

HEALTH PROMOTIONAL EARLY PREGNANCY CLASSES

An Honors Thesis (ID 499)

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Health care in the United States has recently begun a slow shift toward the emphasis of primary rather than secondary prevention. The motive for this shift has been to a great extent the desire to decrease the national expenditure on health care. A desire to improve the quality of life for many portions of our society has also been voiced. These new trends are evident in the Objectives for the Nation, a governmental publication for the fifty states and all health practitioners. It is designed to offer guidelines in the care of the general population. A few of the many objectives follow.

To continue to improve infant health and by 1990 to reduce infant mortality by at least 35%, to fewer than 9 deaths per 1000 live births.

By 1990, the maternal mortality rate should not exceed 5/100,000 live births for any county or ethnic group.

By 1990, 85% of women of childbearing years should be able to choose foods wisely and understand the hazards of smoking, alcohol, pharmaceutical products, and other drugs during pregnancy.

By 1990, virtually all women and infants should be served at levels appropriate to their need by a regional system of primary, secondary, and tertiary care for prenatal, maternal and perinatal health services.

Perhaps the most basic primary prevention approach is to ensure the healthy birth of the next generation. The U.S. still has a surprising high prematurity and neonatal death rate as compared to other developed nations despite the many technological advances in the field of neonatal care.

Seven of every hundred births today is premature (Jensen 1981). This problem has not been solved via traditional secondary care. Prenatal care of the fetus could be instrumental in preventing many of the problems presently faced in our neonatal intensive care units before they occur.

The maternal factors that can contribute to a high risk pregnancy are quite numerous. A few are listed below.

- Age: under 17, over 35
- Underweight before pregnancy
- Poor weight gain during pregnancy
- Coexisting disease or infection
- A Alcohol consumption
- Tobacco use
- Inappropriate exercise
- Highly stressful lifestyle
- Previous problem pregnancy
- Previous noninduced abortions
- Delayed/Absent prenatal care (Jensen 1981)

Many of these factors lend themselves to modification through effective nursing intervention (Tegtmeier 1984). Nutrition, alcohol and tobacco use, exercise, and stress reduction can all be included in a class designed for the pregnant woman. While many of these factors require a great change in the behavior and lifestyle of these women, a task that is not easily accomplished, it is only through educating this population to the risks involved that these women can make decisions based on fact and a knowledge of the situation.

Early pregnancy classes conducted to ensure the healthy births might also have a second goal: an improved quality of life for the pregnant woman. For many women, pregnancy is one of the most highly valued life experiences. Yet, many

enter these nine months without the information necessary to make it a satisfying period. An early pregnancy class instructor can act as a source of information and support for these women, helping them to adjust and enjoy pregnancy (Tegtmeier 1984).

As previously stated, a slow change in emphasis to primary health care has begun to occur in the United States. With regard to the pregnant woman, this has resulted in increased funding for the formation of prenatal care facilities for the medically indigent population in many areas of our country. One such program was set up in North Carolina in 1977. After a year the program was evaluated with surprising results. There was no significant decrease in the incidence of low birthweight and its corresponding problems. Those who conducted the research offered several reasons for these disturbing findings. The clinics set up were sorely understaffed and thus were perhaps less able to meet the needs of their clients. In addition, it was noted that only traditional antenatal care was offered to the clients. While the problems of smoking, alcohol use, hypertension, nutritional deficiencies, and maternal diabetes were targeted, these problems were not met aggressively with early pregnancy counseling, education, or behavior modification (Peoples 1984).

This study indicated that, in order to improve the physical status of the pregnant woman, increase the chances of a uncomplicated birth, and development of a healthy infant, more than traditional prenatal care is needed.

The concept of early pregnancy classes is a new one. For this reason, this type of instruction is still in its infancy in regards to development and evaluation. One program was started a few years ago at Thomas Jefferson Hospital in Philadelphia. It was offered for any woman in the first trimester and her support person. As of 1983, ten percent of all those registering for the later childbirth classes registered for this early pregnancy class. This percentage has been steadily growing. Ninety-five of all participants have been clients of private physicians. The low percentage (5%) of clients coming from the public clinic has been presumed to be due to this population's failure to seek early prenatal care.

While no formal research has yet been conducted to review the effects of this class, informal evaluations completed by participants have been excellent and encouraging. This hospital plans to continue the classes, further adapting them to the changing needs of their clients (Bretschneider 1983).

