




# The Exploration of Antenatal Education Method and its Problems in Denpasar Regency, Indonesia: A Qualitative Study

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## Abstract

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**BACKGROUND:** Antenatal education is a process giving health information to pregnant women as a part of antenatal care. Antenatal education influences knowledge and behavior which indirectly give impact to the health of mothers and children. In implementing several antenatal education methods, several countries have experienced some obstacles.

**AIM:** The present study aimed to explore the implementation and problems of antenatal education in Denpasar Bali.

**METHODS:** Descriptive qualitative exploration design was used in the study. The respondents were ten midwives in primary health-care clinics and private midwifery clinics in all districts of Denpasar city. The sample was selected using purposive sampling. Data analysis was using thematic approach by QSR Nvivo 12 Plus.

**RESULTS:** The result of this study found two main themes; those were maternity class method and individual/face to face method. Midwives reported that on maternity class method the delivered information was felt more complete since it was in accordance with curriculum, pregnant women could hare with each other, and they could integrate with other professions. However, its weakness was low participation of pregnant women due to busyness. Meanwhile, face-to-face method had advantages since pregnant women felt free to express their personal problems and midwives could offer solutions for the identified problems during antenatal visits. Nevertheless, it has many disadvantages such as, very limited information was provided, problem with human resource management, time management, and pregnant women visitation management.

**CONCLUSION:** In conclusion, both of antenatal education methods have advantages and disadvantages. Maternity class method is considered as a better method yet pregnant women participation to the class is relatively low. Face-to-face method is considered not comprehensive in delivering antenatal information as its problem with time management, human resource management, and patient management.

## Introduction

Antenatal education is an important part of antenatal care services. The aims of antenatal education are to increase knowledge, healthy behavior, and readiness being parents [1], [2], [3]. Antenatal education across countries varies, adjusted with the needs and woman characteristics [4].

Study regarding antenatal education and its effectiveness across countries varies. Brixval *et al.* (2015) on a systematic review reported that the effectivity of antenatal care toward the outcome of obstetric and psychosocial cannot be concluded. Studies in four countries (Argentina, Cuba, Thailand, and Saudi Arabia) reported that women received health information from doctors, midwives, and other health practitioners while performing health examination. Other methods that can be used were maternity class and individual consultation. Antenatal education in Sweden was given by providing information through guideline book, practice, and maternity class [3]. A model group of antenatal care which includes

antenatal education process, developed in England, is effective to increase women empowerment initiated by sharing process with peer group about their knowledge and experience [5]. This model also managed to be developed in America, Australia, Malawi, and Iran. This model is correlated to the enhancement of satisfaction regarding treatment process, the enhancement of health result, decreasing the incident low birth weight and section cesarean [6], [7], [8], [9], [10], [11].

Result of studies from other countries showed that antenatal education is not effective to increase health and psychosocial status of pregnant women. Study in Saudi Arabia also reported that antenatal education is not effective in increasing knowledge of maternal health [12]. Pregnant women participation in maternity class was low in Turkey due to several reasons such as: Working at night shift, no interest, transportation difficulties, inflexible employer, and absent of spouse companionship [13]. Antenatal education was effectively decreasing anxiety and increasing mother's self-efficacy in preparing childbirth; however, it was not influencing mother and father attachment [14]. A systematic review reported that

antenatal education within small class was proven not effective to increase health condition and psychosocial of pregnant mother [4]. Based on the literature review conducted by Catling (2015), there was no difference in baby outcome between women who joined maternity class with conventional method [15].

Based on National Health Indicator Survey in Indonesia in 2016, it was reported that only 19.2% pregnant women who joined maternity class program, despite almost 80% of primary health-care clinics (PHCC) in Indonesia had prepared this program [16], [17], [18]. Each country has various problems regarding antenatal education. The problems are accompanied by variety of people characteristics, culture, economy, and many other factors [4], [6], [12], [13]. A research that could assess those problems thoroughly is needed so that the alternative effective solutions could be purposed to solve the problems. Midwife is one of health professions in charge on giving antenatal education in Indonesia. Information regarding implementation and problems of antenatal education from midwives in Indonesia is importantly needed. The purpose of this study is to explore the implementation and to identify the problems of various practice of antenatal educational methods in Denpasar, Bali, Indonesia.

