

PRENATAL HEALTH EDUCATION NEEDS OF MEDICALLY INDIGENT  
AND UNDER-INSURED PREGNANT WOMEN

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ABSTRACT

Education is an important and integral part of prenatal health and plays an important part in reducing prenatal health disparities among vulnerable populations. In an effort to improve health outcomes for mothers and their infants, nurses need to design relevant prenatal health education programs when caring for medically-indigent and under-insured pregnant women.

The purpose of this pilot study was to determine the prenatal educational needs of medically-indigent and under-insured pregnant women to design appropriate health promotion programs. Women were asked to respond to questions related to their diet, exercise, use of medications, number of pregnancies, their reproductive health, and use of tobacco and alcohol. The information gained from this pilot study provides the framework necessary to develop relevant educational programs and to increase awareness of healthy lifestyle behaviors and thereby change unhealthy prenatal behaviors for this population of vulnerable women.

The design of the study was a descriptive, cross-sectional survey. All pregnant women receiving prenatal care at the JayDoc Free Health Clinic were invited to complete a Prenatal Health Survey designed by the March of Dimes. The women were given the option of completing the survey in English or Spanish. Descriptive statistics were used to summarize the study results. A total of 15 pregnant women ranging in age from 17 years to 34 years (mean age 26 years) completed the survey. The majority of the women (n=12) completed the questionnaire in Spanish. The most significant results of the study were: (1) 87% of the women (n =13) reported they did not receive routine dental care and (2) 40% of the women (n = 6) reported they did not regularly exercise.

## Prenatal Health Education Needs

The results of this study have implications for nurses caring for medically-indigent and under-insured pregnant women. When caring for this population of vulnerable women, it is important to assess their need of dental care. If it is determined the women are in need of such care, nurses need to be able to provide appropriate education about the importance of dental health and dental care resources.

## INTRODUCTION

Community health center educational programs and services are designed to protect, promote, and preserve the health of all populations (Corry & Moos, 2004). Community health centers and clinics have long served as places where members of vulnerable populations receive health care and health education (Shi & Stevens, 2007). A particularly vulnerable population that frequently receives care in the community is medically-indigent and under-insured pregnant women. Prenatal health education should be an integral part of prenatal care as a means to improve the perinatal outcomes for women and their infants. Additionally, prenatal health education is an important strategy for reducing prenatal health disparities for women who are members of a vulnerable population (Vonderheid, Montgomery & Norr, 2007). To improve the efficacy of prenatal education and care, it is important to gain the perspective of the pregnant women in order to meet their prenatal educational needs (Nichols & Harris, 2007).

Education is a key aspect of nursing care provided during the prenatal period. Appropriate education may result in positive outcomes for the mother and her infant. The educational needs of mothers vary among different populations receiving care. It is imperative that nurses provide the most relevant, up-to-date, and culturally appropriate and sensitive education to the population being served. One particular population that seeks prenatal care is the medically-indigent and under-insured. The information provided by patients about their prenatal health education needs may serve as a framework to design a series of educational messages aimed to increase awareness of healthy lifestyle behaviors and decrease unhealthy behaviors for medically-indigent and under-insured pregnant women.

Compared with members of the majority population, pregnant women living in poverty are faced with many social inequities that place them at risk for adverse health outcomes. Often,

women who are members of minority groups and impoverished experience barriers that prevent them from obtaining appropriate prenatal care and education. (Enriquez, Farnan, Simpson, Grantello & Miles, 2007). Additionally, women of lower socioeconomic status traditionally have been considered at high risk for adverse pregnancy outcomes (Munro, 1993) and giving birth to low-birth-weight infants (Maloni, Ching-Yu & Cary, 1996). Thus, improving pregnancy outcomes for medically-indigent and medically under insured women remains a major goal of health providers and policy makers (Gardner, Oliver, McNeal & Goldenberg, 1996).

### *Purpose of the Study*

The purpose of this pilot study was to determine the prenatal educational needs of medically indigent and under-insured pregnant women receiving prenatal care at a community health facility. Knowledge of the lifestyle behaviors of medically indigent and under insured pregnant women will provide the framework for developing the most appropriate educational offerings to this cohort of women thereby improving their maternal outcomes (York, Williams & Munro, 1993). We gained information about the health behaviors of a cohort of medically indigent and underserved pregnant women that will allow us to develop appropriate educational programs to meet their prenatal education needs.