SURVEY RESULTS

In order to assess the needs of the target population of an early pregnancy class, a questionnaire was administered to women who were in the first twenty weeks of gestation. When formulating this questionnaire, the investigator enlisted the assistance of five experts. These experts were masters-prepared maternal-child nurses. They were requested to list five areas that should be included in an early pregnancy class. From their twenty-five answers (Appendix A) and a review of related literature, a questionnaire was made consisting of fifteen items covering suggested topics (Appendix B). After the questionnaire was completed, it was then assessed by three of the experts for clarity and content validity. No changes were suggested by these experts.

Twenty-five questionnaires were taken to two public clinics serving the medically indigent and low income clients and to two private physician's offices. The receptionists were asked to hand out the forms to any qualifying clients over a period of two weeks. This method of distribution was used to speed the collection process. It did however make contact with the clients and therefore further assessment of content validity impossible. At the end of this time, eleven completed questionnaires were returned. Four surveys came from one clinic, two from another, and five from one physician's office. The second office failed to hand out any questionnaires.

Five of the women completing the questionnaire were primiparas. Of the remaining multigravidas, only one woman had a child at home (Appendix C). One of the women stated she had had two spontaneous abortions. Whether the other four multigravidas carried their previous pregnancies to term is unknown. For this reason, it is impossible to assess the needs of the primigravida versus the multigravida with this study.

As no significant difference was noted in the responses made by clinic and private physicians' clients, they were all grouped together for the purpose of evaluation (Appendix D and E). It would have been of value to question the sample as to education, marital status, income level, and previous type and length of prenatal care to note any variance of response in relation to these factors.

Looking at the overall responses to the questionnaire, and allowing for the negatively worded questions, fourteen percent of the answers were "5", indicating a strong desire to learn more on the topic. Forty-three percent of the responses were "4" indicating a relatively strong desire, and twenty percent were "3" indicating a neutral or undecided position on the given topic. This comprises seventy-seven percent of the total responses to the questionnaire. The modal response to each question was "4" except for the questions concerning old wife's tales, the purpose of prenatal MD visits, and the differentiatiation between normal and significant symptoms.

The item concerning old wife's tales was worded "I find it easy to tell the difference between valid information

concerning pregnancy and old wife's tales." The way this is stated, it asks the woman to be able to recall what she knows about pregnancy and decide whether that knowledge is valid or not. This is probably a less than ideal question as it asks the client to evaluate the source of her knowledge. The poor wording of this item may explain why the sample of women failed to indicate a need for more information concerning this topic. This question should be modified in any further research done.

In response to the question concerning medical prenatal care only one woman indicated a need for a further explanation of the visits. The rest of the sample revealed a strong understanding of the purpose of the prenatal MD appointment. This topic would only need to be included, therefore, if the members of an individual early pregnancy class indicated a need for further explanation.

The responses to the question concerning significant symptoms during pregnancy were spread throughout the scaled responses. Four of the clients indicated a need for more knowledge, four were unsure (the modal response), and three indicated a strong understanding of the topic. One of the women who showed a desire for more information had had two previous miscarriages and stated that she was quite nervous about her present pregnancy. While the responses to this question were quite varied, the majority of women (6/11) were either unsure or indicated a desire for more information in the area. These results seem to indicate that significant symptoms is a valid topic for early pregnancy classes.

Question thirteen queries the need for advice in helping siblings adjust to pregnancy and childbirth. Because the survey sample rendered only one woman with children at home, no generalizations of the level of need in this area can be made. It is, however, an area of potential need that should be evaluated with further research and whenever early pregnancy classes are taught.

Ten out eleven respondents indicated a desire to know more about the adjustments required in daily activities during pregnancy. The only woman who indicated no need in this area had already brought a pregnancy to term. This study indicates then that this is an area of concern for woman during pregnancy and should be given priority in any class. Further investigation is warranted to discover if this is more of a priority for primigravidas than multigravidas.

Open comments that were made in response to question fifteen are listed in Appendix E. All of these emphasize areas covered in the questionnaire except one. This remark stated a need to know more about the effects of abortion on subsequent pregnancies. This topic could easily be covered in a lesson over valid versus invalid information about pregnancy.

Upon completion of this study it was noted that a question concerning drug and alcohol use had been omitted. This is a topic of vital importance. Any further needs assessment of this population should most certainly include such a question.