## Methods

### *Research design*

The present study used descriptive qualitative exploration design. Researcher conducted exploration approach about experience, attitude of action, and midwife problems in providing antenatal education [19].

### *Research setting*

The present study was conducted in Denpasar city of Bali province, Indonesia. Denpasar is the capital city of Bali province. Denpasar city has four districts. Each district has one to four PHCC. Respondents were recruited from PHCC from all districts.

### *Respondents and recruitment process*

The sampling technique in this study was purposive sampling. Sample was selected in congruence with purpose of the study. The study aimed to explore the problems of antenatal education; thus, the study respondents were selected by inclusion criteria including midwives who worked in PHCC and private midwifery clinics, in charge of giving antenatal education, and had at least 3 years of experience. Total sample was determined by sufficiency principle

and data completeness or saturated data have been obtained. Before recruitment process, researcher had obtained permission from authorities and related institutions so that the research can be conducted. Midwives that included in the study had been given informed consent prior the interviews, hence those who included had good understanding about the research process and purpose, and had given their consent.

### *Data collection process*

Data collection was conducted in July until September 2019. Data were obtained by conducting focus group discussion (FGD) and observation to the research location. There are six questions in this study; (1) What antenatal education methods are being used (2) What problems are found in the implementation of antenatal education? (3) What range of information has been given during antenatal education? (4) Has antenatal education been implemented effectively? (5) What are the advantages of antenatal education that has been implemented? (6) What are the barriers on providing complete information? FGD process was divided into two discussion groups. The first group was midwives who worked in PHCC (MP) and the second group was midwives who worked in private midwifery clinics multiple pregnancy clinic. Researchers previously had prepared FGD guideline, recorder, and facilitators. Meanwhile, researchers were in charge of guiding FGD process. Respondents were invited to join FGD at the agreed location. Researchers were guiding FGD process based on questions that had been prepared on guideline. Furthermore, researcher developed the questions during FGD process to gain more information. All FGD process was recorded by audio recorder and noted by facilitator.

### *Data analysis*

The process of data analysis uses QSR Nvivo 12 Plus. The method of analysis uses thematic analysis [20], [21]. All data that had been recorded created into verbatim transcript. Researchers developed early code scheme based on questions on FGD guideline. Research team observed the verbatim transcript each code was categorized into sub theme and theme [22]. Research team then triangulated the data by conducting field observation to ensure information assurance that given during FGD process [23].

### *Ethic*

Before conducting research, ethical clearance had been obtained from Institutional Ethical Committee Review Board Faculty of Medicine, Universitas Udayana July 19, 2019 (No: 2019.03.1.0889).

## Results

There were ten midwives joined FGD process in the present study. Six persons worked in PHCC and four persons worked in private midwifery clinics who in charged providing antenatal care services including antenatal education. Respondent characteristic is described in Table 1.

**Table 1: Respondent socio demographic characteristics**

Variable category	Frequency (%)
Workplace	
Public Health Centre	6 (60.00)
Midwives private practice	4 (40.00)
Length of work	
<5 years	2 (20.00)
5–10 years	4 (40.00)
>10 years	4 (40.00)
Age	
26–35 years old	4 (40.00)
36–45 years old	5 (50.00)
46–55 years old	1 (10.00)

Below is Figure 1 containing words that often appeared in FGD process with midwives (Picture 1).

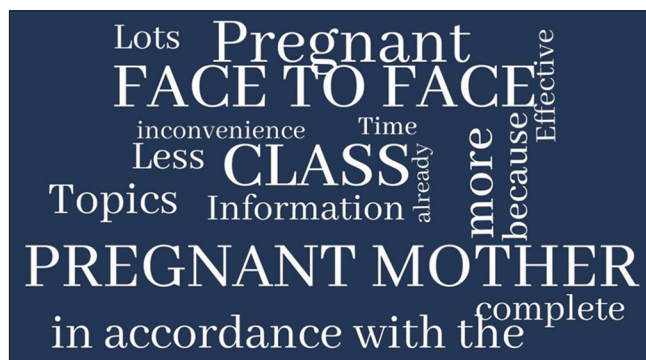


Figure 1: Words that often appeared

There were two main themes gathered from this present study: The implementation and problems of antenatal education method and individual/face to face method. Description regarding themes, sub themes, categories, and code as well as quotations from FGD process are described as follow.

