the Likert scale from strongly agree (score 5) to strongly disagree (score 1). The validity and reliability of this questionnaire have been confirmed in the study of Ghanbari-Homayi *et al*.[25] In the present study, Cronbach's alpha coefficient was used to confirm the reliability.

Childbirth Experience Questionnaire (CEQ2.0) consists of four areas and 25 items. Questions are scored in the Likert scale from strongly agree (score 5) to strongly disagree (score 1). The validity and reliability of this questionnaire have been confirmed in the study of Ghanbari *et al*.[25] In the present study, Cronbach's alpha coefficient was used to confirm the reliability.

The Mackey Maternity Satisfaction Questionnaire consists of 34 questions in four areas. Questions in the Likert scale are rated from very dissatisfied (score 1) to very satisfied (score 4). The validity and reliability of this questionnaire have been confirmed in the study of Ghanbari-Homayi *et al*.[25] In the present study, Cronbach's alpha coefficient was used to confirm the reliability.

Data analysis: The collected data was encrypted and entered into SPSS software version 22. First, the normality of the data was checked by Kolmogorov–Smirnov test, and then they were examined by descriptive and analytical statistical methods (depending on whether the variables are normal or abnormal).

Step 4) Reflection: This step is used to reflect on the plan, actions, and observations. After this guided reflection, the researchers review the original plan based on the data.[26]

During the implementation of the birth plan, formative reflection, and after the implementation of the program, the final reflection is done by various methods such as evaluating the participants' feedback using observations, review meeting and interviews, how to implement the program and problems and reinforcers is evaluated, and the results were used to review the program developed for the next loop.

Observation and taking field note: The researcher with the participants in the research and also some people who are not participants (evaluation by colleagues) recorded their observations (how maternity and postpartum care, staff relationship with mothers' delivery.,) in the field of study in different situations and times the implementation of the birth plan, in order to examine the challenges and problems of the implementation of the program. This data, along with other data collected in the study, is continuously analyzed.

Review meeting: Holding regular meetings of the research team with participants, from the beginning of the study to its final stages, is one of the effective and efficient ways to obtain comments, views, suggestions, and criticisms of participants. These meetings are held at intervals of 2–3 weeks.

Explaining the experiences of the participants: Regarding the effectiveness of the program after its implementation in a qualitative approach, the experiences of the participants are explained. For this purpose, data is collected through focus group discussion and individual interviews, who involved with birth plan applying.

Interview guide questions

How do you evaluate the implementation of the birth plan?

How much of your expectations have been met from implementing the birth plan?

In your opinion, what facilitators can be used in the better implementation of the program?

The accuracy of action research data was maintained by three methods of logical, critical, and reflective validity.[20-24] In this study, in order to strengthen the logical validity, continuous analysis was performed simultaneously with data collection. Also, in all stages, by holding meetings and conducting interviews, efforts were made to identify contradictions and complexities.

Critical validity is related to the analysis of the change process. Considering that in action research, following the change made by the stakeholders in the process, they are involved and suffer special pressures. In this regard, it is necessary to present the goals to the participants and eliminate the physical and mental problems created with material and spiritual. In this study, we will try to consider these cases as well. Reflective validity is for the researcher trying to prevent the occurrence of biases and conjectures. In this study, we will try to prevent biases and conjectures by reflecting the results to the participants and making corrections by the researchers and the continuous presence of the research team in order to create a correct understanding of the situation and increase the research trust capabilities. Accuracy indicates the stability of data analysis and interpretation and the reliability of the collected data.

Ethical consideration

The initial design of this research has been approved by the Vice Chancellor for Research of Isfahan University of Medical Sciences (ethical code IR.MUI.NUREMA.REC.1400.064). In order to conduct this research, first a research and a letter of introduction from the Faculty of Nursing and Midwifery, Isfahan University of Medical Sciences Vice Chancellor for Research was obtained to present to the officials of Shahid Beheshti Hospital. Written informed consent was obtained from all participants at each stage of the research. Participants were assured that participating in the research will not pose a risk to them, their information will remain confidential, and they can withdraw from the research at any stage. In order to maintain the confidentiality of the information, a code was assigned to each participant.

Discussion

According to studies by researchers, the birth plan can have positive effects on fetal, maternal, and women's empowerment outcomes. In this regard, the study of Hidalgo-Lopezosa *et al*.[18] (2017) showed that by increasing compliance with the birth plan, the rate of cesarean section decreases and the results of Apgar score and umbilical cord pH improve. They also stated that the birth plan can be an effective tool to support the process of natural and physiological childbirth, effective communication with specialists, more control of pregnant women over the process of childbirth, better results for women and childbirth, and greater satisfaction with childbirth. The study of Farahat *et al*.[19] (2015) also stated that the use of birth plan increases mothers' satisfaction and their positive experience of labor and childbirth. Having a birth plan in accordance with the global definition and its standards seems to have many positive effects on childbirth and women's empowerment.

Therefore, designing and implementing a birth plan and providing maternity care to women along with increasing their participation and empowerment in a regular and effective program by creating opportunities to express the expectations, preferences, and needs of pregnant women toward the delivery process, desires and deepening relationships, trust and respect between women and healthcare providers and increase women's participation can lead to a sense of control over the delivery process, increase women's satisfaction and pleasant experience of the delivery process, and strengthen the ability of pregnant women. Hoping to lead to proper interaction of healthcare providers with the mother, active participation of the mother in the process of labor and delivery, improving delivery experiences, making natural childbirth pleasant, increasing information of mother and companions, giving mothers the right to choose and decide on labor is ultimately a positive experience of childbirth.[13-19]

Therefore, it seems that if the birth plan is successful, it can help improve the health of mothers and babies by reducing the unpleasant experiences of childbirth. If this program is effective, it can be included in maternity and postnatal care instructions in the profession of midwifery and obstetrics in order to employ maternal and infant healthcare providers. Considering the importance of childbirth as an opportunity for participation and empowerment of women, it seems that designing a birth plan based on the preferences of these women and all people involved in this process can strengthen women's participation in delivery process.

