Ethno Med, 11(1): 55-62 (2017)
DOI: 10.31901/24566772.2017/11.01.09

Evaluation of Health-Related Behaviors and Attitudes of Women During Pregnancy in Edirne, Turkey

Banu Karaoz Weller[1] and Ahsen Sener Sirin[2]

[1]Independent Researcher Nursing, Stuttgart, Germany
[2]Independent Researcher Nursing, Istanbul, Turkey

KEYWORDS Habits. Knowledge. Practice. Educational Level. Society

ABSTRACT The purpose of this paper was to determine the health-related attitudes, behaviors and practices of women during pregnancy, and to estimate proper nursery applications. Data was derived using a "Personal Identity Questionnaire Form" and "Health Practice Questionnaire-II" with 244 pregnant women. A remarkable difference for Health Practice Questionnaire-II scores was noted with respect to professions, educational levels and body-mass indices of pregnants. Health Practice Questionnaire-II scores displayed significant variation between pregnants whose husbands assisted them during daily life and whose husbands did not. Promotion of women's knowledge, attitude and behaviors on health can be accomplished via education and modification of behaviors.

INTRODUCTION

Preservation of a healthy society can be achieved by maintaining women's health including physical, mental and social aspects (Perumal et al. 2013). Since mother comfort is a critical issue for a vigorous generation, pregnant women and children have priority in access to healthcare (Perumal et al. 2013). Pregnancy, infancy and childhood bring confident further risks (Zhao et al. 2009). More than 500,000 women die yearly worldwide due to maternal, perinatal and contraceptive complications (Perumal et al. 2013; Zhao et al. 2009). In other words, at least 1,600 women die due to causes associated with birth and pregnancy every day (Perumal et al. 2013).

According to World Health Organization (WHO) reports, ninety-nine percent of maternal mortality is attributed to preventable reasons. Even though pregnancy and birth are physiological events, necessity of healthcare is increased throughout pregnancy and perinatal periods (Mbada et al. 2014). Hence, primary healthcare for pregnant women in puerperal period must be provided by well-trained healthcare professionals (Masuku and Lan 2014). Descriptive data including age, obstetric history and ethnicity must be considered in order to amplify the efficacy of prenatal education (Cormick et al. 2012). Reduction of amount of medications used during perinatal course was associated with management of an effective prenatal training (Masuku and Lan 2014; Cormick et al. 2012).

Questionnaires are useful tools to assess healthcare applications, but they have been rarely used for healthcare status of pregnant women (Lindgren 2005). It is widely accepted that provision of good prenatal care and training can decrease rate of perinatal mortality (Zhao et al. 2009; Mbada et al. 2014; Masuku and Lan 2014). Since nurses are in close communication with pregnant women under obstetric follow-up, they may determine the problems in personal and healthcare related issues. Therefore, nurses can contribute to the detection, avoidance and elimination of improper behaviors and attitudes of pregnant women.

The aim of this paper was to determine the health-related attitudes and behaviors of pregnant women and to estimate proper nursery applications that may aid in improvement and promotion of women's health during pregnancy.

MATERIAL AND METHODS

This cross-sectional study was performed after the approval of local Institutional Review Board (2014/600-669). Participants were instructed about the procedures for application of questionnaires in detail and written informed consent was obtained.

Address for correspondence:
Banu Karaoz Weller
Independent Researcher Nursing,
Stuttgart, Germany
Telephone: +902525128028,
E-mail: banukaraoz@gmail.com

This study included 244 pregnant women hospitalized in the obstetrics and gynecology department of a tertiary care centre between February 24th, 2014 and May 23rd, 2014. Age <18 years, illiteracy, multiple pregnancies, psychiatric disorder and any obstetric complications constituted the criteria for exclusion.

Demographic data and descriptive variables of pregnant women were collected using "Personal Identity Questionnaire Form" (Appendix A). Behaviors, knowledge and attitudes related with health practices during pregnancy were obtained by means of a "Health Practice Questionnaire-II" (Appendix B) (Lindgren 2005). Health Practice Questionnaire had been validated into Turkish language by Er (Er 2006).

