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AN ETHNOGRAPHY STUDY OF NUTRITIONAL CONDITIONS OF PREGNANT WOMEN IN BANTEN INDONESIA

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Abstract

Maternal mortality in childbirth in developing countries is still high. The study describes the qualitative methods used to examine the knowledge, attitude, beliefs and behaviour related to nutrition and nutritional supplementation of pregnant women. The role of village midwives and cadres' in relation to nutrition education resulted in improving nutritional behaviour of pregnant women to some extent, but poverty and culture restricted the ability of pregnant women to access better food. The study shows that the position of pregnant woman is low within the hierarchy of both the health care system and the power structures of the broader community. Husbands, mothers-in-law, village midwives, cadres and village leaders all have more power in determining nutrition during pregnancy. However, some women tried to eat better and more nutritious food in secret, thereby subverting culture and the authority of husbands and mothers-in-law.

Keywords: belief in food, dietary pattern during pregnancy, Indonesia, nutrition, subverting culture, village midwife roles

Introduction

Approximately 600,000 women die each year due to complications associated with pregnancy and childbirth across the world.[1,2,3,4] There is great disparity in mortality and morbidity rates between rich and poor nations, with more than 60% of maternal deaths occurring in Asia, thus showing that pregnant women in developing countries in Asia are facing a high risk of death at childbirth Only a few Indonesian studies have explored the cultural and social beliefs about nutrition and food. One study found that Indonesian women are often the last and the least to eat at mealtimes in the family, resulting in low nutritional foodintake,[5,6] but the study did not specifically examine the beliefs about food during pregnancy. Nor are there any Indonesian studies examining the beliefs and practice of midwives and cadres related to nutrition in pregnant women. The present study examines the knowledge, attitude, beliefs and behaviour related to nutrition and nutritional supplementation of pregnant women.

Methods

This ethnography study is the first part of an operational research, with an ethnography study in the first stage and intervention stage by empowering the cadres and village midwives based on the first stage result, than the third stage was also ethnography study to measure the effectiveness of intervention. The methods used are interview, observation and field notes of the participant. The characteristics of the sources are provided first followed sources used for ethnographic study. The sources used for data collection were: pregnant women, midwives and cadres. For pregnant women in total 20 women from the intervention villages and 20 women from the comparison villages participated in this part of the study. Purposive sampling was used to ensure a broad age range of characteristics were present in the participants (e.g. parity, age and gestation) reflecting the range of characteristics in the target population in villages. The researcher with either the cadre or the village midwife approached the pregnant women in the villages when they came for an appointment at the Posyandu and asked them if they would agree to participate in the study.

The practice of village midwives and cadres' activities and their communication with clients, about nutrition and nutritional behaviour, were observed by the researcher in both the intervention and comparison villages. The transcribed interview and observation data were analyses manually by thematic content analysis.[7-10]

Results and Discussion

As was to be expected, there were no differences between the women living in the intervention villages

and those living in he comparison villages in relation to the practices and beliefs. The results of the study were grouped under the follewing themes:

What the women ate during pregnancy. The participants talked in detail about why they avoided certain foods. They named a wide range of foods that were avoided, and the important thing was that many beliefs seemed to be contradictory. All participants described rice as their staple food. They ate rice two or three times a day with vegetables, tofu, tempeh (soya bean) or sometimes meat depending on their ability to buy it. They also explained that the fruit they ate were mostly papaya and banana.

Approximately one quarter of the women indicated that they limited their food intake during pregnancy. These women believed that if they consumed less food than usual during pregnancy, the baby would be smaller and the birth would therefore be easier. In contrast, half of the women believed that the size of the baby was not affected by how much they ate. The remaining quarter of women stated that they did not alter the amount of food they ate.