A paucity of information exists in the scientific literature that addresses the educational needs of vulnerable groups of pregnant women regarding healthy lifestyles behaviors. The educational needs of medically-indigent and under-insured pregnant women have only minimally been addressed and remain a major concern. In order to achieve healthy outcomes for both the mothers and their infants, educational programs need to be designed and offered that most appropriately meet their needs. As with any area of patient care, it is the responsibility of the nurse to provide relevant education about the health needs of their patients. Therefore, the primary focus

of this study was to determine the educational needs of this group of women in order to design the most relevant and culturally appropriate programs to achieve healthy outcomes for the mothers and their infants. Information from this study will add to the body of scientific and will provide nurses with the most up-to-date information about the health education needs of this vulnerable population.

Inclusion criteria for participating in the study were (1) Able to converse in English or Spanish, (2) Able to read in English or Spanish, (3) Willing to give informed consent, and (4) First prenatal visit to JayDoc Free Clinic. At no time before, during, or after the study process were the women asked about their legal or immigration status. Also, all study instruments were completed anonymously. The researchers were given a waiver of written consent by the IRB of their parent institution, therefore no names or identifying information was collected. Completion of the survey served as consent to participate in the study.

### *Research Question*

This pilot study was designed to investigate the health behaviors of pregnant women receiving care at a community health center. As such, the research question that the investigators sought to answer was “What are the prenatal health education needs of medically-indigent and under-insured pregnant women?”

### *Literature Review*

Community center health promotion educational programs and services are designed to protect, promote, and preserve the health of the population (Corrarino & Moos, 2004). Community health centers and clinics have long served as places where members of vulnerable populations receive health care and health education (Shi & Stevens, 2007). Prenatal health education should

be an integral part of prenatal care as a means to improve the perinatal outcomes for these women and their infants (Vonderheid, Norr & Handler, 2007). Additionally, prenatal health education is an important strategy for reducing prenatal health disparities for women who are members of a vulnerable population (Vonderheid, Montgomery & Norr, 2003). To achieve healthy outcomes, pregnant women must be offered relevant health education and health promotion information throughout their pregnancy (Risica & Phipps, 2006 the efficacy of According to Fowles (2007), presenting educational offerings at local community health clinics is a unique approach to provide health education and promotion when caring for members of vulnerable populations. Prenatal care should focus on the long-term well being of women and their families and include comprehensive risk assessment, health promotion to enhance healthful behaviors, and interventions to prevent medical and psychosocial risk (Vonderheid, Norr & Handler, 2007). The positive influence of prenatal health promotion content was strongest for women at comparatively higher risk of adverse outcomes, such as adolescent, primiparas, and women having lower income status (Vonderheid, Norr & Handler, 2007). A study with ethnic low-income women receiving prenatal care found that receiving prenatal health promotion advice was associated with higher quality interpersonal care and satisfaction, an important outcome and indicator of the quality of care (Vonderheid, Norr & Handler, 2007).

Minority women will increasingly constitute a significant component of the target population in maternity care, and a large proportion of these women will be of low income, or indigent, and subject to the poor outcomes of pregnancy that poverty usually engenders (Esperat, Feng, Zhang & Owen, 2007). Patient education is an essential component of prenatal care (Risica & Phipps, 2006). Prenatal care services have been shown to affect birth outcomes when they improve continuity, increase the delivery of other services, and modify high-risk maternal behaviors (Tiedje, 2004). Variables identified that are associated with positive pregnancy experiences include

demographic variables, marital satisfaction, maternal-fetal relationship, prenatal childbirth education, social support, self-esteem, and self-concept (Nichols, Roux & Harris, 2007). A way to work toward eliminating health disparities is to develop health-promotion interventions tailored to underserved populations (Timmerman, 2007). For underserved women, personal experiences such as poverty, racism, immigration, inadequate housing, family turmoil, violence, and lack of access to healthcare may contribute to stress, low self-esteem, and depression (Timmerman, 2007). Underserved women who are chronically stressed and who may suffer from low self-esteem or depression may feel powerless to change their behavior (Timmerman, 2007).

## METHODS

### *Design*

The design of this pilot study is a descriptive, cross-sectional survey to identify lifestyle health behaviors of pregnant women receiving prenatal care. The data obtained from the survey provides information regarding the prevalence, distribution, and information about people's actions, knowledge, intentions, opinions, and attitudes. The survey allows for the efficient collection of a large amount of data from a number of people relatively quickly and provides for anonymity of responses.

The March of Dimes, the U.S. Centers for Disease Control and Prevention (CDC), and 34 partner organizations developed a screening questionnaire aimed at identifying the lifestyle behaviors of pregnant women. This instrument is widely used by health care providers caring for pregnant women. Determining lifestyle beliefs of the women will provide the information necessary to develop relevant educational programs to meet the prenatal health education needs of medically indigent and under-insured pregnant women receiving prenatal care at JayDoc Free Clinic.