The overall results of this questionnaire seem to validate the assumption that women are in need of information concerning many topics relevant to pregnancy. A class taught in the first trimester could meet this need; a need that apparently has not been met through more traditional prenatal care. It is only through the implementation and evaluation of such classes that the nursing profession can adapt its care of the pregnant woman, enhancing her experience throughout pregnancy and increasing the chances of the delivery of a healthy infant.

EARLY PREGNANCY CLASS CURRICULUM

Teaching the Adult Learner

When teaching is to be accomplished, it is vital for the instructor to adapt herself to the needs of those being taught. This is especially true of adult education. Most adults are motivated to seek further education because a problem has arisen that cannot be met with present resources. Keeping this idea in mind, most adult education should be problem oriented and lend itself to practical application. Several other principles of teaching the adult learner follow.

1. Adults like to determine their own learning experiences.
2. Adults learn from other's experiences as well as from their own.
3. A small group format may be an effective approach for facilitating the learning process for the adult.
4. Participative learning gets adults actively involved in the learning-teaching process.
5. Physical comfort is an important consideration when planning an adult learning experience. (Tarnow 1979)

These basic ideas should be kept in mind when planning an early pregnancy class. Enrollment should be limited to 4-6 couples and classes conducted in a comfortable room and relaxed atmosphere with high group participation encouraged. It is important that the leader of such a group assume a role to "help the learner discover" rather than be the "one who knows all" (Tarnow 1984). While a basic curriculum should be established, participants should be encouraged to voice

their own needs and expectations. These should then be given a priority and incorporated into the classes (Tegmeier 1984).

COURSE GOALS

Promote the optimal physical, emotional, and psychological experience for the woman and significant other.

Promote the healthy birth of a full-term, normal infant.

Class I Needs Assessment
 Fetal and Maternal Development

Objectives

Each client will develop personal goals and expectations for the class.

Each client will demonstrate understanding of fetal and maternal development.

As this class will be the first meeting of the group, time should be taken to allow members to meet and learn a little about each other. This can be facilitated by having a brief "social hour" at the beginning of the class. Over a nutritious snack individuals can be given an opportunity to meet each other, with the instructor acting as host. Afterwards a needs assessment can be conducted.

The questionnaire developed to assess the needs of the target population can be used at the beginning of the course to point out any areas of special concern for each class. In addition, class members should be asked to list their personal goals and expectations for the course and their

pregnancy. When the questionnaires have been completed, a brief discussion of the content of the classes by the instructor can follow.

The second hour is reserved for a discussion of fetal and maternal development. It is important to make the information personalized and real to the members of the class. This can be done by describing the stage of development of each fetus in the class. Afterward, the further fetal development to occur during the rest of pregnancy and a description of maternal development can be given. Visual aids such as the Birth Atlas and Time Magazine's fetal life series would be extremely helpful for this class. To conclude parents can be assisted to listen to the fetal heart beat using a Doppler. This being done to encourage bonding with the fetus (Cameron 1979).

With the conclusion of the first class, it is important for the instructor to evaluate the questionnaires, goals, and comments of the parents and adapt the remaining three sessions to meet their needs.

Class II Costs of Pregnancy
 Prenatal Testing

Objectives

Class members will be able to follow through on seeking financial aid as needed.

Class members will buy equipment that is cost effective and safe.

Class members will demonstrate a knowledge of the purpose and procedure of various prenatal tests.

The emphasis given to financial assistance during pregnancy and childbirth will depend on the economic background of the class members. Referrals should be made as needed. If necessary this time can also be spent discussing budgeting.

The second half of the first hour should be spent teaching the parents to be "smart shoppers" in regard to various purchases for infants. The discussion of equipment such as infant strollers, seats and toys should include both cost effectiveness and safety. According to Cameron, fathers seem to relate especially well to this topic and such discussion serves to highlight the protective role of the parent.

After a brief break the second hour should be devoted to the description of various prenatal tests. The tests discussed should range from the simple urine tests done at each prenatal visit to amniocenteses, sonograms and stress and nonstress testing. Class members should be encouraged to describe their understanding of each test with the instructor clarifying any misconceptions and "filling in the gaps" as it were. If any individuals in the class have undergone any of the tests, they could describe their experience for the others.

Class III Nutrition
 Exercise

Objectives

Clients will be able to make a daily menu meeting all the nutritional needs of the woman.

