Author’s response to reviews

Title: Homebirth and barriers to referring women with obstetric complications to hospitals: a mixed methods research in Zahedan, Southeast of Iran

Authors:

Mahmoud Ghazi Tabatabaie (smghazi@ut.ac.ir)
Zahra Moudi (moudi@zaums.ac.ir)
Abouali Vedadhir (vedadha@ut.ac.ir)

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Author’s response to reviews: see over
Reviewer's report
Title: Homebirth and barriers to referring women with obstetric complications to hospitals: a mixed methods research in Zahedan, Southeast of Iran
Version: 1 Date: 11 January 2012
Reviewer: Nicole Berry

Dear Professor Nicole Berry,

Thank you very much for your time and priceless comments on our joint article. We read all of your helpful suggestions and changed the sentences (all in red) in accordance with your review as follows. We have tried to do our best by taking into account and revising the article based your report.

Kindest thanks,
Authors

Reviewer's report:
1. Working more thoroughly on the overall conceptualization could strengthen this article most. The first step in this would be to tie the results more thoroughly to other literature. For example, articles looking at the high rates of C-sections in Brazil point out that women want the C-sections, while other authors have emphasized that many places women don’t want C-sections. Also, the doctors versus midwives section should be framed by literature that calls for integration of services and articles on the professionalization of midwives. It would be nice to present the findings here in terms of how they figure into these conversations. It would also help distinguish what is novel in terms of the contribution (potentially the “disgrace?”) versus what has been previously reported.

Dear Dr. Berry, we were delighted with your enlightening comments and suggestions, we tried to take all of them into consideration. We would appreciate if you could read the revised and edited article again; we added some paragraphs to results, changed the discussion and focused more on socio-cultural factors and elaborated more on disgrace as follows.

However since, in the present study, the objectives were to examine the factors that hinder midwives and women from utilizing hospitals, the doctors versus midwives relationship were discussed in such context: Research has shown that such relationship between potential users (including the patient, significant others who influence the decision, and the midwives), the socio-cultural structure, and health beliefs affect the use of health-care services such as comprehensive EmOC [30, 31]. Furthermore, traditionally, risk definitions have focused on the likelihood that an unexpected event will occur [32]. As a result, the traditional approach to risk reduction has been concerned with managing risk through applying medical scientific advances in highly specialized areas [33], while the
context that we are dealing with is a traditional with relatively meager social and structural sophistication. Recently, however, social scientists have rejected the notion of real or objective risk. They believe that an individual’s own estimate of risk may differ greatly from an objective estimate of that risk. Perceived risk concerns how an individual understands and experiences the phenomenon. Furthermore, risk is a socio-cultural construction [34].

2. Once this is done, the authors would be in a better place to more strongly emphasize and indicate the original contribution of this article. I would encourage the authors to reframe the piece to highlight these original contributions. This might mean making it less of a summary and concentrating more heavily on some areas than others. It certainly means revamping the discussion, which is very piecemeal. Rather than seeing each category separated in the discussion, I would like to see it center around a more synthetic take on this research.

As the reviewers suggested, we revised the division of Discussion, and change it as follows. We tried to work more on socio-cultural factors that affect the financial accessibility. We worked on the important links between service delivery and the macro-dynamics of a health-care system’s structure and financing. Such studies remind policy makers and managers that a health-care system is a socio-cultural institution and that a community’s health-care problems cannot be addressed without first addressing these relationships, including the socio-cultural context and structure in which these relationships are frequently based [27].

The present study showed that bureaucratic obstacles among Baluch women such as the lack of a national ID card or passport can cause inequity in access to governmental facilities and strategies for reducing the financial barriers to emergency obstetrical care, e.g., insurance and insurance discounts. Some scholars concluded that a targeted fee-exemption programme is necessary for poor or otherwise disadvantaged mothers (those with no national ID card or those with large families and limited financial resources). However, other studies showed that making services accessible might not be enough [28] because socio-cultural factors can inhibit the use of EmOC facilities despite financial accessibility. Therefore, this study verifies that biomedical models discount the role of socio-cultural factors in determining care-seeking behaviour [29].
Traditionally, risk definitions have focused on the likelihood that an unexpected event will occur [32]. As a result, the traditional approach to risk reduction has been concerned with managing risk through applying medical scientific advances in highly specialised areas [33]. Recently, however, social scientists have rejected the notion of real or objective risk. They believe that an individual’s own estimate of risk may differ greatly from an objective estimate of that risk. Perceived risk concerns how an individual understands and experiences the phenomenon. Furthermore, risk is a socio-cultural construction [34].

