

## PEER REVIEW HISTORY

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### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Does attendance of a prenatal education course reduce rates of caesarean section on maternal request? A questionnaire study in a tertiary women hospital in Shanghai, China
<b>AUTHORS</b>	Gao, Yifei; Tang, Yunhui; Tong, Mancy; Du, Yan; Chen, Qi

### VERSION 1 – REVIEW

<b>REVIEWER</b>	Steve Robson Australian National University Medical School, Australia
<b>REVIEW RETURNED</b>	04-Feb-2019

<b>GENERAL COMMENTS</b>	This is a study that is well-done and addresses an important issue. It should be the trigger for a larger study.
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<b>REVIEWER</b>	STEFANIA TRIUNFO UNIVERSITA' CATTOLICA DEL SACRO CUORE ROMA, ITALIA
<b>REVIEW RETURNED</b>	04-Feb-2019

<b>GENERAL COMMENTS</b>	<p>Yifei et al aimed to investigate maternal characteristics in the decision of elective cesarean section based on patient request in a Chinese setting. The study has been carried out by using a questionnaire survey on day 42 of post-partum in 600 women. They found that age, residence status and attendance of a prenatal course were associated with maternal request of cesarean delivery.</p> <p>The paper is about a really interesting subject, a problem in many institutions. That subtype of studies have some limitations related with the recruitment of patients, because it can be a bias itself, and because of the answer given to the questionnaire. Some patients with specific social characteristics may not want to participate. Also some answers to the questionnaire can be untrue. Finally, a 'recall bias' should be taken into account. Despite these limitations, the paper could be of interest for readers because of the interest on the identification of successful strategies for reducing rates of cesarean section.</p> <p>Some minor comments:</p> <ul style="list-style-type: none"> <li>- The previous limitations should be listed in the 'Limitations' section</li> <li>- Improvements in English are required</li> </ul>
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<b>REVIEWER</b>	Susan Hellerstein Brigham and Women's Hospital, Harvard Medical School, USA
<b>REVIEW RETURNED</b>	16-Mar-2019

<b>GENERAL COMMENTS</b>	This retrospective study of 564 low risk women who delivered in Shanghai at a single hospital asked women who came for a
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	<p>postpartum visit to self-report their age, residence status, educational level, mode of delivery, pre-pregnancy weight, and prenatal course attendance, and living condition (homeowner, renter, living with parents). It is unclear if there was any chart review to verify patient reported data. They found that 260 (46%) had a cesarean section on maternal request (CDMR) and that 116 (20.6%) attended the prenatal education course. Basically this study analyzed a group of women who had vaginal deliveries and women with unindicated cesarean sections and asked them if they took a prenatal class or not</p> <p>They report no difference in parity, educational level, pre-pregnancy weight in women by “mode of delivery”. Older age was associated with an increase in CDMR rate and Shanghai residents had a higher rate than nonresidents. Women who attended the prenatal course had a significantly lower rate of CDMR compared to those who did not attend a class. The women who attended the prenatal course were not statistically different from those who did not with respect to maternal age, education level, resident status, or parity.</p> <p>This is an important concept to demonstrate that prenatal education can influence if a woman requests a cesarean delivery or attempts vaginal delivery.</p> <p>Questions: Of the 564 postpartum women, the investigators report on only 2 options –vaginal delivery or CDMR. How did the investigators decide who would complete the questionnaire? How did they identify women with CDMR? Why did they eliminate all women with attempted vaginal delivery who had a cesarean in labor? Were all of the CDMR done prior to labor? Did the prenatal education class result in any differences in the labor experience?- for example how far dilated the patients presented to the labor floor, the number who asked or received epidurals, the number who were able to have a support person in labor or receive other labor analgesics, the number who opted or had regular or “VIP” care?</p> <p>Who attended the single half day prenatal class. Was the class just for pregnant women or did could their significant other, husband, mother or support person attend? What do you mean management of pain in order to avoid medical intervention? What is tertiary or above educational level? Line 156-157 does not make sense-what do you mean the maternal age.... was statistically more significant....?</p> <p>Line 185-6 what do you mean there were no factors associate with attendance of the prenatal education course? Line 188 reference 40%. 196 what is an advanced prenatal care system</p> <p>paragraph 203-216 bring up many important points to give context. Rewrite it more clearly.</p> <p>Paragraph 217-261 is way too long and should be written as 3+ paragraphs each with one idea, more clearly, and in proper English. First the association with maternal age and cesarean section rate is reviewed. I do not understand line 224-227—it does not make sense.</p>
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	<p>The term prevalence of prenatal education is confusing—in the study 20% of the women who completed the questionnaire attended the prenatal education class. How many women who deliver at the hospital overall attended the classes? Prevalence does not seem to be the right term for just % of women in the study who attended a class.</p> <p>You found no difference in the maternal age, education level etc in the women who attended the class and those who did not but that is not the same as saying those factors did not influence attending the class. I don't understand what you are saying line 247-249.</p> <p>Is your information about “women who reside in Shanghai” and “who did not reside in Shanghai” related to hukou status? Is the insurance coverage different?</p> <p>What do you mean older age increases the risk of “obstetric intervention” . What do you mean “apprehensive regarding most aspects of life” – delete this or explain it with evidence.</p> <p>If one is looking at prenatal education and if it influences mode of delivery- you could look at all the women who had prenatal education classes and then the eventual mode of delivery which would include vaginal delivery, CDMR, operative vaginal delivery, indicated pre-labor cesarean sections and labors resulting in cesarean sections..</p> <p>The English language used in this paper needs to be improved. Please have a native English speaker review and revise the paper. Overall the English language is difficult to understand and makes simple points seem much too complicated. This needs major rewriting so that each paragraph is clear and well written with conclusions supported by the very simple study done. Do not make it more complex than necessary</p>
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## VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Reviewer Name: Steve Robson