### **Theme 1. Implementation and problems of maternity class**

Implementation of maternity class consists of three sub themes: The given information, advantages of maternity class, and obstacles conducting maternity class. The concept map regarding implementation and problems of maternity class is described on Figure 1.

#### *Description regarding information and education given in maternity class*

Midwives provided information based on maternity class curriculum. The curriculum comprehensively described about pregnancy, childbirth, postpartum, newborn baby, and birth control. It explained normal

condition, warning sign, nursing, myths, communicable diseases, etc. [24]. In addition, the given information also based on questions developed in discussion session. During discussion, pregnant women were given a chance to ask question or share their experiences.

“The maternity class is in accordance with the curriculum” (MP3)

“The maternity class is in accordance with the guideline and pregnant women’ questions” (MP3)

“The maternity class is in accordance with the guideline, collaborated with other program managers, such as birth control, dental health, and nutrition program” (MP5)

“The maternity class is in accordance with the material schedule” (MP6).

#### *Advantages of maternity class method*

Midwives reported that using maternity class method can give more comprehensive information compared to face-to-face method. As the facilitators, midwives were given a guideline and media to provide comprehensive and structured information. Pregnant women got an opportunity to share information and experiences. Other professions such as nutritionists, doctors, public health expertise could be involved in giving supporting information and joining discussion session with pregnant women and families.

“The maternity class is broader and has wider range as well as could be integrated” (MP1)

“About the maternity class, besides it provides lots of material, it also could be integrated and involving family too” (MP3)

“If in maternity class (pregnant women) not only receive a lot of information, but they also can share with others pregnant women” (MP4)

“While in maternity class (they) can sharing, can integrate (with others), the information delivered in maternity class could be shared to several people including families at the same time, (during the class) we also be able to assess clients’ knowledge directly” (MP5).

#### *The problems in implementing maternity class*

The main problem reported by midwives is the low of participating rate of pregnant women in maternity class. As the maternity class is carried out during midwives’ working hours, some pregnant women are unable to attend the maternity class due to several reasons including they are busy with their work life, they have to taking care of their children, or no one could accompany them to the class. The lack number of midwives in several PHCC also becomes the obstacles to deliver maternity class regularly and consistently. Meanwhile, the problem faced by private midwifery

clinics is the lack of supporting facilities including unavailable space to organize maternity class.

“We only (can) offer face-to-face consultation because we do not have facilities to make maternity class.” (PMC1)

“We only provide face-to-face consultation, if our clients want to join maternity class, we will refer them to the closest clinics with the maternity class.” (PMC4)

“The problem with maternity class is the lack of staff, because our PHCC (type) is inpatient clinic, thus we need more staff” (MP1)

“(We) had invited ten pregnant women, (only) six attended (the class), the following month attended six women but they were totally different pregnant women (from six women which attended the class in previous month). (They) still could not be consistently to attend the class. Although we (also) sent (WhatsApp) message reminders, they would still inconsistently attend the class. It was probably because they were busy with their life. The society still considered maternity class as non-priority (necessity) for pregnant women” (MP5)

“The problem with maternity class, maybe, hindering factors from pregnant women to attend the class which may include they have to (fulfill several responsibilities), for example, they have to work, they need to pick their children from the schools” (PMC6).

**Theme 2. Implementation and the problems of antenatal education using face-to-face method**

Face-to-face antenatal education is antenatal or maternity consultation delivered face-to-face. The face-to-face consultation is usually given as the following step after antenatal assessments. Similarly with maternity class, the face-to-face antenatal consultation is explored about general information and education provided, the advantages using face-to-face education method, and the problems related with face-to-face method. The concept map regarding implementation and problems of face-to-face method is described on Figure 2.