### *Data Collection*

The women's decision to participate in the study was strictly voluntary and they were told that if they chose not to participate in the study, their decision would not impact the prenatal care that they received at a Midwestern free health clinic. The completion of the survey instrument lasted about 15 minutes. The women were given the option of completing the study instruments in either Spanish or English

Women presenting at the clinic for their first prenatal visit were approached by a member of the research team and given a letter explaining the study in detail (Appendix A). The women who agreed to participate in the study were given a private room in which to complete the study instrument. Using the Prenatal Health Screening Questionnaire, we surveyed pregnant women receiving prenatal care at a Midwestern free clinic. In addition to the questions asked on the Prenatal Health Screening Questionnaire, the researchers collected data about the age, race/ethnicity, number of pregnancies, and number of children of each of the participants. In addition, each woman received an envelope in which to return their completed survey to the researchers. At no time before, during, or after the completion of the study instrument were they asked for personal identification or about their immigration status.

### *Analysis*

Descriptive statistics were used to summarize the survey results that allowed us to organize, interpret, and communicate the numerical information. This method of data analysis also allowed us to synthesize and describe the data in the most relevant terms. Based on the responses of the individual survey items on the questionnaire, we were able to tease out those lifestyle behaviors and practices that warranted health education and health promotion programs.

## . FINDINGS AND DISCUSSION

A total of 15 pregnant women ranging in age from 17 years to 34 years, with a mean age 26 years, completed the survey. Twelve of the women completed the questionnaire in Spanish and the remaining three completed in English. Eight of the participants self-identified as being Hispanic/Latina, two of the women self-identified as Caucasian and five did not respond to the question. Overall, the women indicated they were pleased with their health status and health habits. Thirteen of the women stated they ate three meals each day, did not follow any particular diet or ate under-cooked meat. Of the sample, nine of the women (60%) reported taking folic acid daily and only three of the women were exposed to second hand smoke. The majority of the women reported being in good reproductive health. None of the women had a history of infertility, problems with their menstrual cycle and only 3 women stated they had received treatment for a sexually transmitted disease. Of significance was the information received from the women regarding their dental and oral care histories. Thirteen of the women reported they did not receive routine dental care and six reported they did not regularly exercise. (See Table 1 and Appendix C).

### *Limitations of the Study Implications for Implications for Nursing*

While the sample size for this pilot study was small, the researchers were able to catch a glimpse of the prenatal educational needs of medically indigent and medically under insured women receiving prenatal care at a community health center. When caring for this population of vulnerable women, it is important to assess their need of dental care. Oral health education should be a component of holistic prenatal screening and care. When it is determined the women are in need of dental care, nurses need to be able to provide appropriate education about the importance of dental health and equipped to provide the necessary dental resources.

Recommendations for further research include identifying the barriers experienced by this group of women to receiving routine oral/dental care. Also it would be beneficial to identify any cultural beliefs or practices that impede this group of women from seeking routine oral/dental care. Another study could identify the beliefs about the importance of routine exercise.

### CONCLUSION

Improving pregnancy outcomes for minorities remains a major goal of health providers and policy makers and nurses (Gardner, Cliver, McNeal & Goldenberg, 1996). This study was undertaken to identify the prenatal health education needs of a cohort of medically indigent and underserved women receiving prenatal care at a community health center. The results of this study will be used to develop culturally appropriate and sensitive educational offerings regarding the importance of regular dental and oral health care, especially for women during their prenatal and subsequent lactation times. In addition, due to the small sample size, this study warrants replication at additional community health centers.

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APPENDIX A

Dear Participant:

As a pregnant woman, you are invited to participate in a research study about health care programs for pregnant women. Faculty and students at the Kansas University School of Nursing want to learn how best to care for pregnant women. We would like to ask you some questions about your current health and lifestyle habits. By gaining information about your current health and lifestyle habits we will be able to develop programs to meet your health educational needs.

We are asking you to complete an anonymous survey: we will not ask you your name. It will take approximately ten minutes to complete. We would like you to complete the attached survey and then place it in the designated box. Even if you should decide not to answer our questions, you will still receive care at the Family Health Services clinic.

If you have any questions, you may contact me at [kbrewer@kumc.edu](mailto:kbrewer@kumc.edu) or Kaitlyn Dresser at [kdresser@kumc.edu](mailto:kdresser@kumc.edu) Thank you so much for your time. Also, thank you for considering participation in our study.

Sincerely,

Dr. M. Kathleen Brewer

Associate Professor

Kaitlyn Dresser, SN

APPENDIX B

**PRENATAL QUESTIONNAIRE**

Age: \_\_\_\_\_

Race/Ethnicity: \_\_\_\_\_

Prenatal Health Education Needs

Please circle the answer that indicates your response to the question.