Institution and Country: Australian National University Medical School, Australia

Please state any competing interests or state 'None declared': None declared

Please leave your comments for the authors below

This is a study that is well-done and addresses an important issue. It should be the trigger for a larger study.

Answer: Many thanks for your positive comments. The current study needs to be further investigated with a large multicentre trial. We have now added this in the limitation section (page 13).

Reviewer: 2

Reviewer Name: STEFANIA TRIUNFO

Institution and Country: UNIVERSITA' CATTOLICA DEL SACRO CUORE ROMA ITALIA Please state any competing interests or state 'None declared': NONE DECLARED

Please leave your comments for the authors below

Yifei et al aimed to investigate maternal characteristics in the decision of elective cesarean section based on patient request in a Chinese setting. The study has been carried out by using a questionnaire survey on day 42 of post-partum in 600 women. They found that age, residence status and attendance of a prenatal course were associated with maternal request of cesarean delivery. The paper is about a really interesting subject, a problem in many institutions. That subtype of studies have some limitations related with the recruitment of patients, because it can be a bias itself, and because of the answer given to the questionnaire. Some patients with specific social characteristics may not want to participate. Also some answers to the questionnaire can be untrue. Finally, a 'recall bias' should be taken into account. Despite these limitations, the paper could be of interest for readers because of the interest on the identification of successful strategies for reducing rates of cesarean section.

Answer: Thanks for your positive comments. Due to the nature of questionnaire study, it is certain that there are a number of biases and a systematic error caused by differences in the accuracy also can happen. We have now added this in the limitation section (page 13-14). We also added the more information about the collection of this questionnaire in the method section (page 8).

Some minor comments:

- The previous limitations should be listed in the 'Limitations' section

Answer: we have now added the limitations as suggested in the limitation section (Page 11).

- Improvements in English are required

Answer: we have now asked a native English speaker with obstetric background, Dr. Esther Woolston from the Department of Obstetrics and Gynaecology, University of Auckland to review this manuscript. We have now added this in the section of acknowledgment.

Reviewer: 3

Reviewer Name: Susan Hellerstein

Institution and Country: Brigham and Women's Hospital Harvard Medical School USA Please state any competing interests or state 'None declared': None

Please leave your comments for the authors below

This retrospective study of 564 low risk women who delivered in Shanghai at a single hospital asked women who came for a postpartum visit to self-report their age, residence status, educational level, mode of delivery, pre-pregnancy weight, and prenatal course attendance, and living condition (homeowner, renter, living with parents). It is unclear if there was any chart review to verify patient reported data. They found that 260 (46%) had a cesarean section on maternal request (CDMR) and that 116 (20.6%) attended the prenatal education course. Basically this study analyzed a group of women who had vaginal deliveries and women with unindicated cesarean sections and asked them if they took a prenatal class or not

They report no difference in parity, educational level, pre-pregnancy weight in women by "mode of delivery". Older age was associated with an increase in CDMR rate and Shanghai residents had a higher rate than nonresidents. Women who attended the prenatal course had a significantly lower rate of CDMR compared to those who did not attend a class. The women who attended the prenatal course were not statistically different from those who did not with respect to maternal age, education level, resident status, or parity.

This is an important concept to demonstrate that prenatal education can influence if a woman requests a cesarean delivery or attempts vaginal delivery.

Questions:

Of the 564 postpartum women, the investigators report on only 2 options –vaginal delivery or CDMR. How did the investigators decide who would complete the questionnaire? How did they identify

women with CDMR? Why did they eliminate all women with attempted vaginal delivery who had a cesarean in labor? Were all of the CDMR done prior to labor?

Answer: This questionnaire included five parts (page 8, now highlighted in yellow). The questionnaire was randomly distributed and was completed in six months. The current study is the results from the first part of questionnaire based on information about delivery. All the women who answered the questionnaire did not have any complications of pregnancy including emergency caesarean section. Caesarean section on maternal request was defined that women who had caesarean section without any medical indications and without emergency caesarean sections. We have now added this in the method section (page 8).

Did the prenatal education class result in any differences in the labor experience?- for example how far dilated the patients presented to the labor floor, the number who asked or received epidurals, the number who were able to have a support person in labor or receive other labor analgesics, the number who opted or had regular or "VIP" care?