Beliefs in food restriction during pregnancy. Nearly half of the women stated that they continued with their usual diet and ate everything without restriction as they did before pregnancy. They did not think it was necessary make any changes during their pregnancy. What they ate depended for some upon the money available. One woman was ambivalent about food restrictions for pregnant women that had been recommended by her parents. She said: "*Food restriction is on one hand wrong, but sometimes it is right".*

Table 1. Recommended Dietary Pattern During Pregnancy in Western and Indonesian Style Food

Western Style Food	Indonesian Style Food	Number of Servings	Serving Size	
			Western	Indonesian
dairy products, milk, cheese, yoghurt	tempeh, tofu, milk powder	2	227 gms	2-3 pieces (4x4 cm)
lean meat, fish, poultry, cheese, eggs	dry fish, eggs, poultry, meats	1	57 gms	seldom eaten or eaten in small amount s
bread and cereals	rice	3 or more	1 slice or ½ cup	1 rice scoop
vegetables: dark green leaf or orange yellow, other vegetables	vegetables: dark green leaf or orange yellow, other vegetables	1-2 or more	½ cup	1 small bowl
fruits: citrus fruit or juice, cantaloupe, strawberries other fruits	fruits: citrus fruit, papaya, mango, banana and other fruits	1-2 or more	½ cup	2-3 pieces (3x5 cm)

However, over half of the women believed that they had to avoid some kinds of food during pregnancy. They all stressed that their parents had recommended this. Generally, these women explained that the food that they avoided was 'hot food' especially in the first trimester. For example: pineapple, calamari, soft drink and ice. In Indonesian cultures, foods classified as 'cool'are generally considered healthier than those classified as 'hot'. Foods such as leafy vegetables and most fruit are major dietary sources of vitamin A and are classified as 'cool' foods. There are two main reasons that women gave for restricting certain foods. They mentioned if they ate those restricted foods that either the baby or mother would be affected. For example: eating chili during pregnancy was believed to result in more painful childbirth. They believed that chili affected the cervix and vagina and would make the tissue rougher. Around forty percent of the pregnant women in the study believed that calamari is dangerous for their baby. They were afraid that their baby would become clumsy, black or smelly like calamari.

Interestingly, when talking about avoiding hot foods, pineapple was also considered to be a hot food. There were also some individual practices described by one or two women that did not seem to be common practice. One woman said that she avoided eating chicken giblets because this would make her baby blue. Another woman told me that she did not eat meatballs during pregnancy because of her personal taste, she would feel nauseous if she ate meatballs. Another interesting belief described by one woman was that she avoided eating eggplant during pregnancy because eggplant would produce eye damage to the baby.

Some women were afraid to answer the question about food restrictions. Restriction of drinks was another practice that some women followed during pregnancy. Most of the women avoided drinking ice. They were afraid that if they drank ice, their baby would be big, leading to difficult childbirth.

Influence of Community and Family on Women's Nutrition Behaviour. Being 'afraid, of husband and parents and 'depending' on a husband's decisi ons were generally explanations given by women who were not eating or drinking specific foods. Most of the participants cooked their food themselves after buying what they needed from the market or from the'vegetable man', who came to their door. Some participants lived with their mother or mother-in-law. They talked about having to ask the approval of their mother for the vegetables that they wanted to buy. If they got permission from their parents they would buy them and cook the food they wanted. But if their parents did not agree with them, they not buy what they wanted. Women always did the cooking, and the husband was the first person to be served. They explained that because their

husband was the breadwinner, they deserved the best food. Some participants, as was common in the village, had papaya and banana trees as well as cassave and chili plants in yards. The young leaves of the papaya tree and the cassava plant are good for cooking a healthy vegetable dish. As for protein foods, they mostly bought tofu or tempe, made from soy beans, at affordable prices, or sometimes they bought fresh fish or dried fish. Chicken or meats are considered luxury food.

All participants were Muslim. According to Muslim regulation there are some foods to be avoided at all times, e.g. pork and alcohol. For that reason all the women who participated in this study never cooked pork.

Women's attitude toward iron supplementation. One of the most important issues to be examined in this study was the level of iron supplement consumption by pregnant women. As described before, the distribution of iron supplements during pregnancy was an important government policy for improving the nutritional status of pregnant women. During the interviews, all women were asked whether they had received and/or taken iron medication and they were asked to describe their feelings about taking iron supplements. In answering this question, all participants who had previous pregnancies spoke in detail about what they had done during the previous pregnancy and what they intended to do in the current pregnancy. There were only eight women, out of the 40 interviewed, who had completed their iron supplements by the end of their pregnancy. Most of the women reported consuming iron supplements irregularly, both in their previous pregnancies and in the current pregnancy.

Pregnant Women's Perception of Health and Nutrition Services. All participants were asked to express their opinions and expectations of the health service, especially nutritional service for pregnant women. The analysis of this data indicated that seventy five percent of the participants were not satisfied with the current services. In the beginning of the interviews the women always described receiving 'good' services. Later in the interviews, however, when the women became more relaxed they brought up some issues that conveyed dissatisfaction with current services.