1. Do you eat three meals a day?	Yes	No
2. Do you follow a special diet (vegetarian, diabetic, other)?	Yes	No
3. Do you eat raw or undercooked food (meat, other)?	Yes	No
4. Do you take folic acid?	Yes	No
5. Do you have current/past problems with eating disorders?	Yes	No
6. Are you exposed to second-hand smoke?	Yes	No
7. Do you see a dentist regularly?	Yes	No
8. Do you use saunas or hot tubs?	Yes	No
9. Are you using birth control pills?	Yes	No
10. Do you get injectable contraceptive or shots for birth control?	Yes	No
11. Do you have any problems with your menstrual cycle?	Yes	No
12. Have you been treated for infertility?	Yes	No
13. Have you had surgery on your uterus, cervix, ovaries or tubes?	Yes	No
14. Did your mother take the hormone DES during pregnancy?	Yes	No
15. Have you ever had HPV, genital warts or chlamydia?	Yes	No

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Please answer the following questions.

1. What do you consider a healthy weight for you?
2. Which of the following do you drink coffee, tea, cola, milk, water, soda/pop, other?
3. Do you take prenatal vitamins?
4. Do you use dietary supplements (i.e. black cohosh, pennyroyal, other)?
5. Do you exercise? What type of exercise do you do? How frequently do you exercise?
6. Do you smoke cigarettes or use other tobacco products? How many cigarettes/packs a day?
7. Are you employed outside of the home? If yes, what type of work do you do?
8. Do you work or live near possible hazards (chemicals, x-ray or other radiation, lead)? If yes, please list.
9. Are you taking prescription medications? If yes, please list.
10. Are you taking non-prescribed drugs? If yes, please list.
11. How many times have you been pregnant?

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12. How many children do you have?

TABLE 1

Question	Yes	No	Not Answered
1. Do you eat three meals a day?	87%	13%	0
2. Do you follow a special diet (vegetarian, diabetic, other)?	0	93%	7%
3. Do you eat raw or undercooked food (meat, other)?	13%	87%	0
4. Do you take folic acid?	60%	40%	0
5. Do you have current/past problems with eating disorders?	7%	93%	0
6. Are you exposed to second-hand smoke?	20%	80%	0
7. Do you see a dentist regularly?	13%	87%	0
8. Do you use saunas or hot tubs?	0	100%	0
9. Are you using birth control pills?	7%	93%	0
10. Do you get injectable contraceptive or shots for birth control?	0	93%	7%
11. Do you have any problems with you menstrual cycle?	0	100%	0
12. Have you been treated for infertility?	0	100%	0
13. Have you had surgery on your uterus, cervix, ovaries or tubes?	7%	93%	0
14. Did you mother take the hormone DES during pregnancy?	7%	87%	7%
15. Have you ever had HPV, genital warts or chlamydia?	13%	80%	7%

APPENDIX C

1. What do you consider a healthy weight for you?  
Didn't answer: 67%  
130ish: 7%  
140: 13%  
145: 7%  
165: 7%
2. Which of the following do you drink: coffee, tea, cola, milk, water, soda/pop, other?  
Milk: 87%  
Water: 27%  
Tea: 27%  
Coffee: 14%  
Cola/Soda/Pop: 47%  
Juice: 20%
3. Do you take prenatal vitamins?  
Yes: 80%  
No: 20%
4. Do you use dietary supplements (i.e. black cohosh, pennyroyal, other)?  
Yes: 13%  
No: 87%
5. Do you exercise? What type of exercise do you do? How frequently do you exercise?  
Yes: 47%  
No: 40%  
Didn't answer: 13%  
Walking: 47%
6. Do you smoke cigarettes or use other tobacco products? How many cigarettes/packs a day?  
Yes: 0  
No: 93%  
Didn't answer: 7%
7. Are you employed outside of the home? If yes, what type of work do you do?  
Yes: 20%  
No: 73%  
Didn't answer: 7%
8. Do you work or live near possible hazards (chemicals, x-ray or other radiation, lead)?  
Yes: 0

No: 93%  
Didn't answer: 7%

9. Are you taking prescription medications? If yes, please list.

Yes: 7% (Amoxicillin and Phenergran)  
No: 87%  
Didn't answer: 7%

10. Are you taking non-prescribed drugs? If yes, please list.

Yes: 13% (Musinex and Tylenol)  
No: 80%  
Didn't answer: 7%

11. How many times have you been pregnant?

Once: 27%  
Twice: 27%  
Thrice: 20%  
Four times: 20%  
Didn't answer: 7%

12. How many children do you have?

Zero: 27%  
One: 33%  
Two: 13%  
Three: 20%  
Didn't answer: 7%