These questionnaires were administered based on a face-to-face interview. The "Personal Identity Questionnaire Form" was composed of 22 questions that focused on socio-demographic and familial features of the pregnant women and their husbands, including site of accommodation, level of income, body-mass index, status of prenatal care, history of venereal disease and whether the husband helped during daily life. "Health Practice Questionnaire-II" consisted of 34 items that assess the adequacy of health practices in six aspects. These aspects involved resting and exercise, security, nutrition, avoidance of harmful substances, access to healthcare and education. Answers to items 1-17 include a 5-point "Likert scale" with options ranging from "never" to "always". Scoring was made as follows: (a) Never: 1 point, (b) Rarely: 2 points, (c) Sometimes: 3 points, (d) Often: 4 points, and (e) Always: 5 points. Items 18-34 were evaluated similarly with a 5-scale scoring. Reverse coding was made for items 6, 7, 8, 22, 23, 24, 25, 26, 27, 33 and 34. Lowest and highest scores that can be achieved from questionnaire are 34 and 170, respectively (Lindgren 2005).

A high overall score is interpreted in accordance with an improvement of health-related behavior and attitude of the pregnant.

Statistical Analysis

The data has been analyzed with Statistical Package for Social Science program version 16.0 (*SPSS Inc., Chicago, IL, USA*). Descriptive data was expressed as mean ± standard deviation or median (minimum-maximum). Level of significance was set at $p<0.05$. Reliability coefficient of HPQ-II was assessed with Cronbach's alpha and was found to be 0.644. Means and minimum-maximum values for items and variances are 3.025 (1.041-4.525) and 1.433 (0.039-2.614), respectively. A significant difference had been detected from measurements made from HPQ-II ($p<0.001$). Hotelling's T^2 test has indicated that there was statistically significant difference between average values obtained from scores of questionnaires ($p<0.001$).

RESULTS

Total number of pregnant women enrolled in this study was 244 and 5 age groups were constituted as 18-22, 23-27, 28-32, 33-37 and ≥ 38 years. Numbers and percentages of cases in these groups were 44 (18%), 71 (29.1%), 60 (24.6%), 52 (21.3%), and 17 (7%), respectively. No statistically significant difference could be detected between age groups in terms of Health Practice Questionnaire-II scores (p=0.849) (Table 1).

Marital statuses were identified as married (235, 96.3%), single (6, 2.5%), divorced (2, 0.8%) and unspecified (1, 0.4%). Of 244 participants, 181 (74.2%) were housewives while 63 (25.8%) pregnant women have been working. Pregnant women living in urban areas were 126 (51.7%), while 118 cases (48.3%) were living in rural areas.

Forty-one pregnant women (16.8%) were reported as having low income, while 203 cases (73.2%) were found to have either sufficient or high income. Frequencies of numbers of pregnancies in this series were as follows: 1 (n=91, 37.3%), 2 (n=81, 33.2%), 3 (n=41, 16.8%), 4 (n=15, 6.1%) and ≥ 5 (n=16, 6.6%). Of 244 pregnancies, 171 (70.1%) were planned and intentional. With respect to body-mass indices, 64 pregnant women (26.2%) were overweight and 39 (16.0%) were obese. Forty-two pregnant women (17.2%) complained that their husbands did not help during daily life. Only 1 pregnant woman (0.4%) reported a venereal disease history, while 179 cases (73.4%) had visited their obstetrician ≥ 5 times during their present pregnancies.

No statistically significant difference could be detected between age groups (p=0.849), marital statuses (p=0.379), economical status (p=0.539), numbers of pregnancies (p=0.057) and site of accomodation (urban vs. rural) (p=0.572) in terms of Health Practice Questionnaire-II (HPQ-II) scores. In contrast, a remarkable difference for HPQ-II scores was noted with respect

Table 1: Comparative overview of descriptive data groups with respect to their Health Practice Questionnaire-II scores