Women's expectation of health services. All participants believed that improving health was important and that this was related to reducing maternal and infant mortality. They also understood it was important to improve nutrition among pregnant women. It was identified that most of the participants believed that the health services had to be improved. They also suggested improving the communication skills and knowledge in nutrition amongst health workers, especially in the rural areas.

Communication with health provider. Three themes relating to the communication skills of the midwives were identified in this part of the analysis.

Sub theme 1: Having to ask the midwife. Many women reported that the village midwife was not forthcoming with information and advice in relation to all aspects of pregnancy care especially on nutrition education. The women felt that they were the ones who had to ask for information.

The experiences of these women were confirmed by the analysis of the observations of interactions. The village midwife communicated in very limited conversations with the women. When she gave the supplements to the women, she told them to take the supplement every night before going to bed, without giving any further explanation.

Sub theme 2: Not giving enough information. Also the women themselves were concerned about the fact that the midwife often did not give enough information about the medications that she handed out to them.

This statement confirmed the observations of the interactions that took place at the Posyandu during antenatal visits. In many interactions, the village midwives did not give enough information about iron supplements in that they did not explain the side effects or benefits of iron supplements, and the women took the supplements and went home without further questions.

Sub theme3: Comfort in talking to midwives and cadres. In these interviews most of the women stated that they were more satisfied and felt more comfortable when seeking or receiving information from the village midwife in comparison to the visiting medical doctor. Other women spoke negatively about cadres. They did not believe that cadres had much knowledge about nutrition. The women in this study felt strongly that health providers should be able to explain about the medication that they were distributing to clients.

The results about themes were brought together and discussed in relation to the socio cultural beliefs, community values, and professional and cadre behaviour that influence the dietary intake of pregnant women in villages in this part of Indonesia.

Authoritative Knowledge, Culture, Gender, Religion and Poverty. The concept of authoritative knowledge by Jordan.[11] provides a suitable theoretical framework to understand some of the key findings of this study. The following diagram illustrates the hierarchy of legitimate knowledge and the relative position of health care providers and pregnant women found in this study. This figure shows how powerless pregnant women are in the health and social/cultural system (Figure 1). They are at

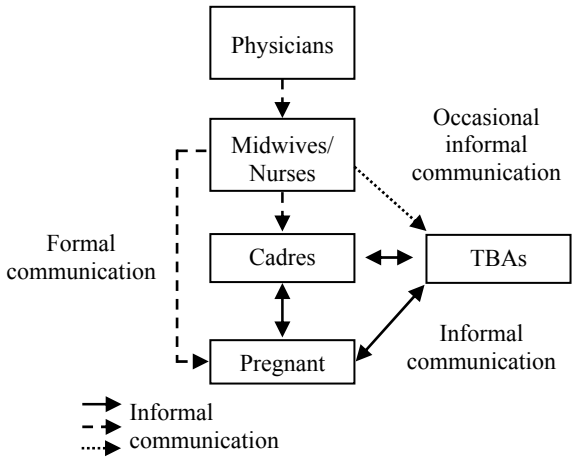

Figure 1. Hierarchy of Knowledge and Communication Patterns Demonstrated in the Health System in this Research

the bottom of the hierarchy and are seen to have no considered knowledge of pregnancy.

Community and religious leaders have the greatest power in the villages, and all the villagers, including pregnant women and her family, must follow their directions. As Ali noted in a study he made,[12] the Indonesian pregnant women in this study must always follow the advice or instruction of her husband, parents or parents-in-law who have more authoritative knowledge than she does. In the familial situation, authoritative knowledge is embedded in cultural rules about the roles and responsibilities of wives, daughters, husbands, parents and in-laws. In the wider society there are senior men and women, village elders, community and religious leaders whose authority is legitimated by cultural dictates This research shows that the position of a pregnant woman is low; most of the people surrounding them are considered more knowledgeable about the pregnancy than they are, thus have more power to determine what they can and cannot eat and drink, or what they can and cannot do on a day to day basis.

