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Original Article

Viewpoints of Health care Providers About the Integrated Maternal Healthcare Program: A Qualitative Study

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ABSTRACT

Background: Maternal health program is among the most important health services. Providing convenient and high quality services, improve the mothers' health and satisfaction. This study was aimed to determine Health care providers` Viewpoints about the Integrated Maternal Healthcare Program.
Methods: The present qualitative study was performed using content analysis method. Data were collected by a semi-structured interview with midwives, physicians and relevant administrators from health department of Qazvin University of medical sciences. Purposive sampling technique was continued until conceptual saturation of information. Data analysis was done simultaneously with data collection.
Results: Data analysis showed three main themes of "*program shortcomings"*, "*requirements for development" and "program facilitating points"* along with ten subthemes.
Conclusion: It seems that the quality of maternal health services is more favorable with new program compared to old program. But there are problems in the implementation such as long period between visits or delay in requesting sonogram in the first trimester. Therefore continuous re-evaluation and correction of program will improve quality of the program and subsequently maternal health.
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Introduction

Improving maternal health is one of the fundamental pillars in healthcare affairs. Maternal health by increasing access to prenatal, gestational, and postpartum cares, is an initial policy in many countries (1). To achieve these goals, it is necessary to improve the quality and access to maternal healthcare services for the early identification of mothers at risk, and their timely referral to healthcare centers (2). According to the World Health Organization (WHO) report, 99% of total maternal deaths occur in developing countries in the world and half of them are located in Africa, that so far have been participated in the integrated maternal health care program (3). According to the previous studies, prenatal cares can be started before or early in pregnancy and continue until the end of pregnancy or after delivery. Some studies recommended continuing prenatal cares up to one year after delivery to improve family health (4).

The WHO program of maternal health focuses on screening, risk assessment, and tests for the primary treatment of preventing preeclampsia and preterm labor (5). The guideline is provided as a standard package for prenatal, gestational, and postpartum services integrated into family doctor plan

and health team; it is also used as a part of curriculum by general practitioners, midwives, and other involved groups (6, 7).

The current study aimed at explaining the health care providers' viewpoint about the integrated maternal health care program in health care clinics in city of Qazvin, targeting to improve maternal health of the community by reporting weaknesses and strengths of the program to the related institutions, based on the viewpoints of authorities and health care providers.

Methods

The current qualitative study was conducted based on the conventional content analysis, and explained health care providers` viewpoints in the integrated maternal health care program in health care centers of Qazvin city from 2014 to 2015. The targeted sampling method was used and also continued up to the conceptual saturation of information. To collect data, in-depth semi-structured interviews and focus group discussion methods were used. A total of fourteen Participants including eight midwives and three physicians and three authorities of maternal healthcare program were interviewed. Following interview with twelve of the participants, researchers found that data were saturated and no new semantic code was acquired. Two more interviews confirmed this data saturation. A focus group discussion was held with participation of three authorities of maternal healthcare program in the deputy of health. Participants were selected from different districts, at least one clinic was selected from each district and its health care provider, usually midwife, were interviewed. Before enrollment of participants into the current study, the aims of the study were explained to them and accordingly the written consents were obtained. Interviews were performed in the health care centers, the workplace of subjects, in a quiet room, considering the privacy of participants. Interviews lasted from 30 to 60 minutes, based on the willingness of the subject.

Data was analyzed using Graneheim & Lundman method. Each interview was listened and transcript within 24hours after interview. Then the entire text was read several times to achieve an overall understanding of its content. To determine the semantic units, the text of each interview was reviewed line by line and word by word and the main sentence concepts on each line or each paragraph were specified. The semantic units were summarized and named with the primary codes. The primary codes were categorized in subcategories and categories based on the concepts related to the similar phenomena. Finally, the themes were extracted based on the concepts in these categories (8). In this process 370 primary codes, 25 main codes, 10 subthemes and three themes were extracted.

Validity of data was obtained through long-time working on the study, member checking, and peer checking. To perform member checking, transcripts of the interviews and the extracted codes were given to two participants and their agreement with the idea of author was evaluated.