Variable		*n (%)*	*p Value*
Age Groups (Years)	18-22	44 (18%)	0.849
	23-27	71 (29.1%)	
	28-32	60 (24.6%)	
	33-37	52 (21.3%)	
	≥38	17 (7%)	
Marital Status	Married	235 (96.3%)	0.379
	Single	6 (2.5%)	
	Divorced	2 (0.8%)	
	Unspecified	1 (0.4%)	
Profession	Housewife	181 (74.2%)	0.001*
	Working	63 (25.8%)	
Site of Accommodation	Urban	126 (51.7%)	0.572
	Rural	118 848.3%)	
Economic Status	Low	41 (16.8%)	0.539
	Sufficient / high	203 (73.2%)	
Educational Level	Primary/secondary school	143 (58.6%)	<0.001*
	Lycee or higher	101 (41.4%)	
Educational Level of Husband	Primary/secondary school	57 (23.4%)	<0.001*
	Lycee or higher	187 (76.6%)	
Body-Mass Index	Normal	141 (57.8%)	0.004*
	Overweight	64 (26.2%)	
	Obese	39 (16.0%)	
Planning of Pregnancy	Planned	171 (70.1%)	0.083
	Unplanned	73 (29.9%)	
History of Venereal Disease	Yes	1 (0.4%)	0.219
	No	243 (99.6%)	
Assistance by Husband During Daily Life	Yes	202 (82.9%)	<0.001*
	No	42 (17.1%)	

(*Hint:* *: statistically significant)

to professions (p=0.001) and educational levels (p<0.001) and body-mass indices (p=0.004) of pregnant women as well as educational levels of their husbands (p<0.001). No difference was noted between planned or unplanned pregnancies (p=0.083) with respect to HPQ-II scores. Similarly, history of venereal disease seemed not to affect the HPQ-II scores, either (p=0.219).

Moreover, HPQ-II scores displayed significant variation between pregnant women whose husbands assisted them during daily life and whose husbands did not (p<0.001).

DISCUSSION

The present paper provides crucial insights into the role and importance of communication, education and guidance of pregnant women during perinatal care. From this point of view, nurses constitute a corner stone in the establishment of suitable communication between pregnant women and healthcare personnel.

A high proportion of patients seem to display adherence to their prenatal follow-up programs. Socioeconomic improvement as well as increased awareness on reproductive health is reflected on the attitude and behaviors of pregnant women. Achievement of diagnostic, preventive and therapeutic goals in addition to reduction of perinatal morbidity and mortality during pregnancy can be possible by integration of nurses as important elements of healthcare provision. This collaborative approach not only provides collection of data systematically and planning of further steps appropriately, but also ameliorates the cost-effectiveness of perinatal care of pregnant women.

Information in pregnancy can be gained from numerous sources, but what is learnt is affected by many factors. Historically, knowledge about childbirth and parenting was gained informally through extended family members. However, changes in family structure and societies have resulted in an increased reliance on more formal forms of education for childbirth and parenting (Merewood 2014). Ideally, parents should be knowledgeable about expected infant and child behaviors and their meaning (Sirvinskienë 2016).

Svensson et al. compared two antenatal education programs, one focusing more on the baby and parenting in a holistic way (Having a Baby Program), and the other providing a regular antenatal program (Svensson et al. 2009). One of the major differences between the two programs was the integration of parenting activities throughout the *Having a Baby Program*, with the inclusion of sessions with new parents who provided an overview of their early parenting experience. Results of the paper indicated that, compared to the regular antenatal class, *Having a Baby Program* significantly improved maternal self-efficacy and parenting knowledge. In an analysis of nine studies of the transition to motherhood, Nelson et al. revealed that women are "overwhelmed and largely unprepared to deal with maternal transition, despite preparatory efforts" (Nelson 2003). Maternal healthcare services in Turkey are mostly provided by the government-run referral system composed of health stations in rural areas, health posts in urban areas, health centres and hospitals (Erci 2003; Ustunsoz et al. 2011). In Turkey, virtually all deliveries took place at home 50 years ago, but today only 21.2 percent of deliveries take place at home, mostly in rural areas (Ustunsoz et al. 2011). Studies from Turkey has shown that various socioeconomic variables such as the woman's educational status, number of births, unwanted pregnancies, health insurance, income level and geographical region of residence influence seeking prenatal care (Celik and Hotchkiss 2000).