To understand why parturient mothers and their families in Zahedan react passively to hospital referrals by TBAs and why TBAs did not refer mothers to EmOC as soon as the TBAs perceived a serious delivery complication, we must first understand the concept of stigma and the process of stigmatisation (21). And then continue the discussion.

3. The article was frame in terms of the three delays, with the authors pointing out factors that could contribute to a delay in transport to the hospital. Nevertheless, the results were not interpreted vis à vis these categories after the initial mention of the model. The themes that emerged were not subsequently pegged to when they were causing delay. Much of the article seemed to be about delay in transport, but then the discussion of midwives seemed to cross all three boundaries. I don’t think that squeezing the article into these categories would be very useful, but I do think that some sort of reflection on how the findings fit in with the delay model is necessary. Do the three divisions proposed by Thaddeus and Maine make sense? Are they useful for explaining what is going on in this particular location?

The present study do not want to work based on Thaddeus model, but at first use it to provide a whole picture of different type of delay, and then work on factors that affect delay in using EmOC; and as you mentioned we cross the boundaries. Because, we dicuss the factors that affect decision making. (We hope the changes that have been done on paper can show it).

4. Each of the themes in the results needs to be amplified a bit. The economic section ends with the difficult of obtaining the ID. Is this economic? It made me think that this section might refer more to “health systems issues” i.e. that there has been a transition in insurance, that you have to get a card etc. and that all of these health systems issues decrease the accessibility of care.

No, In this community, it is a social matter, because:

See the following sentence please.
The present study showed that some social affairs among Baloch’s women such as lack of a national ID card or passport can cause inequity in access to governmental facilities and strategies for reducing the financial barriers to emergency obstetrical care, e.g., insurance and insurance discounts. Some scholars concluded that a targeted fee-exemption programme is necessary for poor or otherwise disadvantaged mothers (those with no national ID card or those with large families and limited financial resources). However, other studies showed that making services accessible might not be enough [28] because socio-cultural factors can inhibit the use of EmOC facilities despite financial accessibility. Therefore, this study verifies that biomedical models discount the role of socio-cultural factors in determining care-seeking behaviour [29].

Second, I needed to hear more about “disgrace” see the note below. We add in the results and discussion about it.

Finally, though I very much liked the last theme, I was uncertain about whether this was just professional midwives who were reluctant or all TBAs and midwives. Do the doctors distinguish between them? Were things related to reputation different for different types of midwives/TBAs?

We looked to interviewers again and add some parts to the article as follows:

In this study a number of midwives reported that professional rivalries between midwives and doctors and misbehaviour by physicians and their colleagues in hospitals sometimes contribute to the problem of delayed referral acceptance. According to the data, gynaecologists and obstetricians do not trust midwives. This mistrust can inhibit mutually satisfying professional relationships from developing between midwives and physicians. Additionally, midwives lack the assurance that the medical team will support them at critical moments. They noted as follows: “Hospitals and physicians do not cooperate and they aren’t supportive; they even urge the mother’s relatives to complain and sue us” [Midwife 5].

Although TBAs supervise 75% of deliveries in Zahedan, they are not legally allowed to supervise deliveries in urban areas. As a result, they can easily be sued. Therefore, the TBAs endeavor to complete the deliveries at home and do not refer parturient mothers to hospitals except in the case of a serious complication. In addition, although delivery at home supervised by a biomedically educated midwife is fully legal, these midwives are
also hesitant to refer mothers to hospitals. Some biomedically educated midwives presented their reasons as follows: “Physicians inquire and blame us in the presence of the patient and her relatives [Midwife 9], and “They don’t take into account and respect us” [Midwife 1].

Therefore, physician and hospital staff behaviour can be a threat to the midwife’s job and prestige. One midwife stated the following: "If midwives refer a woman to the hospital, the woman and her family think she is not competent, and she will lose all credibility in the eyes of the patient" [Midwife 4, 8].

5. Given that many of the statements described in the first two themes recapitulate other findings in this area I would appreciate seeing citations of those who have found the same and (cf…..) to signal those whose findings are directly different.

