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# Knowledge and Eating Behavior of Teenage Pregnancy

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***Abstract*****—**The purposed of this research was to study the eating habit of teenage pregnancy and its relationship to the knowledge of nutrition during pregnancy. The 100 samples were derived from simple random sampling technique of the teenage pregnancy in Bangkae District. The questionnaire was used to collect data with the reliability of 0.8. The data were analyzed by SPSS for Windows with multiple regression technique. Percentage, mean and the relationship of knowledge of eating and eating behavior were obtained. The research results revealed that their knowledge in nutrition was at the average of 4.07 and their eating habit that they mentioned most was to refrain from alcohol and caffeine at 82% and the knowledge in nutrition influenced their eating habits at 54% with the statistically significant level of 0.001.

***Keywords*****—**Teenage pregnancy, knowledge of nutrition, eating habit.

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## I. Introduction

TEENAGE pregnancy is supposed to be a risky condition affecting both the fetus and the pregnancy. It is also a big social problem and public healthcare of the country because the number of teenage pregnancy in Thailand has increased significantly. According to the current statistics, 14.7% of pregnant women are teenage pregnancy or 9 teenage pregnancies per 1000 populations [1]. This high number of teenage pregnancy also reveals that 80% of them were not ready to become a mother. The teenage pregnancy is a problem and risky because it is still during the physical growing and requires a lot of nutrition to develop their bodies. So, being pregnant during the teenage affects their own health leading to pregnancy complications such as anemia, malnutrition, etc. Moreover, teenagers tend to be eating disorder, taking alcohol and drug, or smoking which is very danger for the fetus resulted in insufficient calcium and protein in fetus and high blood pressure in the mother leading to miscarriage and premature delivery. It is often found that babies with teenage pregnancy tend to perinatal mortality, low weight, low immunity, health impairment, and easily infectious [2], [4] With the reasons mentioned above, the researchers are interested to investigate knowledge and eating habits of teenage pregnancy.

The findings of this study can be used as a guideline to develop and revise the contents in the subject of nursing for mother and baby and midwifery especially on the topic of Health Promotion of Teenage Pregnancy. The content will be up-to-date and meet the requirement of the target group, i.e. teenage pregnancies. The findings can be a basic knowledge for every pregnancy to take care of their health and the fetus to become a healthy baby without complications.

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## II. Objective of the Study

1. Investigate the nutrition knowledge of teenage pregnancy.
2. Investigate the eating habit of teenage pregnancy.
3. Investigate the prediction and the relationship between nutrition knowledge and eating habit of teenage pregnancy.

## III. Research Methodology

### *A. Population*

Population in this study included 114 teenage pregnancies that came at Rachapipat Hospital, Bangkae District, Bangkok.

### *B. Sample Group*

According to the Yamane Formula, the sample group of this study should be 88 mothers, but the researcher increased the sampling size into 100 mothers derived from simple random sampling technique.

### *C. Research Tool*

The questionnaires to investigate eating habits and nutrition knowledge of teenage pregnancies consisted of 3 main parts. Part 1 was about personal details of the pregnancies consisted of 20 open ended questions about the personal details, economic status, and the details about their pregnancy. Part 2 consisted of 31 questions on the food nutrition (15 items) and suitable food for the pregnancies (16 items). They are in the form of 5 Likert Rating scales; strongly agree (5), agree (4), not sure (3), disagree (2), and strongly disagree (1). Part 3 was the checklist on the eating habits of teenage pregnancies developed from documents and research about teenage pregnancies on the consuming of carbohydrate, protein, fat, vitamin, and minerals of 17 items. The criteria of scoring are usual habits = 3, conducting some time = 2, infrequent habits = 1, and never = 0.

### *D. Data Analysis*

The data were divided into 2 main groups for the analysis as follows.

1. Personal information, nutrition knowledge, and eating habits of teenage pregnancies were analyzed by descriptive statistics such as frequency, percentage, arithmetic mean, and SD.

2. To find the relationship of the data, Pearson Correlation Coefficient was used while the multiple regression technique was used to predict and forecast the factors.