The results have shown that health practices during pregnancy were remarkably better for pregnant women whose spouses assisted them during daily life at home. These findings emphasize the importance of family support during perinatal care and therefore, education programs must include spouses as well as pregnant women in order to accomplish better results for attitudes, knowledge and behaviors of pregnant women in terms of health. Not economical status, but body-mass index and educational level were associated with higher scores of HPQ-II. Therefore, appropriate counseling on weight gain and provision and spread of educational facilities may notably promote pregnancy health. In contrary, age or numbers of previous pregnancies displayed no significant impact on HPQ-II scores.

Interestingly, even though economical status displays no significant impact on HPQ-II scores, being employed seems to improve HPQ-II scores. This may be explained by the social and environmental aspects of employment that allows better means of achievement of communication skills and access to knowledge.

Education is reported to have the most powerful influence on the knowledge score of maternal health. Knowledge not only transforms, but also empowers women and improves their self-esteem (Zhao et al. 2009). Educated women are more likely to be aware of their health status and seek health knowledge (Zhao et al. 2009).

In the literature, it has been stated that advisory services provided by nurses in addition to physicians may be more beneficial for perinatal outcomes (Bamanikar and Kee 2013; Anya et al. 2008). In parallel to the current findings, higher level of education was associated with better health knowledge in previous reports (Zhao et al. 2009; Regassa 2011; Chemir et al. 2014).

The main limitations of the present paper are the cross-sectional design and inability to standardize and control social and environmental factors that may interfere with the responses in the setting where questionnaires were administered. Hence, interpretation and extrapolation of the results must be made carefully. Further trials must be directed for a better understanding of the determinants of health-related attitudes and behaviors of pregnant. The researchers hope that this paper will pioneer and encourage efforts for an integrated and multidisciplinary follow-up of pregnant women.

CONCLUSION

Promotion of women's knowledge, attitude and behaviors on health can be accomplished via education and modification of behaviors. Implementation of this goal necessitates the establishment of an effective communication between pregnant and nurses involved in perinatal care. Therefore, a greater emphasis must be put on enrichment and effective use of resources, determination of policy popularization of education for pregnant women together with their families. Positive health practices in pregnant women are related positively to social support, and perceived health status.

RECOMMENDATIONS

Education, employment and support of spouse during daily life seem to improve HPQ-II scores substantially in pregnant women.

REFERENCES

Anya SE, Hydara A, Jaiteh LE 2008. Antenatal care in the Gambia: Missed opportunity for information, education and communication. *BMC Pregnancy Childbirth,* 8: 9.

Bamanikar S, Kee LK 2013. Knowledge, attitude and practice of oral and dental healthcare in pregnant women. *Oman Med J,* 28: 288-291.

Celik Y, Hotchkiss DR 2000. The socio-economic determinants of maternal health care utilization in Turkey. *Soc Sci Med,* 50: 1797-1806.

Chemir F, Alemseged F, Workneh D 2014. Satisfaction with focused antenatal care service and associated factors among pregnant women attending focused antenatal care at health centers in Jimma town, Jimma zone, South West Ethiopia: A facility based cross-sectional study triangulated with qualitative study. *BMC Res Notes,* 7: 164.

Cormick G, Kim NA, Rodgers A, Gibbons L, Buekens PM, Belizán JM, Althabe F 2012. Interest of pregnant women in the use of SMS (short message service) text messages for the improvement of perinatal and postnatal care. *Reprod Health,* 9: 9.

Er S 2006. *Validation of Turkish Version of Health Practice Questionnaire II in Pregnancy*. Master's Thesis. Obstetrics and Gynecology Nursing Program, Izmir, Turkey: Ege University Institute of Health Sciences.

Erci B 2003. Barriers to utilization of prenatal care services in Turkey. *J Nurs Scholarship*, 35: 269-273.

Lindgren K 2005. Testing the health practices in Pregnancy Questionnaire-II. *J Obstet Gynecol Neonatal Nurs,* 34: 465-472.