We looked at the article about disgrace notion as follows:

To understand why parturient mothers and their families in Zahedan react passively to hospital referrals by TBAs and why TBAs did not refer mothers to EmOC as soon as the TBAs perceived a serious delivery complication, we must first understand the concept of stigma and the process of stigmatisation (21). The local society teaches the rules that organise interpersonal life by immersing the members of the society in established cultural patterns. When a disparity occurs between an individual’s “virtual social identity”, that is, how a society characterises an individual, and the individual’s “actual social identity”, or the attributes the individual actually possesses, the individual’s identity may be stained. The individual is reduced from a whole and ordinary person to a tainted and improper one who runs the risk of stigmatisation [35]. Stigmatisation threatens what is most at stake for ordinary people in a local society such as their relationships with others and their life chances [36]. As the mothers in this study showed in their interviews, these individuals face the severe social sanction of isolation or marginalisation from their local world. Sometimes, the individual and the individual’s family experience a dread that is felt more strongly than physical fear [37]. Therefore, as in the behaviour of one mother’s family cited above, who gave money to a TBA and showed respect to her, community members try to fulfil the obligations of reciprocity and
show consideration for the feelings of others to maintain and reinforce their moral reputation in the local society and prevent potential ostracism [37].

The findings of the present study are consistent with Berry (2006), who showed that women and families prioritised social variables over biological ones. This result shows that Zahedan women and families use their own criteria to assess home-birth emergencies and the necessity of EmOC in a manner that sometimes differs from medical guidelines [38]. This behaviour arises from contextual differences in the meaning and use of the concept of risk [39] and the fear of stigmatisation [40]. A model with two dimensions, an objective or scientific risk and a socially experienced or lived risk, has been introduced to explain the differing risk concepts. While epidemiologists use the objective or scientific dimension to interpret risk, laypeople use social or lived experiences [39]. In the general population, risk can be internalised and experienced as an immeasurable insecurity, a system that punishes and rewards individual behaviour in a way that is accepted and desired. However, what is acceptable in one society would be banned in other societies and cultures. Violating social rules can result in exclusion from the community [41]. The present study is consistent with Murphy (2011), who showed that beyond the idea of the loss of individuality, issues of identity might be at stake for ordinary people. The present study also showed that socio-cultural risks, including the threat of social exclusion, are sometimes more important than medical risks, which can delay care-seeking.

The present study accentuates the key role of the midwife in encouraging or discouraging mothers and their families to accept or decline the referral to comprehensive EmOC [42]. Likewise, the present study showed that midwives may fail to refer patients to hospital-based services because the midwives are unable to address the interpersonal aspects of the referral circumstances. On the other hand, when patients were reluctant to transfer, these nurses lacked the knowledge and communication skills to overcome this reluctance [43, 7]. Referral decisions are not just matters of technical or organisational considerations. The decisions also involve stress, fear, and anxiety on the part of the mothers and their families and the midwife. The present study showed that poor professional interactions between frontline midwives and hospital staff and physicians can threaten the professional prestige of midwives. The results of the present study and those of another study showed that the failure to adequately refer patients can originate in
the negative attitude towards TBAs and biomedically educated midwives of hospital staff and the TBA’s and biomedically educated midwife’s fear of losing credibility [43]. As Yung (2007) noted, these fears can threaten a midwife’s socioeconomic status, income, life chances, good fortune, job, local social network and relationships with colleagues for biomedically educated midwife. Consequently, “midwives prefer to keep their patients 'under observation' at home as long as possible, often beyond what is reasonable. They only considered a referral when surgery becomes inevitable or they can’t do anything else” [43]. Therefore, poor cooperation and interpersonal relationships between physicians and midwives can cause under use of these facilities even where the facilities are readily available.

6. I like the setting description but would like a comment on why this setting was chosen and/or appropriate for this study. Please see the following:

First: Despite availability of 4 EmOC facilities in this small city (the capital of province), 12 percent of women still choose to deliver their babies at home [10]. This is the most number in the country. Second, the scholar have been living and working in this city for about 15 years as a midwife. Therefore, was familiar with the other midwives and the city, and people trust her, which help scholar to get the most information through in depth interviewees with informant mothers.

7. Could the authors please expand on what exactly the “disgrace” is that the TBA could bring? Would she talk poorly about them later? Could she shame them? Expand what this might mean and how it might affect the family. Perhaps we need some more information about the status of the TBA in the community to understand why her approbation is so important.