## IV. Data Collection

TABLE I
General Information of Teenage Pregnancies

| Variables | Content | Number (n=100) | Percentage |
|---|---|---|---|
| Age | Less than15 years | 9 | 9.00 |
| | 15 – 16 years | 15 | 15.00 |
| | 17 – 18 years | 53 | 53.00 |
| | 19 years | 23 | 23.00 |
| Education level | Illiteracy | 2 | 2.00 |
| | Primary | 36 | 36.00 |
| | Secondary | 66 | 66.00 |
| Career | Unemployment | 68 | 68.00 |
| | Employees | 32 | 32.00 |
| Marital status | Married | 89 | 89.00 |
| | Single | 11 | 11.00 |
| Family income | Equal/less than 5,000 Baht | 2 | 2.00 |
| | 5,001 -10,000 Baht | 45 | 45.00 |
| | 10,001 -15,000 Baht | 20 | 20.00 |
| | 15,001 -20,000 Baht | 18 | 18.00 |
| | Over 20,000 Baht | 15 | 15.00 |
| Times of pregnancies | 1st | 90 | 90.00 |
| | 2nd | 8 | 8.00 |
| | 3rd | 2 | 2.00 |
| Gestational age when first coming to the hospital | Less than 12 wks | 23 | 23.00 |
| | 13 – 16 wks | 12 | 12.00 |
| | 17 – 20 wks | 20 | 20.00 |
| | Over 20 wks | 45 | 45.00 |
| Current gestational age | Less than or =20 wks | 24 | 24.00 |
| | Over 20 weeks | 76 | 76.00 |
| Weight before pregnancy | Less than 45 kg | 23 | 23.00 |
| | 45.1 – 50.0 kg | 24 | 24.00 |
| | 50.1 – 55 kg | 17 | 17.00 |
| | 55.1 - 60 kg | 18 | 18.00 |
| | Over 60 kg | 18 | 18.00 |
| Pre-natal checkup regularly | Every time | 85 | 85.00 |
| | Some times | 15 | 15.00 |
| Get knowledge about nutrition for pregnancy | Yes | 84 | 84.00 |
| | No | 16 | 16.00 |

It can be seen from Table I that all sample groups age between 17-18 years old with 66% had secondary education. Most of them or 68% were unemployed with married status at 89%. The average family income was 5,001-10,000 Baht at 45%. Most of them or 90% was the 1st pregnancy. They reported that they came to see the doctor at the gestational age of 20 weeks at 45% while 20 teenage pregnancies came to the hospital at the gestational age of 17-20 weeks. During the study, they had the gestational age of over 20 weeks with the weight before pregnancy between 45.1-50 kg and 38% had the hematocrit between 33.1 and 36.0. Most of them or 85% came to the pre-natal checkup regularly.

Table II shows that the sample group reported nutrition knowledge at good level with the mean of 4.07 and SD = 0.717. When consider in details, it was found that the aspect with the highest level was item 9; Milk contains protein and calcium for healthy bone of the fetus with mean = 4.62 and SD = 0.51 followed by item 28; Pregnant women should refrain from alcohol and caffeine drinks with mean = 4.47 and SD = 1.02.

Table III reports the nutrition knowledge of teenage pregnancies. In overall, they reported high knowledge on the nutrition values at the mean of 3.75 and SD = 0.73. When consider in details, it was found that the aspect with the highest level was item 9; Milk contains protein and calcium for healthy bone of the fetus with mean = 4.62 and SD = 0.51. The aspect with the least mean was item 14; Fat is the source of energy for the development of fetus where mean = 3.12 and SD =0.91.

## V. Conclusion and Discussion

The results of the objective 1 which was on the knowledge of nutritional values showed that they had good knowledge at the average mean of 4.07 and SD = 0.717. It can be explained that the sample group had good nutrition knowledge because there are both government and private organizations promoted on this knowledge. They saw the importance of the teenage pregnancy problem and work together to develop the knowledge including reproductive health. The Department of Health, Ministry of Public Health and the Ministry of Social Development and Human Security, the Office of Women Affairs sees the importance of teenage pregnancy problem; so, they gave the suggestions on the good nutritional food for them resulting in healthy mothers and fetuses. The finding supported the study of the Faculty of Public Health, Harvard University reporting that the health of fetus relates directly with the types of food consumed by mother. It was found that 95% of pregnant women who had good eating habits gave birth to healthy babies while the pregnant women with bad eating habits (processing food) gave birth to only 8% of healthy babies. 65% of the babies were premature delivery, perinatal mortality, or impairment health [3].