Masuku SK, Lan SJ 2014. Nutritional knowledge, attitude, and practices among pregnant and lactating women living with HIV in the Manzini region of Swaziland. *J Health Popul Nutr,* 32: 261-269.

Mbada CE, Adebayo OE, Adeyemi AB, Arije OO, Dada OO, Akinwande OA et al. 2014. Knowledge and attitude of Nigerian pregnant women towards antenatal exercise: A cross-sectional survey. *ISRN Obstet Gynecol*, 2014: 260539.

Merewood A 2014. Prenatal education: Timing it right. *J Hum Lact*, 30: 133.

Nelson AM 2003. Transition to motherhood. *J Obstet Gynecol Neonatal Nurs*, 32: 465-477.

Perumal N, Cole DC, Ouédraogo HZ, Sindi K, Loechl C, Low J, Levin C, Kiria C, Kurji J, Oyunga M 2013. Health and nutrition knowledge, attitudes and practices of pregnant women attending and not-attending ANC clinics in Western Kenya: A cross-sectional analysis. *BMC Pregnancy Childbirth,* 13: 146.

Regassa N 2011. Antenatal and postnatal care service utilization in southern Ethiopia: A population-based study. *Afr Health Sci,* 11: 390-397.

Sirvinskienë G, Zemaitienë N, Jusienë R, Smigelskas K, Veryga A, Markûnienë E 2016. Smoking during pregnancy in association with maternal emotional well-being. *Medicina (Kaunas)*, 52: 132-138.

Svensson J, Barclay L, Cooke M 2009. Randomised-controlled trial of two antenatal education programs. *Midwifery,* 25: 114-125.

Ustunsoz A, Senel N, Pollock CA 2011. Comparison of prenatal education delivered by nurses in Ankara (Turkey) and New Orleans (USA). *J Clin Nurs,* 20: 1133-1140.

Zhao Q, Kulane A, Gao Y, Xu B 2009. Knowledge and attitude on maternal health care among rural-to-urban migrant women in Shanghai, China. *BMC Women's Health*, 9: 5.

Paper received for publication on January 2016
Paper accepted for publication on December 2016

Appendix A:

PERSONAL IDENTITY QUESTIONNAIRE FORM

1. How old are you? ……..
   a) 18-22 b) 23-27 c) 28-32 d) 33-37
   e) older than 38 years
2. What is your educational background?
   a) Primary school b)Secondary school
   c) Lycée or its equivalent
   d) University/high school e) Other
3. What is your marital status?
   a) Married b) Single c) Divorced
   d) Other……..
4. How long are you married?
5. What is your profession?
   a) Housewife b) Civil servant c) Worker
   d) Self-employment e) Other……
6. What is the educational background of your spouse?
   a) Primary school b) Secondary school
   c) Lycée or its equivalent
   d) University/high school
   e) Other
7. What is your spouse's profession?
   a) Unemployed b) Civil servant c) Worker
   d) Self-employment e) Other……
8. Up to now, where have you lived longest?
   a) Metropolis b) City c) County d) Village
9. Have you a social security coverage?
   a) Yes b) No
10. If your response is "Yes", then what type is your social security coverage?
   a) Retirement fund b) SII c) SSO
   d) Private health insurance e) Other.....
11. What is your family type?
   a) Nuclear family b) Extended family
   c) Broken family e) Other
12. How is your family income?
   a) Our income is lower than our expenditures
   b) Our income, and expernditure are balanced
   c) Our income is higher than our expenditures
13. How many times have you become pregnant before?
   a) Once b) Twice c) Thrice d) Four times
   e) More than four times
14. How many living children have you?
   a) One b) Two c) Three d) Four
   e) More than four
15. How many weeks pregnant are you?
16. Have you ever planned to become pregnant?
   a) I've become pregnant against my wish.
   b) I wanted to become pregnant.
   c) I 've become pregnant against my wish, however now 1 want to have this baby
17. How tall are you? ..……What was your weight before getting pregnant? ……..
18. How many times have you ever visited any health institute for control during your pregnancy?
   a) Once b) Twice c) 3 times d) 4 times
   e) More than four time
19. How many times midwife/nurse from primary health care center visited you at home?
   a) Once b) Twice c) 3 times d) 4 times
   e) More than 4 times
20. Does yoir spouse help you with housework?
   a) He is very helpful
   b) He is reasonably helpful
   c) He gives a little help
   d) He is not helpful at all
21. Have you ever contracted a sexually transmitted disease?
   a) Yes b) No
22. If your answer is "Yes.", what did you do about it?