Results

Results of the current study were obtained by analyzing fourteen interviews. Demographic data of participants are shown in Table 1. Data analyses led to emerging of three themes entitled as "Program facilitator points", "program shortcomings" and "Requirements for development". Summary of results are shown in Table2.

Theme1. Program facilitating points

Disciplined and coordinated care based on the new program, increasing the accuracy and quality of care and existence of complete forms of patient evaluation and follow-up were facilitator points which "*Increased coordination and quality of care*".

One of the main features of the integrated maternal healthcare program, noticed by all interviewees, was providing disciplined and coordinated healthcare services and therapeutic measures based on new program. A midwife with 14 years of experience expressed her idea:

"*The new program is more regulated and integrated compared to the previous program…the new program provided a uniform method to care mothers in all healthcare centers*."

More accuracy and quality in providing healthcare services: Since the new program is based on scientific basics; regulation and coordination in caring policies and therapeutic measures increased the accuracy and quality of midwifery services. Long interval between visits during pregnancy was the other reason for increasing the quality of cares, which was noticed by some midwives. An authority in the deputy of health in Qazvin province, Iran, also stated that*:*

"The maternal mortality rate was 22 per 100 000 in Iran; and 9.8 per 100 000 in Qazvin province in 2011. The same rate was also in 2012; much better than the rate of the country. It is due to the increased quality of caring and also follow-ups by administrative staff and colleagues in the maternal caring office in the hospital."

The new regulated program with scientific basics made it to have more complete and comprehensive caring content compared to the previous program. Many of midwives recommended revising the new program from practical viewpoints, although they pointed out that the new program is more complete. A midwife with 8 years of experience added:

"Totally, it is a good package and also increases our accuracy compared to the previous one…."

One of the strengths of the new program that have been indicated by all interviewees, was complete evaluation and follow-up forms, which increase the accuracy of healthcare providers, uniformity in caring and training policies. One of the physicians with 10 years of experience expressed his idea:

"The advantage of the new program and its forms is that they are very complete and in the first visit we can find all necessary information immediately. I think it is a good package."

Table1. Demographic Data of the Study Participants

Position	Number (%)	Age in Year Mean (SD)	Working Experience in Year Mean (SD)
Midwife	8 (57.2)	39.37(3.11)	12.62 (3.66)
Physician	3 (21 .4)	36.66 (1.15)	9.33 (1.15)
Maternal health authorities	3 (21.4)	42.53 (3.4)	16.5 (4.4)

Table 2. The Process of the Formation of Main Codes, Sub Themes, and Themes

Main codes	Sub theme	Theme
Disciplined and coordinated care and treatment measures based on the new program	The increased coordination and quality of care	Program facilitating points
Increasing the accuracy and quality of work in care with the new package		
The existence of complete forms of patient evaluation and follow-up		
Being Better and more complete than the old program	Reflection of Science in the Care	
Organized based on scientific principles		
Long lasting first visit	Disturbed midwife - client relationship	program shortcomings
Reduced frequency of visits A long period between first and second visits		
Need to record a lot		
time-consuming nature of care based on booklet		
Many referrals	Referral: Necessity or care in vain	
Clients troubled referred to the busy referral center		
No need to do some care		
No need for confirmatory sonogram at the beginning of pregnancy	Improper timing of routine Sonograms	
Time lags between requires sonograms		
High volume of training topics especially in the first session	Training for registration in the system not for the client	
Increasing the probability of neglecting the training		
Not enough explanation for some pregnancy complaints, complications, and interpretation of the tests.	Clarification of confusing points in care providing	Requirements for development
Time consuming and confusing solutions to mothers' complaints		
No single instruction book associated with each session		
Coordinating private sector to provide care based on new program	Advocacy	
Gaining legal support on specific occasions		
Avocation of insurance support to accept the application of tests and sonogram prescribed by midwives		
Designing national Monitoring tool	Enhancing evaluation	
Design monitoring service on how clients are trained		
Tailoring care based on areas deprivation and time needed to access specialized services	Matching care plan for special circumstances	

One of the authorities in the deputy of health in Qazvin province also believed that:

"If midwives follow the program based on the forms, nothing will be neglected; since they don't need to refer to their memories. Everything is ready and available; that is so good."