Clients will avoid using drugs, alcohol, and tobacco during pregnancy.

Clients will incorporate prenatal exercises into their daily lives.

Teaching about nutrition should follow group discussion of what class members already understand of the topic and what teaching they have already had during prenatal visits. Previous knowledge can then be reinforced before new material is introduced. With today's emphasis on being fit and trim, it is important that the women understand the need for adequate weight gain. The Birth Atlas can be used again to emphasize the amount of tissue created during pregnancy and the necessity for adequate nutrition (Tegtmeier 1984).

During this hour the adverse effects of smoking, alcohol, and drug use also needs to be discussed. For those who do smoke, referrals may be needed to a smoking-withdrawl program. Family support during withdrawl should not only cover prescribed drugs, but also over-the-counter products and the possible effects of caffeine (Tegemeier 1984).

Rather than merely discussing prenatal exercising during the second hour, a mini workout can be implemented. Proper body mechanics and various exercises can be demonstrated and then practiced by the clients. It should be emphasized that during normal pregnancy, a woman can continue her previous exercise practices as long as she avoids extreme fatigue and combines exercise with rest periods. Sports such as swimming,

tennis and golf can be suggested. The benefits of such exercise should be emphasized. Other topics that need to be discussed include traveling safely and continued employment during pregnancy.

Class IV Common discomforts/Danger signals
 Psychological Adjustment to Pregnancy

Objectives

 Clients will be able to relieve most discomforts caused by pregnancy.

 Clients will seek medical attention when appropriate.

 Clients will find pregnancy to be a happy and rewarding experience.

 The Teachers Guide to the Childbearing Years gives an excellent description of common discomforts of pregnancy and methods to ensure their relief. Using this material each woman should be given advice for the discomforts she is already experiencing. Discussion of danger signals such as vaginal bleeding, above the waist edema, headaches, visual disturbances, and premature rupture of the membranes should follow. This information compiled into handouts to take home would be most useful to give the families.

 The second half of this final class should be devoted to helping couples adjust to the pregnancy. Open discussion and reverse role playing can be very helpful in dealing with ambivalent feelings related to pregnancy. Bretschneider and

Minetola also offer two excellent questionnaires designed to stimulate conversation between couples concerning adjustment to the pregnancy both sexually and emotionally. Any advice about helping siblings adjust to pregnancy and childbirth that the class members can offer each other or that the instructor can give should be discussed.

At the conclusion of this class it should be emphasized that the instructor will remain a source of support throughout the remaining pregnancy. Ideally these clients will be returning to the same nurse practitioner for childbirth and parenting classes. An evaluation should also be completed by the entire class relevant to the content and presentation of course material.

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APPENDIX A

EXPERT 1

1. Exercise
2. Nutrition/drugs
3. Psychological adjustment
4. Purpose of MD visits
5. Fetal development

EXPERT 2

1. Normal versus significant symptoms
2. Nutrition
3. Exercise
4. Common discomforts and relief
5. Psychological adjustment of husband

EXPERT 3

1. Lifestyle changes
2. Nutrition
3. Antepartal testing
4. Body mechanics
5. Fetal development

EXPERT 4

1. Discomforts of pregnancy
2. Nutrition
3. Sexual adjustment
4. Family adjustment
5. Exercise

EXPERT 5

1. Growth and development
2. Husband/wife relationship
3. Old wives tales
4. Costs of pregnancy
5. Significant symptoms

APPENDIX B
INFORMED CONSENT FORM

Early pregnancy classes have the potential of both increasing the satisfaction and decreasing the risks of pregnancy.

I am a senior nursing student interested in teaching such a class. I am conducting this study in order to complete an Honors College thesis. The purpose of my study is to identify learning needs of mothers in the first 20 weeks of pregnancy and prepare an early pregnancy course outline based on these learning needs.

Your participation in the study will be to respond to the questionnaire and answer 3 brief background information questions. The questionnaire will take about 15 minutes to complete. After the questionnaire has been coded in terms of what office or clinic it is from, the results analyzed and tallied, your questionnaire will be destroyed. Your anonymity is guaranteed. Only my faculty advisor, Connie Rose, Parent-Child instructor at Ball State, and I will be handling the results.