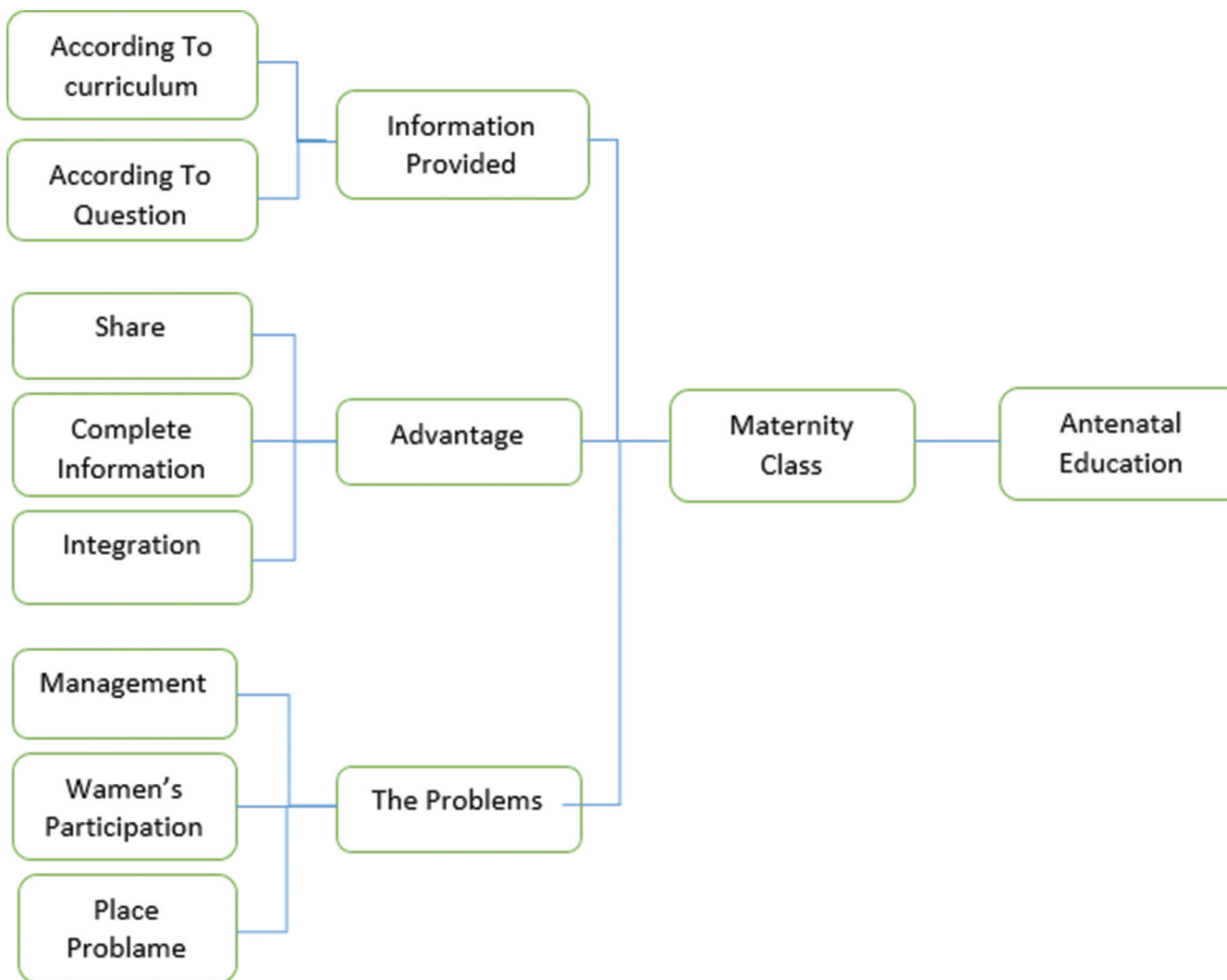


Figure 2: Concept map of the implementation and problems of the class method for pregnant women