In the previous program, there was no complete and specific form to evaluate mother and take her history. Therefore, healthcare providers had to rely on their memories and take mother's history based on their personal knowledge and consequently missed some points. In this regard, a midwife with 18 years of experience stated: "*An advantage of the new package compared to the previous one is that it is more complete. Forms are complete and consistent and we can take the complete history of mothers relying on the new form and no point is missed".*

Providers believed that new program is better and more complete than the old one, also organized based on scientific principles. So it could be mentioned that it is reflection of science in the care". The way of evaluation and providing healthcare services in the previous program relied on midwives personal knowledge and accordingly, every midwife used to take care of pregnant mother based on her knowledge and studies, and the mother was referred to the physician of center or a specialist based on the opinion of her midwife. Lack of an identical strategy to provide healthcare services and referring mothers caused errors such as numerous and unnecessary visits or neglecting on time visits. A midwife with 17 years of experience expressed her idea:

"The new booklet is more complete and better than the previous one; first, healthcare services and the way of caring are similar in every center".

The scientific basis of the new program is one of its strengths referred to by all interviewees. A midwife with 14 years of experience described this feature as follows:

"*Therapeutic measures and caring policies are uniform and rely on scientific basics. Accordingly, providing healthcare services and referring mothers to the superior institutions will be uniformed and consistent with scientific basics*."

So, "increased coordination and quality of care" along with "reflection of science in the care" emerged the main theme of "*program's facilitating points*".

Theme2. Program shortcomings

Long lasting first visit, reduced frequency of visits, long period between first and second visits, and need to record a lot of information along with time-consuming nature of care based on booklet were some reasons which led to "*Disturbed midwife - client relationship*" in applying new program.

One of the problems mentioned by most of the participants was the extended first visit of pregnant mothers. A midwife with 8 years of experience expressed her idea:

"*Filing in the first visit is very time consuming and may take 1 hour or more, which is very problematic for crowded centers like ours. Mothers should wait for a long time out of the room and the person who prepares the file concerns about the time and personal problems*."

The number of visits was more in the previous program, which in most of the cases was unnecessary. But these numerous visits improved the relationship between pregnant mothers and midwives. A midwife with 14 years of working experience stated that:

"*The numerous visits in old program compared to new package allowed for a better relationship between mother and midwife*"

Reduced number of visits in new program led to prolonged

time interval between visits. Especially the long interval between two first visits is pointed by midwives and healthcare authorities. To make this time interval shorter, some of the midwives ask mothers to pay a visit within the interval between first and second routine visits to show the laboratory test or sonogram results. A midwife with 17 years of experience stated that:

"*Another point is the time interval between the visits, especially the long interval between the weeks 16 and 20, and also 26 and 30."*

Also one of the healthcare authorities stated that:

"*A 10-week gap between the first two visits is not acceptable and pregnant mothers are monitored more qualitatively"*.

"Referral: Necessity or care in vain"; The other problems indicated by midwives regarding the referral in the new program were relied on two main points: first, the number of visits based on which mothers should be referred is high; second, the referred hospital might create other problems such as no feedback reporting to the healthcare center, criticizing the healthcare center for referring a patient, etc. A midwife with 15 years old working experience mentioned this point as:

"Mothers are complaining about too much referral visits. After one or two times of referring, they don't accept to go to hospital. All of them ask to have necessary care here."

The other problem in this regard was "*improper timing of sonograms*"; long interval between sonograms and no need for confirmatory sonogram in the early pregnancy. In this regard, a midwife with 8 years of experience stated that:

"*There is no need for sonogram in the early pregnancy in this booklet; while, most of the times if mother is not monitored by a specialist, or if there is ectopic or false pregnancy, it may be realized too late."*

"Training for registration in the system not for the client";

One of the implementation problems was about training; lack of training booklet for each session to integrate trainings are the points which were raised; for example, a midwife with 14 years of experience stated:

"*In crowded centers the midwife cannot spend time on training all items and sometimes only datasheets are filled*."