We added the following paragraph that we hope to provide more information:

When the study’s main author asked this woman’s mother “why did not you do anything against TBA, while you felt something was wrong, and your daughter’s life was in danger?” she instantly replied as follows:
“It was impossible because I was afraid that TBA would go outside the home and shout and bring disgrace on us” [Mother 17].

Finally, to save the mother, a neighbour had begun to threaten the TBA and the advice that the mother transfer to a hospital. However, the mother’s family had had to pay the TBA and drive her home before the mother could be taken to a hospital.

A Baluch biomedically educated midwife explained the passivity of the mothers’ reactions accordingly:

“Other family members, relatives, and neighbours refer to TBAs for different reasons (delivery, prenatal cares, oiling and massaging the abdomen which they believe will facilitate delivery and occasionally will help the external rotation of the foetus); so the TBAs are likely to start backbiting about the behaviour of mothers who had not respected them and develop gossips about those mothers and their families. So mothers, to avoid such situations, have to take tolerant behaviour with the TBAs. Moreover, in case mothers and their family needed the TBA, she would not help them anymore (Midwife 4).

The following mother’s story confirms how Baluch mothers are victimised by this type of disgrace:

As she narrated,

“I am afraid of people’s words or labels about me or my family. It would be very bad for you. You would easily be disgraced, no one would respect you; you would be then depressed and lonely” (Mother 6)

Consequently, this type of disgrace and similar social phenomena can cause mothers and families in the Baluch community to delay when considering transferring to hospitals.

8. Finally, the article would benefit from thorough editing by a native English language speaker.
   It has been edited by elsevier webshop

Minor Essential Revisions:

1. Page 1: I would put the citation after the number of deaths, not the 99%, as it is the number and decreases that has recently changed. There is little debated about the 99% disparity.

   We changed the place of the reference and then sent it for edition
2. Page 1 Second sentence: don’t use a quote for a fact that is not really debatable. A synthesis in the authors’ own words would be better. We changed it in the authors’ words and then send it for edition.

3. Therefore, the focus for addressing maternal mortality has consequently shifted from predicting complications during pregnancy to preparing for efficient emergency interventions” [7]. There is an end quote but no earlier pair of quotation marks. Again this is not the type of material that should be quoted, but rather summarized. We change this sentence, too. And send it to edition.

4. Methods:
In quantitative phase, we gathered, managed and interoperated existing data of health sector using the standards of WHO for availability and utilization of EOC services [12,13]. The reader would like to know what this means now. Need to indicate you will more thoroughly discuss it later.

You are absolutely right; therefore, on page number 4, in methodology, we added one paragraph and one table (Table 1). We hope it would be clear.

In the quantitative phase, the analysis was performed on the existing metric data that are routinely collected by the health-care sector. These data were used to calculate the UN process indicators for emergency obstetric services. The UN agencies UNICEF, WHO, and UNFPA in collaboration with the Averting Maternal Death and Disability (AMDD) programme developed the UN process indicators to measure the availability, use and quality of emergency obstetric care (EmOC) [12, 13, 14]. In addition to basic EmOC (administering parenteral antibiotics, oxytocics, anticonvulsants for preeclampsia and eclampsia, manually removing the placenta or other retained tissues and assisting with vaginal delivery), EmOC should offer Caesarean section and blood transfusion (12). The UN standard requires that a service have been provided for a period of at least the past three months (15). The definition and minimum acceptable levels of the indicators are shown in Table 1.

### Table 1 The three UN EmOC process indicators and their recommended levels

<table>
<thead>
<tr>
<th>EmOC indicators</th>
<th>Description</th>
<th>Acceptable level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Availability of EmOC</td>
<td>Number of facilities that provide EmOC, defined as providing 8 medical services in the last 3 months</td>
<td>At least 1 comprehensive EmOC facility per 500,000 people and 4 basic EmOC facilities per 500,000 people</td>
</tr>
</tbody>
</table>
2. Proportion of all births in EmOC facilities proportion of all expected births in the population that took place in an EmOC facility At least 15% of all births in the population take place in either basic or comprehensive EmOC facilities

3. Caesarean section as a percentage of all births Caesarean section as a proportion of all births in the population At least 5% and no more than 15% of all births

Abbreviation: EmOC, emergency obstetric care
Source: AMDD working group on indicators, 2002.

5. In terms of selection of interviewees, the authors say, “These interviewees were recruited in such a way that their real experiences and lives can help us to answer the research questions” Need to indicate that selection and recruitment will be more thoroughly discussed below. The division of participants and data collection has been located after the methods which contains this sentence. Therefore, the reader or reviewer can see the character of participants and our means of that sentence.