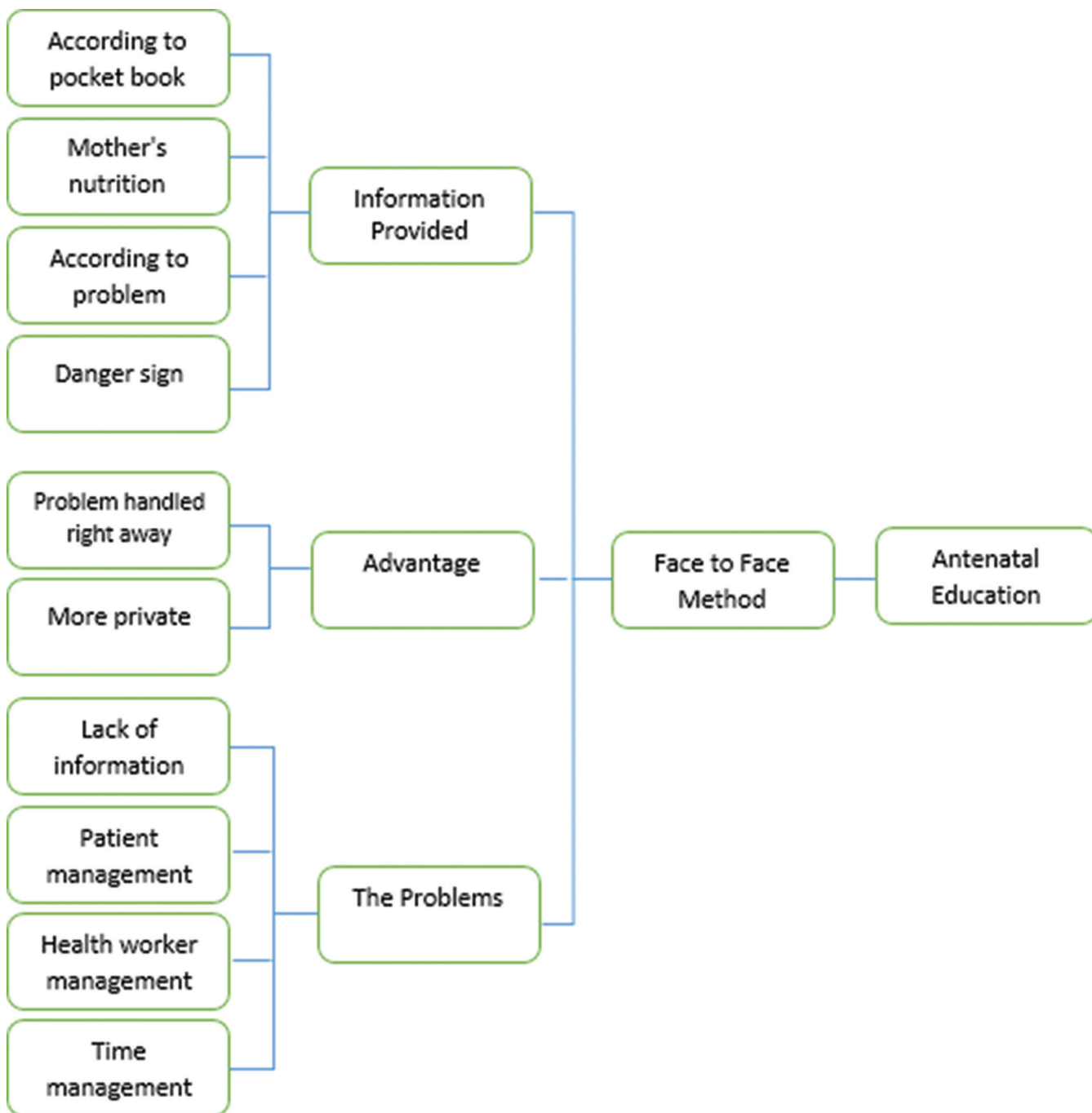


Figure 3: Concept map implementation and problems of face-to-face method

#### General information and antenatal education provided using face-to-face method

Midwives provide information and antenatal education related with the identified problems, general complaints and antenatal assessment results; thus, it also covers information about special pregnancy conditions. The given information covers warning signs and symptoms during pregnancy, antenatal nutrition, delivery process, postnatal, and specific information related with antenatal pregnancy assessment results. Pregnant women are also suggested to read mother and child health hand books to support the given information during face-to-face consultation.