Theme3. Requirements for development

However, every comprehensive and integrated program may have problems while implementing by the health care providers, awareness of healthcare policy makers and planners can develop and modify healthcare programs. According to the interviews with the healthcare authorities regarding the new booklet, the following subthemes emerged as requirements for development of this program. "*Clarification of confusing points in care providing", "Advocacy", "Enhancing evaluation"* and *"Matching care plan for special circumstances*" were mentioned as this requirement.

Health care providers faced some problems using new booklet. There was not enough explanation for some pregnancy complaints, complications, and interpretation of the tests. One of midwives with 8 years of experience said that:

"*Some points are not explained very well. I don't know how to manage patients with bleeding from the nose and gums, headache alone, epigastria pain alone, weight gain alone or incomplete interpretation of test results, such as thrombocytopenia and other blood diseases other than anemia, some cases in postpartum care. These conditions are not met in new booklet*"

Time consuming and confusing solutions to mothers' complaints were the other point which providers mentioned. "S*ome of solutions from new booklet are not practical"* (Midwife with 9 years of experience).

Designing a single instruction book associated with each session was the other point which was recommended by providers. One of the midwives with 4 years of experience told:

"*The new booklet makes the opportunity to provide an integrated and coordinated care for each of us, but we don't know the detailed training content which should be provided to our clients. Having a specific training guide can facilitate our work"*

Every new program needs "*advocacy***"** to be fully implemented. The integrated maternal health care program need advocacy to coordinating private sector to provide care based on new program, gaining legal support on specific occasions, such as advocating of insurance support to accept the application of tests and sonogram prescribed by midwives. In this regard a midwife with 12 years' experience said:

"As a midwife, I am expected to manage the pregnant mother but I can't even ask routine lab tests. Every lab test or sonograms should be asked by doctors. Insurance companies don't accept when we ask the tests".

One of the authorities said:

"*If we could persuade health care providers from private sector to work based on new booklet, the care would be coordinated and every problem would be detected and referred on time….Also there are some special occasions which we need legal permission to act. An example is a high risk pregnant women who should be referred to hospital at once, but her husband doesn't allow or she deny to follow her care in hospitals*".

So advocacy is a necessary act to enhance the new program. The other point which was mentioned by participants was related to evaluation. Two main points were emerged in this regard: need to designing national monitoring tool and design monitoring service on how clients are trained. Need to predefine evaluation forms in two aspects of care provision and clients' education can "*enhance evaluation"* of program. One of the authority mentioned this point as below:

"*We do not have any unique evaluation forms. Providers should be evaluated based on program requirements. Care provision and client education are two main aspects which need to have evaluation forms. Designing a national monitoring system and predefine unique forms are needed*."

The last point which was emerged from interviews was a need to tailoring care based on areas deprivation and time needed to access specialized services. "*Matching care plan for special circumstances"* was a suggestion to make practical hints for special areas. In this regard one of authority said that:

"*We expect our midwife to refer their pregnant clients with red flags. But sometimes bad weather, geographical barriers, having no access to an ambulance and so on are barriers of care provision in special areas. The program should be revised looking at this point too*".

Discussion

The current study evaluated the viewpoints of health care

providers of the integrated maternal healthcare program. In the recent years, Iranian Ministry of Health and Medical Education revised the maternal health program and provided a new program of "the integrated maternal healthcare program". Data analysis led to emergence of three main themes of *"program facilitating points",* "*program shortcomings"* and "*requirements for development".*

The increased coordination and quality of care along with scientific bases of the care were found to be facilitating points of this program. the program developer proposed the onset of maternal cares 3 months prior to pregnancy, less number of visits during pregnancy, a determined process to refer mothers to hospitals, and postpartum cares up to 6 weeks of delivery are important strength of the new program (7). Consistent with current study, In the recent decades, limitations in prenatal cares were considered and also the importance of maternal health before pregnancy was highlighted (9). On the other hand, many studies provided a new model for prenatal cares. Villar et al. (2001) assessed a modified and new model of the World Health Organization (WHO) and indicated evidence of improved results of mothers and infants. Most of the emphasized points relied on screening, risk assessment, and tests for the primary treatment to prevent preeclampsia and preterm labor (5).