6. The authors say: some educated midwives It would be better to phrase this as some biomedically educated

It has been phrased as you truly mentioned.

7. Quality of written English: Not suitable for publication unless extensively edited
It has been edited by the Elsevier webshop/ editors.

Reviewer's report
Title: Homebirth and barriers to referring women with obstetric complications to hospitals: a mixed methods research in Zahedan, Southeast of Iran
Version: 1 Date: 18 January 2012
Reviewer: Kirti Iyengar

Dear Professor Kirti Iyengar,

Thank you very much for your time and priceless comments on our joint article. We read all of your suggestions and changed the sentences (all in red) in accordance with your review as follows.

Kindest thanks,
Authors

1. There are discrepancies in data presented on proportion of deliveries at home (page 2 mentions 10.8 and 19.5% deliveries at home, while page 3 mentions 23%. This needs to be corrected.

The first number (see page 3) refers to the whole province as shown here.
The situation is worse in some areas of Iran such as Sistan and Baluchestan province, where 10.8% and 19.5% of all deliveries in urban and rural areas, respectively, occur at home, in comparison to 0.8% and 5.4% for the entire country [9].

While the data on the page 3 is related to Zahedan city, the capital of this province,”

The data of this paper are collected from Zahedan, the capital and the most populous city of Sistan and Baluchestan province in the southeast of Iran, where 23% of all deliveries are taken place out of hospitals [10].

2. The question posed by the authors is not well defined.

The objectives of the study should be clearly mentioned after the introduction.

On the page 3, the objectives are written in the end of the introduction as follows: The objective of this study was to determine the factors that hinder midwives and parturient women from using hospitals when complications occur during home birth in Sistan and Baluchestan province, Iran

3.a Methods: The methodology mentions quantitative phase, while results are presented only for qualitative study.

The quantitative results of the study are presented in the following three tables:

Table 2: Availability of EOC in Zahedan, Iran.

Table 3: Proportion of births in available comprehensive EOC public sector facilities in Zahedan

Table 4: Cesarean section as a proportion of all births in Zahedan

**Table 2: EmOC Availability in Zahedan, Iran**

<table>
<thead>
<tr>
<th>Population Size</th>
<th>Current availability</th>
<th>Recommended number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Basic</td>
<td>Comprehensive</td>
</tr>
<tr>
<td>613,572</td>
<td>-</td>
<td>4</td>
</tr>
</tbody>
</table>

* Standard: 4 basic per 500,000 (UNICEF UNFPA WHO 1997, UNFPA report 2002).

**Standard: 1 comprehensive per 500,000 (UNICEF UNFPA WHO 1997, UNFPA report 2002).

Source: MHO, Zahedan, 2011.

**Table 3 Proportion of births in available comprehensive EmOC public facilities in Zahedan**

<table>
<thead>
<tr>
<th>Facility type</th>
<th>Number of births</th>
<th>Expected number of births</th>
<th>Proportion</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 comprehensive EmOC facilities</td>
<td>11.754**</td>
<td>15150*</td>
<td>0.77</td>
<td>&gt;15%</td>
</tr>
</tbody>
</table>

*To calculate this number, we used the total number of annual births in Zahedan according to the Maternal Health Office, Zahedan, 2011.
**This number summarises Caesarean sections and normal vaginal deliveries in three comprehensive EmOC facilities.

Source: MHO, Zahedan, 2011.

Table 4 Caesarean section as a proportion of all births in Zahedan

<table>
<thead>
<tr>
<th>Number of C/S</th>
<th>Expected number births in Zahedan</th>
<th>Proportion Zahedan / hospitals</th>
<th>Recommended range</th>
</tr>
</thead>
<tbody>
<tr>
<td>2501</td>
<td>15150</td>
<td>0.17</td>
<td>0.21</td>
</tr>
</tbody>
</table>

Source: MHO, Zahedan, 2011.

3.b Please clarify whether there was a quantitative component of the study, and if yes, details of its methodology and results.