Appendix B:

HEALTH PRACTICES QUESTIONNAIRE FOR PREGNANTS

1. From the beginning of my pregnancy, I think 1 am leading a healthy life style
a) Never b) Rarely c) Occasionally
d) Frequently e) Always

2. From the beginning of my pregnancy, I am sleeping at least 7-8 hours a day
a) Never b) Rarely c) Occasionally
d) Frequently e) Always

3. From the beginning of my pregnancy, I am exercising at least 20 minutes a day, minimum 3 days a week.
a) Never b) Rarely c) Occasionally
d) Frequently e) Always

4. From the beginning of my pregnancy, I am using safety belt, while I am driving (or travelling on) a car, truck, luggage van, and pickup
a) Never b) Rarely c) Occasionally
d) Frequently e) Always

5. From the beginning of my pregnancy, I am drinking more than 2 glasses of caffeinated beverages (coffee, tea, coca cola, soda) a day.
a) Never b) Rarely c) Occasionally
d) Frequently e) Always

6. From the beginning of my pregnancy, I am using amphetamine, LSD, heroine or volatile substances..
a) Never b) Rarely c) Occasionally
d) Frequently e) Always

7. From the beginning of my pregnancy, my spouse and /or I engaged in a sexual intercourse with other people.
a) Never b) Rarely c) Occasionally
d) Frequently e) Always

8. From the beginning of my pregnancy, I am taking measures against contracting sexually transmitted diseases (ie. my spouse is using condom or I am refraining from sexual intercourse)
a) Never b) Rarely c) Occasionally
d) Frequently e) Always

9. I communicate my concerns aboiut my health, and my baby's to my physician or midwife.
a) Never b) Rarely c) Occasionally
d) Frequently e) Always

10. If I have questions about my pregnancy or anything I don't understand, I ask my physician or midwife
a) Never b) Rarely c) Occasionally
d) Frequently e) Always

11. From the beginning of my pregnancy, I am using herbal medicine apart from the drugs advised by my my physician or midwife
a) Never b) Rarely c) Occasionally
d) Frequently e) Always

12. From the beginning of my pregnancy, while I am buying foods, and beverages healthy for myself, and my baby, I read package labels (ie I especially avoid foods with higher salt, and fat content, artificial sweeteners, and buy foods rich in vitamins).
a) Never b) Rarely c) Occasionally
d) Frequently e) Always

13. From the beginning of my pregnancy, I am taking showers instead of tking a bath in a tube.
a) Never b) Rarely c) Occasionally
d) Frequently e) Always

14. From the beginning of my pregnancy, I am refraining from bathing with water warmer than 37,7 ^{o}C, and taking sitz baths
a) Never b) Rarely c) Occasionally
d) Frequently e) Always

15. From the beginning of my pregnancy, I am refraining from getting in contact with or restrict my exposure time to poisonous chemicals or other similar substances (ie; second-hand smoking, insecticides, pesticides, drinking water with high lead content).
a) Never b) Rarely c) Occasionally
d) Frequently e) Always

16. From the beginning of my pregnancy, before I use any drug or supplements, I inform my physician or midwife
a) Never b) Rarely c) Occasionally
d) Frequently e) Always

17. From the beginning of my pregnancy, I am taking multivitamins and continuing to consume vitamins if recommended by my physician or midwife.
a) Never b) Once or twice a week
c) 3-4 times a week d) 5-6 times a week
e) Daily or not recommended

18. From the beginning of my pregnancy, I am consuming, milk, milk products, foods, supplements and/or drugs rich in calcium (1200 mg/day).
a) Never b) Once or twice a week
c) 3-4 times a week d) 5-6 times a week
e) Günlük