WHO aimed to reevaluate and provide a new program based on the latest evidence (10). The Center for Disease Control and Prevention (CDC) provided guidelines for prenatal and gestational cares, based on the previous studies. The results of CDC indicated that decreasing prenatal risk factors reduces complications of pregnancy, and affects the results of pregnancy and delivery (11-13). Berghella et al. (2010) believed that every fertile female referred to the healthcare center should be questioned as follows: Does she think about pregnancy? Is it possible that she was pregnant? By these questions a new interview is opened for prenatal cares, which affects the results of pregnancy and delivery (14). So consistent with previous studies, present results confirmed that there are some "program shortcomings" and "requirements for development". A new program can be better revised based on its' users' viewpoints. The present study tried to found and reflect these viewpoints. So it is hope that the current results help as a guide to revise the program.

Interventions in the new model showed that the model had no adverse effects on the results of pregnancy; the model was also confirmed by mothers and health care providers and can reduce costs (5, 15). Raatikaine et al. (2007) compared 2 groups of mothers with 1-5 or less, and 6-18 visits during pregnancy. Mothers in the group with 1-5 or less visits showed more complications, although the study aimed to evaluate pregnancy complications in mothers who pay no visits or at least less than 5 visits during pregnancy (16). In the last guideline of WHO, minimum 4 visits during a natural pregnancy is recommended by WHO. According to the guideline, the number of visits depends on the conditions and national policies of the country such as the status of HIV and malaria (3). Training was another point indicated by the study interviewees. Today, there is sufficient support for the contents of maternal healthcare program. Most of the programs emphasize screening, risk assessment, and therapeutic interventions to prevent the adverse effects of pregnancy such as abortion, preeclampsia, preterm delivery, low birth weight, and pregnancy complications. But in some other programs, psychological issues and training in public health, pregnancy, and delivery are also provided, in addition to the previously mentioned issues (17). The requirements and expectations of mother should be perceived and "Listening to Mothers" should be implemented (17). According to the study by Corry, to control facilitating factors and help mothers, more knowledge about females who are at risk for adverse effects of pregnancy is required. Therefore, considering the quality of gestational cares is of great importance (18), and to meet the goal, using standard guidelines to reduce pregnancy complications can increase the quality of cares. Previous studies also indicated that healthcare providers should encourage centers to train all referring mothers before delivery. The trainings aim to reduce adverse effects of pregnancy and increase the results (19). Many studies were conducted on continuing cares in home, which improve gestational cares. Most of the studies relied on the viewpoints of authorities and mothers to improve the quality of cares and reduce pregnancy complications (11, 20-23).

Since no similar study is conducted in Iran yet, findings of the current study were codified in a way that indicated positive and negative points of the program. It is recommended to evaluate the integrated maternal healthcare program in the deputy of health, and consider necessary actions based on the weaknesses and strengths of the program. For example, a revision is necessary in the number of visits.

Conclusion

Results of current study showed regulation and coordination in providing cares and therapeutic measures, increasing accuracy and quality of provided cares, complete evaluation and follow-up forms, and being more complete compared to the previous program were the strengths of the integrated maternal program, a program based on scientific basics.

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Ethical consideration

The current study was approved by the Research Committee of Qazvin University of Medical Sciences, Qazvin, Iran. Necessary introduction letters were obtained from the university, and written informed consent forms from the study health care providers. Subjects were assured regarding the confidentiality of their interviews and elimination of recorded audio files after transcription.

Conflicts of interests

Authors declared no conflict of interest.

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