It has been explained in methodology (page 4) and, in Table 1 as follows:

In quantitative phase, the analysis was performed on the existing metric data that are routinely collected by the health-care sector. These data were used to calculate the UN process indicators. The UN agencies UNICEF, WHO, UNFPA with the Averting Maternal Death and Disability (AMDD) program developed the UN process indicators to measure the availability, utilization and quality of emergency obstetric care (EmOC) [12, 13, 14]. EmOC in addition to all functions of basic EmOC (administer parenteral antibiotics, administer parenteral oxytocic drugs, administer parenteral anticonvulsants for pre-eclampsia and eclampsia, perform manual removal of placenta, perform removal of retained products and perform assisted vaginal deliver) should be able to offer cesarean section and blood transfusion (12). The standard definition requires that the function had to have been provided for the period of the past three months (15). The definition and minimum acceptable levels of the indicators are shown in Table 1.

Table 1 The three UN EmOC process indicators and their recommended levels

<table>
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<tr>
<th>EmOC indicators</th>
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<td>1. Availability of EmOC</td>
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</tr>
<tr>
<td>2. Proportion of all births in EmOC facilities</td>
<td>proportion of all expected births in the population that took place in an EmOC facility</td>
<td>At least 15% of all births in the population take place in either basic or comprehensive EmOC facilities</td>
</tr>
<tr>
<td>3. Caesarean section as a proportion of all births</td>
<td>Caesarean section as a proportion of</td>
<td>At least 5% and no more than 15% of all births</td>
</tr>
</tbody>
</table>
4. The conclusions need to take into account the results of the study. For example, results suggest economic barriers and fear of unnecessary cesarean as barriers to seeking institutional delivery. The authors should discuss how these problems can be addressed.

The present study showed that bureaucratic obstacles among Baluch women such as the lack of a national ID card or passport can cause inequity in access to governmental facilities and strategies for reducing the financial barriers to emergency obstetrical care, e.g., insurance and insurance discounts. Some scholars concluded that a targeted fee-exemption programme is necessary for poor or otherwise disadvantaged mothers (those with no national ID card or those with large families and limited financial resources). However, other studies showed that making services accessible might not be enough [28] because socio-cultural factors can inhibit the use of EmOC facilities despite financial accessibility. Therefore, this study verifies that biomedical models discount the role of socio-cultural factors in determining care-seeking behaviour [29].

And unnecessary cesarean section, as quality of care and assessment of women of risk, on page 15: Additionally, as the literature reviews recognise [5, 6], the assessment of the quality of obstetric care plays a key role in the decision to seek hospital treatment. This assessment depends largely on an individual’s experience with the health-care system and the experiences of acquaintances. The literature showed that the unique understanding that women have of their pregnancies and births leads them to different evaluations from those of men and health-care professionals of what constitutes an obstetric emergency and the best manner to address such an emergency [38, 44]. The way women understand pregnancy and childbirth in their everyday lives encourages them and their families to think and behave differently from what health guidelines would dictate. Therefore, policy makers and managers must be aware that acceptance and sustained use of health services depends on women’s views on the quality of services. Because childbirth is a culturally and emotionally sensitive area, quality of services should address user and provider
satisfaction, social, emotional, medical and financial outcomes as well as aspects of equity and performance according to standards and guidelines [45]. In the present study, some midwives explained that a contract between midwives and hospitals would solve many problems. Furthermore, because midwives are the bridge between hospitals and community members who choose home birth, good communication, trust and satisfying collaboration among midwives, obstetricians, hospitals authorities, families and relatives are necessary for an effective referral system.

**Minor essential revisions**

1. **The setting:** Mention the population covered by the study blocks.
   
   It has been mentioned in the division of participants.

2. **At various places, the term EOC is mentioned where there is reference to an institutional delivery. EOC refers to care for life threatening emergencies, hence this term is not appropriate to refer to deliveries.**

   At least 15% of all women giving births in the population take place in either a basic or a comprehensive/or emergency EOC facility (EmOC), because it is assumed that 15% of pregnant women will develop complication. This kind of arrangement, however, would ignore problems of access. Because, every pregnancy has a potential risk of developing into a life-threatening complication (can not be predicted or prevented, but they can be treated), which would require prompt emergency obstetric care services. Therefore, the ministry of health of Iran to address this issue, has a policy that all deliveries (whether they are normal or complicated birth), in the urban areas, take place in the hospitals that have all facilities of EmOC to save the women’s life. Therefore, In Iran, hospitals (with all functions of EmOC) do normal vaginal deliveries and accepted the case of referral, as well.


**Quality of written English:** Not suitable for publication unless extensively edited

The manuscript been edited by the Elsevier webshop.