19. From the beginning of my pregnancy, I am consuming 5 servings of fruits and /or vegetables.
a) Never b) Once or twice a week
c) 3-4 times a week d) 5-6 times a week e) Daily

20. From the beginning of my pregnancy, I am consuming sufficient amounts of fibrous, and pulpy foods (vegetables, dried food) with my diet.
a) Never b) Once or twice a week
c) 3-4 times a week d) 5-6 times a week e) Daily

21. From the beginning of my pregnancy, I am smoking
a) I 've never smoked b) I quitted smoking since I had learnt that I had been pregnant
c) Less than 10 cigarettes a day
d) 11-20 cigarettes a day
e) More than one package a day

22. From the beginning of my pregnancy, I am drinking alcoholic beverages (wine, beer or liquor).
a) I've never drunk alcoholic beverages during my pregnancy b) Before I learnt that I had been pregnant
c) Less than 3 times a month
d) once a week e) Less than once a week

23. From the beginning of my pregnancy, I am usually drinking alcoholic beverages in equal amounts to one bottle of beer, one glass of wine or liquor at one sitting
a) I 've never drunk during my pregnancy
b) 1 unit (drink) c) 2 units (drink)
d) 3 units (drink) e) More than 3 units (drink)

24. I 've begun to negotiate with my physician or midwife for my prenatal care
a) To make plans for becoming pregnant before conception b) The first 3 months of my pregnancy

Appendix B: Contd...

c) Before the 5. month of my pregnancy d) Before the 7. month of my pregnancy e) Before the 9. month of my pregnancy

25. From the beginning of my pregnancy, I missed, forgot or didn't attend to my appointment with my physician or midwife

a) I've never missed any one of my appointments b) I missed only one appointment c) I missed 2-3 appointments

d) I missed 4-5 appointments e) I missed more than five appointments

26. From the beginning of my pregnancy, I am regularly paying attention to my dental care (professional dental cleaning or dental caare at every 6 months)

a) I had my dental care regularly performed

b) Though time for my dental care arrived, I have not visited my dentist

c) I don't know if I should have my dental care done at this time

d) I visited a dentist who performed my dental care partially; however, my dental care was not carried out fully as required

e) I visited a dentist, and had my dental care completely or since the beginning of my pregnancy my appointment date has not arrived yet

27. From the beginning of my pregnancy, I am reading books, booklets, watching videos or surfing in the internet to get more information about pregnancy, and birth.

a) Never b) Once or less than once a month

c) 2-3 times a month d) 4 times a month (once a week) e) More than 4 times a month

28. From the beginning of my pregnancy, I am talking with my friends or family members to get more information about pregnancy, and birth.

a) Never b) Once or less than once a month c) 2-3 times a month d) 4 times a month (once a week)

e) More than 4 times a month

29. From the beginning of my pregnancy, I am taking time to ease myself by engaging in some activities (walking, getting a massage, listening to music, engaging in handicraft).

a) Never b) Once or less than once a week

c) Once or twice a week. d) 3-5 times a week

e) More than 5 times a week

30. From the beginning of my pregnancy, 1 gained weight in appropriate amounts for the week of my pregnancy as recommended by my physician or my midwife.

a) I lost weight b) I gained weight very little or much more than required

c) I neither gained or lost weight d) I have no idea

e) I gained weight in required amounts.

31. From the beginning of my pregnancy, every day I am drinking water, fruit juice, vegetable juice or other non-caffeinated drinks.

a) Less than 3 glasses (3 x 220 ml) a day ( )

b) 3-4 glasses a day (3-4 x 220 ml)

c) 6 glasses a day d) 7-8 glasses a day e) More than 8 glasses a day

32. From the beginning of my pregnancy, I minimized the risk of contracting toxoplasmosis by wearing gloves while working in the garden, and refraining from eating raw or less cooked meat, and contacting with cat litters,

a) Always b) 5 days a weekc) 3 days a week

d) Sometimes e) Never

33. I attended, and planned to attend to pregnancy preparation courses.

a) Certainly yes b) No, I attended previously

c) I am not sure d) Probably not

e) Certainly not