The objective 2 which is about the eating habits of pregnant women showed that teenage pregnancy in this study reported good eating habits. They knew that food was important to their bodies and the fetuses'. During the pregnancy, the bodies required more protein and calcium for the development of fetuses' bones. Moreover, folic acid is important to the development of fetuses' brain system. Iron is also important for the hemoglobin of the fetuses. This supported the work by [5] stating that pregnancy should have more vegetable, fruit, and milk and avoid pickle and medium cooked food. The objective 3 which was about the prediction and the relationship between knowledge and eating habits showed that according to the regression analysis result, the knowledge of nutrition could predict the eating habits of teenage pregnancies at 54% with the statistically significant level of 0.001. That is to say nutrition knowledge of teenage pregnancies has the influence on the eating habits in positive relationship [5]. Eating habits are very important for the

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pregnant women especially teenagers. Healthy teenagers give birth to healthy babies. It is important to give the knowledge of nutrition to teenage pregnancies because it will result in good quality of human resources.

TABLE II
NUTRITIONAL KNOWLEDGE OF TEENAGE PREGNANCIES (N=100)

| Variables | Average | SD | Knowledge level |
|---|---|---|---|
| 1. Carbohydrate is the energy source for mother and fetus | 3.75 | .73 | good |
| 2. Protein from meat helps the development of the fetus | 4.07 | .56 | good |
| 3. Animals' internal organs support hemoglobin of the pregnancies | 4.01 | .67 | good |
| 4. Animal blood from pork, chicken, duck help support hemoglobin of the pregnancies | 4.09 | .65 | good |
| 5. Seafood such as fish, clam, shrimps, crab, squid, etc contain iodine that prevents Congenital Hypothyroidism | 4.22 | .75 | good |
| 6. Bean curd is the source of protein from plants which is necessary for the development of fetus. | 3.88 | .67 | good |
| 7. Every type of nuts and peas is the source of protein from plants which is necessary for the development of fetus. | 3.99 | .69 | good |
| 8. Egg is a good source of protein and minerals for the development of mother and fetus | 4.30 | .23 | good |
| 9. Milk contains protein and calcium for healthy bone of the fetus | 4.62 | .51 | Very good |
| 10. Vegetables of several colors are the sources of vitamin and minerals essential for mom and fetus | 4.17 | .64 | good |
| 11. Green vegetables are the sources of vitamin and folate essential for mom and fetus | 4.27 | .66 | good |
| 12. Fruit is the source of vitamin and minerals essential for mom and fetus | 4.33 | .62 | good |
| 13. Fruit and vegetable help the excretory system of pregnant women | 4.45 | .52 | good |
| 14. Fat is the source of energy for the development of fetus | 3.12 | .91 | moderate |
| 15. Drinks with caffeine such as soft drink, tea, coffee, and energy drink can affect the health of mom and fetus leading to high blood pressure, Arrhythmia, etc | .61 | 1.30 | good |
| 16. Pregnant women should eat carbohydrate such as rice, noodle, etc at 2-3 scoops /meal | 3.78 | .86 | good |
| 17. Pregnant women should eat meat such as fish, pork, chicken at 3-4 spoon/meal | 4.05 | .62 | good |
| 18. Pregnant women should eat seafood such as sea fish, shrimps, clams, crab, squid, etc in alternative with meat 2-3 times/week | 4.18 | .69 | good |
| 19. Pregnant women should eat animals' internal organs or blood of poultry in alternative with meat 2-3 times/week | 3.94 | .79 | good |
| 20. Pregnant women should eat soya bean curd in alternative with meat some times | 3.75 | .70 | good |
| 21. Pregnant women should eat one egg/day | 4.21 | .73 | good |
| 22. Pregnant women should drink fresh milk or soya bean milk 2 glasses/day | 4.42 | .59 | good |
| Variables | Average | SD | Knowledge level |
| 23. Pregnant women should eat vegetable 2 scoops/meal | 4.25 | .58 | good |
| 24. Pregnant women should eat 1 small plate of fruit or 12 pieces of fruit every meal | 4.20 | .62 | good |
| 25. Pregnant women should eat sweet some time or 2-3 times/week | 3.47 | .69 | moderate |
| 26. If pregnant women eat fried food or food with fat, they should not eat food with coconut milk or butter on that day | 3.39 | .93 | moderate |
| 27. Pregnant women should refrain from pickled food | 4.12 | .96 | good |
| 28. Pregnant women should refrain from alcohol and caffeine drinks | 4.47 | 1.02 | good |
| 29. pregnant women should drink 8-10 glasses of water/day | 4.60 | .49 | Very good |
| 30. If pregnant women gain more weight, they should reduce carbohydrate and fat | 3.98 | .77 | good |
| 31. If pregnant women get swollen, they should reduce salty food | 3.93 | .66 | good |
| Total | 4.07 | .717 | good |