“(The consultation) usually begin with giving information related with clients’ main complaints, (such as) nausea, vomiting, symphysis pain, (following that) we teach the clients how to deal with the problems” (PMC1)

“During the face-to-face consultation, I encouraged my clients to read mother and child health books with me, I also encouraged them to ask anything they found difficult to understand (from the book), for instance if they had special pregnancy complaints, I encouraged them to read specific information related to the complaints provided in the books” (PMC2)

“During face-to-face consultation (we only gave) needed information, (such as) warning pregnancy

signs and information based on identified problems from antenatal assessments, and provided information in the mother and child health books" (MP1)

"If face-to-face consultation (we only provided) based on clients' main, antenatal nutrition, delivery process, and intrapartum and post-partum complication prevention" (MP5).

#### *The advantages of face-to-face consultation method*

Pregnancy women can get benefit from face-to-face consultation method as they can have the opportunity to discuss specific issues that they may find uncomfortable to express it in public such as in the maternity class. The specific antenatal education based on clients' chief complaints can be given exclusively during face-to-face consultation. Midwives can focus more on clients' specific pregnancy issues. Another advantage is that face-to-face consultation method allows midwives to make direct evaluation during consultation process and on clients' understanding of the given information.

"(While) in face-to-face consultation, we can directly respond to the clients' pregnancy issues, and we can offer specific alternative solutions (regarding to the issues)" (MP3)

"(While) in face-to-face consultation, clients' pregnancy complaints can be responded directly, and clients can openly (without feeling embarrassed) discuss their sensitive pregnancy issues" (MP4)

"(While) in face-to-face consultation, we can discuss clients' specific pregnancy needs, (it also) enables working pregnant women (to join), the identified problems can be fixed in the same time (during consultation)" (MP6).

#### *The problems of face-to-face method*

The problem of face-to-face consultation mainly encountered by midwives is the limited information and antenatal education can be delivered using this method. Midwives have to handle so many patients in relatively short time, while they have also to do several administrative requirements and documentation during those limited time. Consequently, midwives only be able to deliver face-to-face consultation in a rush as there are numbers of patients in queue. Midwives also have to do several health-care service routines including antenatal assessments, pregnancy laboratory tests, dental health assessment, general assessment, and et cetera.

"(Because) so many patients, we only gave information based on patients' specific related problems, patients were next encouraged to read further pregnancy information provided by mother and child health hand books, (we) could not be able to

cover (all pregnancy information), (we should) handle next patients because the limited time, with 15 patients (usually) the services could be completed around 01.00 PM, although the service closing schedule is at 12.00 AM" (MP2)

"When in face-to-face consultation, I only gave antenatal education based on clients' identified issues. For example, if the clients were indicated with prenatal anaemia, I would give the specific education related to it. If the clients were pregnant women in their second trimester, then the given information were related to (for instance) the early signs of second trimester pregnancy problems. Maybe only that (information), for further information I encouraged my patients to read mother and child health hand books. This (condition) was consequence of the limited time and limited supporting staff as in (our) clinic only has one midwife on duty, who handled all the routines including antenatal assessments and administrative related requirements." (MP3)

"(While) in face-to-face consultation, (clients) had been informed that they would only receive brief information because the limited time and many patients in queue. Because during antenatal check-ups, patients needed to do so many routines in limited time including antenatal assessments, laboratory tests; consequently, they tended to do all the process in hurried. Thus, it was (considered as) not effective, for further information I encouraged my patients to read mother and child health hand books." (MP6) Figure 3.

## **Discussion**

This study resulted that based on the methods, information comprehension, media, and curriculum application; the maternity class is considered as a better educational approach compared to face-to-face antenatal consultation delivered by midwives. Media and constructed information of maternity class curriculum in Indonesia is comprehensive [24]. Maternity class can build good relationship between midwives and pregnant women, by joining the class pregnant women also have opportunity to share anything related to their pregnancy among them. They can share their pregnancy experiences and information with their classmates. The sharing process in the maternity class has supported women empowerment [5]. A study in Australia showed that pregnant women who joined the maternity class had higher satisfaction level compared to them who only obtained standard antenatal services [6]. A study in Africa showed that women who joined maternity class showed higher level of maternity knowledge, had better intra-natal preparation; although it did not have correlation with baby health outcomes [7].