In village contexts in Indonesia in this research, pregnant women have little or no ability to participate in decision making, to discuss, challenge or agree with health care personnel, family members or village elders. Other researchers have also shown similar findings, see WHFWP.[5,6] Given this situation, it is perhaps not surprising that the women in this study who were shown on occasion to rebel or subvert the culture did so in quiet and covert ways.[13] This explanation helps us understand why most women do not follow the instructions of the midwife or cadre in relation to iron supplements. Similarly, perhaps this helps us understand why a pregnant woman will eat meat in secret in contradiction to cultural dictates and the wishes of her husband and/or relatives. This study shows that she will only do so in secret so as not to confront authority.

A report by the United Nations noted that cultural beliefs and social practices determine people‟s responses to directed behavior change.[14] This study also found that people‟s pre-existing beliefs and practices affected the ways in which individuals and groups responded to health worker initiated interventions.

According to Rizvi, nutrition education messages can only be developed and communicated effectively if the messages are culturally sensitive and the recommended food is culturally appropriate.[15] Health workers and women may hold conflicting assumptions regarding certain beliefs. For example, a health provider may not be comfortable or effective talking about food taboos with pregnant women if they do not understand the origins of the belief or personally disregard these cultural beliefs. The professional education of village midwives in this study had not incorporated sensitivity to cultural issues and thus the midwives instructed women to eat food that contradicted deeply held cultural beliefs of the women and their families. Within health services in Indonesia, culture inhibits the freedom of women to speak up about their health. The same finding was reported by Ali in Malaysia.[12] She attributes the lack of power of rural Malaysian and other Asian pregnant women in the medical system to a number of factors. The internal hierarchies of the medical system along with historical and cultural factors all contrive to make village women the most powerless. Another study by Burk reports similar findings within a very different culture in relation to the importance of family.[16,17] They found that the Mexican American socialization process is centered on the concept of family. Family is valued as an interdependent and cooperative network of individuals who are closely connected for the good of the family as a whole. Individuals are expected to show loyalty and support and to fulfill role obligations in the family. In return, they receive emotional and material support from the family. As in Indonesia, help and advice are usually required from within the family system first, and important decisions are made as a group. A pregnant woman may want several immediate or extended family members present during her prenatal care visits or during her intrapartum experience to ensure family support and involvement and their opinions will govern her response to health care.[16,18]

One of the interesting findings of this study seems to underline women‟s low status and its relation to nutrition. A report by the United Nations in 1991, claims that malnutrition in pregnant women is the major direct cause of high maternal mortality in developing countries and that discrimination against women is a contributory factor.[19] In many developing societies,

where girls and women are considered inferior to boys and men, they are often given smaller amounts of food, as well as less protein-rich and iron-rich food than boys and men.[20]

Women"s low status in Indonesia and other developing countries, especially in rural areas, makes the situation doubly difficult. The difficulties were revealed in many ways in this research. As previously discussed, a pregnant woman will usually follow the instructions of her mother/mother-in-law and husband to avoid certain foods For a woman living with her in-laws, the mother-in-law was the most influential and took good care of her daughter-in-law so that she would have a healthy baby.

In a number of countries women suffer social, cultural and religious restriction. While women in the developed countries can speak more openly, women in less developed countries have to use their power in "subtle and non threatening ways" and secretly. In this research there were some examples where women appear to subvert the culture in order to maintain their health and the health of their baby, when they have knowledge that stimulates them to do so. For example one woman in the intervention village said that she was not allowed to eat calamari (fish) but when her parents and husband were not around, she would eat it. Poverty is one of the major causes of malnutrition.[21] It has a major impact on pregnant women. Women in this study could not afford to buy good food.

Conclusion

The ethnographic study found that there was a strong influence of the socio-cultural beliefs in the nutritional intake of pregnant women in the research area. The husband and mother or mother-in-law played an important role in the selection, preparation and eating pattern of pregnant women. Decision on the type of food, food restriction and preparation were ultimately in the hand of mothers or mother-in-law and husbands. In the observational data, findings showed that village midwives used an inappropriate approach and communication style that made women feel inferior and made them avoid communicating or complying with their advice. The influence of the socio-cultural aspects including gender issue and poverty are very strong in the nutrition intake as well as health decision making of pregnant women. The limitation is founded during the study, namely the finding will be more valid if this data are supported by aquantitative data that show the sarisfaction of pregnant women about the health services in the rural area. Further qualitative research would be valuable to explore the socio-cultural influence to the health behavior, especially the role of mother- in- law to the diet and eating behavior of the family.

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