TABLE III
KNOWLEDGE AND EATING HABITS OF TEENAGE PREGNANCIES ON THE ASPECT OF NUTRITIONAL VALUES (N = 100)

| Variables | Average | SD | Knowledge level |
|---|---|---|---|
| 1. Carbohydrate is the energy source for mother and fetus | 3.75 | .73 | good |
| 2. Protein from meat helps the development of the fetus | 4.07 | .56 | good |
| 3. Animals' internal organs support hemoglobin of the pregnancies | 4.01 | .67 | good |
| 4. Animal blood from pork, chicken, duck help support hemoglobin of the pregnancies | 4.09 | .65 | good |
| 5. Seafood such as fish, clam, shrimps, crab, squid, etc contain iodine that prevents Congenital Hypothyroidism | 4.22 | .75 | good |
| 6. Bean curd is the source of protein from plants which is necessary for the development of fetus. | 3.88 | .67 | good |
| 7. Every type of nuts and peas is the source of protein from plants which is necessary for the development of fetus. | 3.99 | .69 | good |
| 8. Egg is a good source of protein and minerals for the development of mother and fetus | 4.30 | .23 | good |
| 9. Milk contains protein and calcium for healthy bone of the fetus | 4.62 | .51 | Very good |
| 10. Vegetables of several colors are the sources of vitamin and minerals essential for mom and fetus | 4.17 | .64 | good |
| 11. Green vegetables are the sources of vitamin and folate essential for mom and fetus | 4.27 | .66 | good |
| Variables | Average | SD | Knowledge level |
| 12. Fruit is the source of vitamin and minerals essential for mom and fetus | 4.33 | .62 | good |
| 13. Fruit and vegetable help the excretory system of pregnant women | 4.45 | .52 | good |
| 14. Fat is the source of energy for the development of fetus | 3.12 | .91 | moderate |
| 15. Drinks with caffeine such as soft drink, tea, coffee, and energy drink can affect the health of mom and fetus leading to high blood pressure, Arrhythmia, etc | 3.61 | 1.30 | good |
| 16. Pregnant women should eat carbohydrate such as rice, noodle, etc at 2-3 scoops /meal | 3.78 | .86 | good |
| Average | 3.75 | .73 | good |

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## VI. Suggestions

### *A. Suggestions to Application*

- Emphasize learning of teenage pregnancy for knowledge of correct eating flour and sugar as a result of research which indicated that teenage pregnancy have moderate knowledge of eating flour and sugar.
- Promote correct eating behavior for all food groups as a result of study which found that all pregnant women have good overall eating knowledge. However, teenage pregnancy having incorrect eating behavior such as eating pickles, alcohol, and caffeine.
- Provide eating knowledge for teenage pregnancy individually according their favorite and limitations. This could help teenage pregnancy for better knowledge application.

### *B. Suggestion for Further Research*

- The research shall be in more deep details in order to obtain the knowledge level and eating behavior of the teenage pregnancy
- The research shall be followed up for eating behavior of teenage pregnancy periodically.
- The research shall be studied for other factors influence teenage pregnancy eating.

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## References

[1] Boonying Manaboriboon (2010) Teenage Pregnancy: Role of Health Care in OB-GYN in Practice 2012, Thailand. Bangkok: printing, Amaarin printing.
[2] Denise G. Link (2012) Nursing Care of the Family during Pregnancy in Maternity & Women's Health Care, United States of America, St.Louis: Elsevier Mosby.
[3] Nutrient need during Pregnancy. Available from http://www.doctor or th/article/detail/3591.
[4] Susan, S. Ricci (2007) Essentials of maternity, newborn, and women's Health nursing, Philadelphia: Lippincott Williams & Wilkins.
[5] Pimsiri Phromchaisa (2012) Effect of Social Support Enhancement on Maternal Role among Adolescent Pregnant Women Thesis, Faculty of Nursing, Chiang Mai University.

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