The office or clinic receptionist or nurse will give you an envelope with my name on it. You are to place your questionnaire in the envelope, seal it and return it to the office or clinic personnel. If you have any questions you may call Miriam Schroeder or Connie Rose at the phone numbers listed below. You may withdraw from the study at any time. The results will be available at your clinic or physician's office. A copy of the consent will be provided at you request.

Thank you.

I, the undersigned, agree to complete the attached questionnaire. I understand that my participation is totally voluntary and is in no way related to the care I receive at this office/clinic.

signed

date

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EARLY PREGNANCY CLASS QUESTIONNAIRE

DIRECTIONS: Answer each question in terms of your present pregnancy. The last question asks for written comments. On each scale please circle the number that best describes your feelings or response to the statement. The rating system follows. If a question does not apply to your present pregnancy, please circle the corresponding number of that question.

- 1 = strongly disagree
 2 = disagree
 3 = undecided
 4 = agree
 5 = strongly agree

1. I would like to know more about nutrition during pregnancy.

1	2	3	4	5
strongly disagree				strongly agree

2. Information about the various expenses during pregnancy would be helpful.

1	2	3	4	5
strongly disagree				strongly agree

3. I find it easy to tell the difference between valid information concerning pregnancy and old wife's tales.

1	2	3	4	5
strongly disagree				strongly agree

4. I would like to know more about exercising safely during pregnancy.

1	2	3	4	5
strongly disagree				strongly agree

5. I need to know more about the various tests possible during pregnancy, i.e. amniocentesis, nonstress testing.

1	2	3	4	5
strongly disagree				strongly agree

6. I would like to know more about how to help myself adjust at this pregnancy..

1	2	3	4	5
strongly disagree				strongly agree

7. Information about how to help my husband adjust to this pregnancy would be helpful.

1	2	3	4	5
strongly disagree				strongly agree

8. I understand fully the scheduling and purpose of visits to the doctor during pregnancy.

1	2	3	4	5
strongly disagree				strongly agree

9. I would like to know more the physical/physiological changes in a woman during a pregnancy.

1	2	3	4	5
strongly disagree				strongly agree

10. Information about the common discomforts of pregnancy and how to relieve them would be helpful.

1	2	3	4	5
strongly disagree				strongly agree

11. I would like to know more about fetal development.

1	2	3	4	5
strongly disagree				strongly agree

12. I can easily tell the difference between normal discomforts of pregnancy and signs that something may be wrong.

1	2	3	4	5
strongly disagree				strongly agree

13. I find it easy to explain this pregnancy and childbirth to my other children.

1	2	3	4	5
strongly disagree				strongly agree

14. I would like to know more about the changes I need to make in my daily activities during pregnancy.

1	2	3	4	5
strongly disagree				strongly agree

15. Please add any other areas you would like to know more about concerning your pregnancy that were not mentioned on the questionnaire.

Your age: _____

Number of previous pregnancies: _____

Ages of other children: _____

APPENDIX C

DEMOGRAPHIC DATA

CLINIC CLIENTS

ID number	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Age	23	24	17	23	21	27
Previous Pregnancies	1	0	0	1	1	1
Number of Children	0	0	0	0	1	0

Age range 17-27

Mean age 22.5

PRIVATE PHYSICIAN CLIENTS

ID number	<u>-1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Age	28	28	23	19	21
Previous Pregnancies	0	0	3	0	1
Number of children	0	0	0	0	0

Age range 19-28

Mean Age 24

APPENDIX D

QUESTION	RESPONSES				
	1	2	3	4	5
1.	0	2	2	6*	1
2.	0	2	2	5*	2
+3.	0	0	5*	5*	1
4.	0	1	2	5*	3
5.	0	1	3	6*	1
6.	0	3	1	6*	1
7.	0	4*	1	4*	2
+8.	1	0	2	6*	2
9.	0	3	0	7*	1
10.	0	0	3	6*	2
11.	0	0	3	5*	3
+12.	2	2	4*	2	1
+13.	0	0	0	1*	0
14.	0	1	0	9*	1

* Mode response for each question

+ Negatively worded question. Responses should be toward the left end of the scale to indicate need.

APPENDIX E
RESPONSES TO QUESTION 15

Clinic clients

ID number 6

" all answered"

Private Physicians's clients

ID number 3

" I have had two miscarriages so sometimes I can get scared about discomforts."

ID number 5

" The effects of abortion on (the) uterus and a child brought to term. More information on the financial possibilities for woman who don't qualify (for aid) because boyfriend (FOB) makes too much money."