Limitation and recommendation

This study was conducted during the time of Covid-19; for this reason the comprehensive presence of companions at the patient's bedside will be problematic in some cases, and due to this, it is recommended to conduct the study after Covid-19 as well.

Conclusion

Considering the importance of childbirth as an opportunity for participation and empowerment of women, it seems that designing a birth plan based on the preferences of these women and all people involved in this process can strengthen women's participation in delivery process.

Availability of data and materials

Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

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The present study is a proposal for a PhD dissertation on reproductive health approved by the Vice Chancellor

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Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

References

1. Rajabi-Naeeni M, Tizvir A, Moghimi D. Normal Vaginal Delivery or Caesarian. 1st ed. Karaj: Meraj Publication; 2015.
2. Emami-Oreh F, Mosallaee M, Rajabi-Naeeni M. Training for Safe Motherhood. 1st ed. Karaj: Meraj Publication; 2011.
3. Sustainable Development Goals (SDGs). World Health Organization; 2017. Available from: http://www.who.int/sdg/en/.
4. World Health Organization. Department of Gender, Women and Health. Women's Empowerment and Gender Equality: Essential Goal for Saving Women's Lives. Switzerland: World Health Organization; 2008.
5. Abbaszadeh F, Bagheri A, Mehran N. Quality of life in pregnant women. Payesh 2009;9:69-75.
6. Byrne MD. Engaged: The potentially rocky marriage of patients and their digital data. J Perianesth Nurs 2014;29:242-5.
7. Guglielmi CL, Stratton M, Healy GB, Shapiro D, Duffy WJ, Dean BL, Groah LK. The growing role of patient engagement: Relationship-based care in a changing health care system. AORN J 2014;99:517-28.
8. Le PN. Patient engagement solutions: Why physicians should care. Health Manag Technol 2014;35:18-9.
9. Longton S. Facilitating safety through patient engagement. Nephrol Nurs J 2014;41:443-4.
10. Rulon V. Obtaining quality healthcare through patient and caregiver engagement. J Am Health Inform Manag Assoc 2015;86:48-51.
11. Spaich S, Welzel G, Berlit S, Temerinac D, Tuschy B, Sutterlin M. Mode of delivery and its influence on women's satisfaction with childbirth. Eur J Obstet Gynecol Reprod Biol 2013;170:401-6.
12. Jamilian M, Mobseri Sh, Vakilian K, Jamilian H. Effect of childbirth preparation Classes on the duration of admission and satisfaction of mothers. SJIMU 2013;21:44-50.
13. Suárez-Cortés M, Armero-Barranco D, Canteras-Jordana M, Martínez-Roche ME. Use and influence of delivery and birth plans in the humanizing delivery process. Rev Lat Am Enfermagem 2015;23:520-6.
14. Welsh J, Symon A. Unique and proforma birth plans: A qualitative exploration of midwives' experiences. Midwifery 2014;30:885-91.
15. Aragon M, Chhoa E, Dayan R, Kluftinger A, Lohn Z, Buhler K. Perspectives of expectant women and health care providers on birth plans. J Obstet Gynaecol Can 2013;35:979-85.
16. Rulon V. Obtaining quality healthcare through patient and caregiver engagement. J AHIMA 2015;86;48-51.
17. Anderson CJ, Kilpatrick C. Supporting patients' birth plans: Theories, strategies and implications for nurses. Nurs Womens Health 2012;16:210-8.
18. Hidalgo-Lopezosa P, Hidalgo-Maestre M, Rodríguez-Borrego MA. Birth plan compliance and its relation to maternal and neonatal outcomes. Rev Latino-Am Enfermagem 2017;25:e2953.
19. Farahat AH, Mohamed HES, Elkader ShA. Effect of implementing a birth plan on womens' childbirth experiences and maternal and neonatal outcomes. J Educ Pract 2015;6:24-31.
20. Flick U. The SAGE Handbook of Qualitative Data Collection. 2018.
21. Miles MB, Huberman M, Saldana J. Qualitative Data Analysis: A Methods Sourcebook. 4th ed. SAGE Publications, Inc; 2018.
22. Hajizadeh K, Vaezi M, Meedya S, Mohammad-Alizadeh-Charandabi S, Mirghafourvand M. Respectful maternity care and its related factors in maternal units of public and private hospitals in Tabriz: A sequential explanatory mixed method study protocol. Reprod Health 2020;17:9.
23. Doosti-Irani M, Abdoli S, Parvizi S, Seyedfatemi N, Amini M. An umbrella named action research. Iranian J Med Educ 2012;11:12-23.
24. Lincoln YS, Guba E. Naturalistic Inquiry. California (US): Sage Publications; 1985.
25. Ghanbari-Homayi S, Denker A, Fardiazar Z, Asghari-Jafarabadi M, Charandabi SMA, Meedya SM. Validation of the Iranian version of the childbirth experience questionnaire 2.0. BMC Pregnancy Childbirth 2019;19:465.
26. Miles MB, Huberman M, Saldana J. Qualitative Data Analysis: A Methods Sourcebook. 4th ed. SAGE Publications, Inc; 2018.