The research evidence from those countries, however, cannot be directly generalized to make judgment

for other countries with different cultures, different social and demographic characteristics, and different level of economic growth. This study identified that it was very challenging to gain community supports in Denpasar to facilitate pregnant women in joining maternity class. The most challenging factor was the low of participation rate of pregnant women in joining maternity class. The main reason of the low participation rate is because the pregnant women mostly also have the economic responsibility for family, as they have to support their family financially by working in formal and informal sectors [25]. The hindrance for pregnant women in joining maternity class also identified in a study by Tighe in 2010 [13]. Health-care resources management is also considered as contributing factor in hindering successfulness of maternity class. This study identified that maternity class could not be organized consistently as midwives had to handle several tasks. However, private midwifery practitioners expressed different problems regarding maternity class as they could not be able to organize the maternity class due to the lack of space and facilities on their clinics. Therefore, private midwifery clinics mostly offered face-to-face antenatal consultation.

Acceptability and sustainability of antenatal educational programs depend on how well is the programs being planned. Developing antenatal educational programs need comprehensive understanding on target' characteristics and environment [26]. Comprehensive assessments regarding human resources, education facilities, and targets' characteristics are important initial steps to develop antenatal educational programs. The antenatal educational program developments should involve experts in antenatal care and education, and it is initially started with systematic literature reviews. The preliminary developed educational programs need to be assessed using feasibility and usability tests. The results of those comprehensive processes on developing antenatal educational program are considered to indicate whether the programs are recommended or not to be implemented further [26], [27]. The initial identification process on preferred educational format, media and method, delivery time, and educational contents can affect the successfulness of the antenatal educational programs [12]. Cultural background of targeted groups needs to be considered while developing antenatal educational programs. Method and content of educational programs need to be updated based on the evaluation from the latest educational programs or class [14]. Pregnant women should be given the opportunity to choose antenatal educational programs based on their needs and preferences [28].

Face-to-face antenatal consultation has potential problems and advantages. Midwives expressed that face-to-face consultation was only able to cover limited antenatal information. This was the consequence of the limited available time to deliver consultation and also the unbalanced number between

midwives and patients. The face-to-face consultation mainly covers information related to clients' antenatal complaints, antenatal assessment results, antenatal nutrition, and early pregnancy warning signs. Midwives only give limited information and antenatal education during face-to-face consultation; as they have to handle so many patients in short time period, while they have also to do several administrative requirements and documentation during those times. Furthermore, the pregnant women also have to do several routines during their antenatal visits. However, most pregnant women in Indonesia (81.8%) received antenatal information by face-to-face consultation method [16]. This study results are similar with other previous study which claimed that face-to-face antenatal consultation could not provide sufficient information for pregnant women. The contents face-to-face antenatal consultation mainly only cover antenatal assessment results and it rarely is followed with comprehensive antenatal information. Pregnant women responded that they did not get adequate antenatal information and guidance during face-to-face consultation [1], [29], [30], [31]. However, midwives have stressed that face-to-face consultation is a good solution for pregnant women who need private consultation about their sensitive issues. Another considered benefit of face-to-face consultation is that this method allows pregnant women to receive specific needed information based on their condition.

The discussed advantages and disadvantages from both antenatal educational methods can be considered during initial process of developing the most suitable antenatal educational model based on the characteristics of targeted pregnant women, available resources and supporting facilities, health-care providers, and environment where the program will be implemented.

## Conclusion

There are several identified problems which can affect the continuity and regularity of maternity class. Those identified problems include the low of pregnant women participation rate, the health-care provider factors, and the limited resources and supporting facilities factors. The plus of the maternity class is this educational method could provide comprehensive antenatal information for pregnant women. The face-to-face antenatal consultation have several weaknesses including the method can only cover limited information, the problem related health-care providers management and time of delivery. It is recommended for further researchers to conduct a study of antenatal education model, initially with the investigation of essential assessment of pregnant women and health providers, following with designing and conducting trials.

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