Answer: We do not have data on prenatal education class result in any differences in the labor experience. But this is very interesting question. We are starting to investigate this question. We also do not have data on the number of women who received epidurals, and the number of pregnant women who had a support person or received the "VIP" care in labor. However, family member support during labour in childbirth is not common in China due to limited resources of health care facilities.

Who attended the single half day prenatal class. Was the class just for pregnant women or did could their significant other, husband, mother or support person attend?

Answer: the half day prenatal education course is not only for pregnant women but also for husbands or parents. Normally either husbands or parents (in particular pregnant women's mothers) come along with the pregnant women. We have now added this information in the method section (page 9).

What do you mean management of pain in order to avoid medical intervention? What is tertiary or above educational level? Line 156-157 does not make sense-what do you mean the maternal age.... was statistically more significant....?

Answer: The meaning of medical intervention is about the assisted delivery such as using forceps or emergency caesarean section. We have now removed the medical intervention.

Tertiary is the undergraduate level (bachelor's degree) and above tertiary means postgraduate level (Masters or PhD). We have now modified this in the results section (page 11).

Line156-157 means the maternal age in women with caesarean section was significantly higher, compared to women with vaginal delivery. We have now modified these sentences to make it more clearly (now is line 165-167).

Line 185-6 what do you mean there were no factors associate with attendance of the prenatal education course?

Answer: In our study we did not find any maternal characteristics we investigated associating with attendance of prenatal education course. We have now modified this sentence (page 13, nnow line 195-196).

Line 188 reference 40%.

Answer: as suggested by editor we have now removed these sentences.

196 what is an advanced prenatal care system

Answer: Our hospital has the largest and top ranked tertiary maternity hospital in China with a large number of experienced obstetricians and midwives. We have now modified this sentences (page 13, now is line 203-204).

paragraph 203-216 bring up many important points to give context. Rewrite it more clearly.

Answer: We have now rewritten this paragraph, as suggested.

Paragraph 217-261 is way too long and should be written as 3+ paragraphs each with one idea, more clearly, and in proper English. First the association with maternal age and cesarean section rate is reviewed. I do not understand line 224-227—it does not make sense.

Answer: We have now rewritten these paragraphs, as suggested.

line 224-227 means in women who requested the planned caesarean section, 85% of them were over 30 years. We have not modified this sentence (now is line 23-240).

The term prevalence of prenatal education is confusing—in the study 20% of the women who completed the questionnaire attended the prenatal education class. How many women who deliver at the hospital overall attended the classes? Prevalence does not seem to be the right term for just % of women in the study who attended a class.

Answer: The current prevalence of attendance of prenatal education course in our hospital is approximately 25%. The reason for lower prevalence of attendance is that this free course has not been actively promoted. In our current study we found 20% women who completed the questionnaire attending to the prenatal education course. We have now modified our discussion and we used the percentage instead of prevalent (page 15).

You found no difference in the maternal age, education level etc in the women who attended the class and those who did not but that is not the same as saying those factors did not influence attending the class. I don't understand what you are saying line 247-249.

Answer: In our current study we did not find there was an association between the attendance of a prenatal education course and maternal age, educational level et al. We have now modified the sentences (page 15-16).

Is your information about “women who reside in Shanghai” and “who did not reside in Shanghai” related to hukou status? Is the insurance coverage different?

Answer: Due to the difference in the resident system in China in comparison to western countries, there is no English word on Hukou. So we used “women who reside in Shanghai” that means women have Shanghai Hukou. Women who did not reside in Shanghai means those women do not have Shanghai Hukou. The difference in Hukou status causes the difference in insurance coverage as well as local government subsidy on childbirth. As Shanghai is a wealthy city resulting in a possible more subsidy on Childbirth.

What do you mean older age increases the risk of “obstetric intervention” .

Answer: obstetric intervention means assisted delivery. Studies suggested that advanced maternal age is also associated with an increased risk of obstetric intervention including emergency caesarean section. We have now modified the paragraph (page 16).

What do you mean “apprehensive regarding most aspects of life” – delete this or explain it with evidence.

Answer: as suggested we deleted.

If one is looking at prenatal education and if it influences mode of delivery- you could look at all the women who had prenatal education classes and then the eventual mode of delivery which would include vaginal delivery, CDMR, operative vaginal delivery, indicated pre-labor cesarean sections and labors resulting in cesarean sections.

Answer: Many thanks. This is a great idea. Due to the sample size and the data availability, in our current study we only have 116 pregnant women who attended to the prenatal education course. In

addition, no women included in this study had operative vaginal delivery and emergency caesarean sections. Therefore we were not able to sub-analyse this idea, but we will investigate this idea in our next study.

The English language used in this paper needs to be improved. Please have a native English speaker review and revise the paper. Overall the English language is difficult to understand and makes simple points seem much too complicated. This needs major rewriting so that each paragraph is clear and well written with conclusions supported by the very simple study done. Do not make it more complex than necessary

Answer: we have now asked a native English speaker with obstetric background, Dr. Esther Woolston from the Department of Obstetrics and Gynaecology, University of Auckland to review this manuscript. We have now re-written the most part of manuscript. The highlighted parts are only the questions we answered. We have now added this in the section of acknowledgment.