Original Article

Access this article online

Quick Response Code:

Website: www.jehp.net

DOI: 10.4103/jehp.jehp_141_20

The relationship between hope and happiness with prenatal care

Elham Sadat Hoseini, Raziyeh Rahmati[1], Fatemeh Shaghaghi[2], Marjan Beigi[3], Zahra Mohebbi-Dehnavi[4]

BS of Midwifery, Student Research Committee, School of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran, [3]Department of Midwifery and Reproductive Health, Faculty of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran, [4]PhD Candidate in Reproductive Health, Department of Midwifery and Reproductive Health, School of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran, [1]MSC of Midwifery, Larestan University of Medical Sciences, Larestan, Iran, [2]Department of Midwifery, Faculty of Medicine, Social Development and Health Promotion Research Center, Gonabad University of Medical Sciences, Gonabad, Iran

Address for correspondence:
Dr. Zahra Mohebbi-Dehnavi, PhD Candidate in Reproductive Health, Department of Midwifery and Reproductive Health, School of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran.
E-mail: zahra.midwife@yahoo.com

Received: 19-02-2020
Accepted: 03-04-2020
Published: 31-08-2020

Abstract:

INTRODUCTION: Prenatal care refers to proper and principled implementation aimed at maintaining a healthy pregnancy in terms of physical health and favorable psychological outcomes for the mother, infant, and family. The adequacy of prenatal care is an important indicator in predicting infant and maternal mortality. Mental health components such as hope and happiness can influence the quality of prenatal care. The aim of this study was to determine the relationship between hope and happiness with prenatal care.

METHODS: This is a cross-sectional study that was performed on 200 pregnant mothers referred to Isfahan, Iran, comprehensive health centers in 2018 using an available sampling method. The research instrument was a questionnaire of hope, happiness, and quality of prenatal care that was completed by qualified people. The data were analyzed by descriptive and analytical statistical methods (Pearson correlation).

RESULTS: The results of this study showed that there is a significant relationship between the adequacy of care and overall hope score (P = 0.032). There was also a positive and significant relationship between the adequacy of care and the subscales of hope (thinking [P = 0.002] and path [P = 0.004]). There was a positive and significant relationship between the adequacy of prenatal care and overall happiness score (P = 0.03). Positive emotion subscale (P = 0.033) had a significant positive correlation and negative emotion subscale (P = 0.001) had a significant negative relationship with the adequacy of prenatal care.

CONCLUSION: According to the results, mental health can affect the quality of prenatal care. As a result, health providers to pregnant mothers can improve the adequacy of prenatal care by examining pregnant women in terms of these two issues, thereby improving the health of themselves and their children, and ultimately, community health.

Keywords:

Happiness, hope, prenatal care

Introduction

Prenatal care refers to proper and principled implementation aimed at maintaining a healthy pregnancy in terms of physical health and favorable psychological outcomes for the mother, infant, and family. The adequacy of prenatal care is an important indicator in predicting infant and maternal mortality. A comprehensive prenatal care program includes a coherent, integrated approach that includes medical care and psychosocial support and, in optimal conditions, begins before pregnancy and continues throughout the prenatal period.[1] The ultimate goal of these services is to protect the health of the mother and child.[2] Diagnosis of pregnancy and high-risk cases, prevention of these cases, minimization of anxiety and fear associated with childbirth, reduction of morbidity and mortality in children and mothers, education of caring principles, nutrition, personal hygiene, and improvement of the environment for the mother are the proprietary components

How to cite this article: Hoseini ES, Rahmati R, Shaghaghi F, Beigi M, Mohebbi-Dehnavi Z. The relationship between hope and happiness with prenatal care. J Edu Health Promot 2020;9:206.

of this program.[2] Paying attention to the importance of pregnant mothers' health leads to infant health and ultimately community health.[3]

Research has shown that adequate prenatal care is an effective intervention to improve pregnancy outcomes.[4] Adequate pregnancy care provides an opportunity for counseling and reducing pregnancy-related complications.[5] Women who receive inadequate care during pregnancy are more likely to experience problematic situations and dysfunction in themselves and their families. Children born to mothers who do not have prenatal care are three times more likely to have low birth weight and five times more at risk of dying than those whose mothers have received adequate care during pregnancy. Pregnancy and the birth of newborns are among the most important events in the life of every woman and her family. It is an opportunity for hope and happiness or time for fear, suffering, or even death.[6] Various factors can affect the quality of prenatal care. As Keeley *et al*.'s study showed, there is a significant relationship between the adequacy of prenatal care and mental health problems. Hope and happiness are among the factors affecting mental health.[7] In the new psychology texts of hope, it is the ability to understand the pathways that lead to desirable goals and to motivate oneself through factor thinking to apply these pathways.[8] According to Hope's theory, people's perceptions of hope reflect their aptitude for clarifying goals, developing specific strategies to achieve those goals (cross-thinking), and initiating and maintaining motivation to apply these strategies. Bus and agent components are both essential, but neither of these alone is sufficient for successful maintenance and pursuit of goals. Crossing thoughts and collecting factors are common and positively related but not synonymous.[9] Research on hope has shown that hope predicts psychological health, better coping, less depression, and life satisfaction.[10] Hope is associated with different physical and psychological health and successes.[9] Both the dimensions of hope, through targeted behaviors, are essential in forming and determining the level of hope needed and the wave of adaptation and physical and mental health.[11] Happiness is one of the positive emotions that comes with negative emotions such as depression, anxiety, and despair. Just as depression and despair have a negative effect on a person's performance, social happiness and happiness have a positive effect on a person's performance and productivity.[12] Happiness is defined as a positive feeling about self and personal life. Happiness as a positive inner experience and one of the indicators of mental health resulting from people's cognitive and emotional evaluation of their lives has been the focus of many psychologists in recent decades. Happiness is a broad concept that has both cognitive and emotional components. The emotional component means pleasure (the balance between pleasant and unpleasant emotions) and the cognitive component means life satisfaction. People, if they are happy, see the world as a safer place, have a sense of cooperation and help with others, and process information in a way that leads to greater happiness.[13] Happiness in pregnancy reduces depression and anxiety, and happier women have greater ability to control pain because of their higher self-esteem and sense of personal control.[14] Unhappiness leads to negative experiences and poor quality of pregnancy. Unhappiness reduces the attachment of mother and fetus and the attachment of mother and child by affecting the mother's sense of worth. These negative experiences lead to irritable and anxious moods, which can lead to adverse reactions to pregnancy and stress. Adverse outcomes include uterine growth retardation, preterm labor, prolonged labor, fetal heart rate decline, low birth weight, increased cesarean section, postnatal neurobehavioral problems, and developmental disorder.[15] Women who are unhappy with pregnancy are at risk for depression and risky behaviors (such as smoking, drinking alcohol, drug abuse, and experiencing violence during pregnancy) and not receiving adequate prenatal care.[14] Prenatal care is one of the most important cares for maternal and fetal health and can prevent many future maternal and newborn problems, but these can be problematic for a variety of reasons. Since mental health is very important during pregnancy, happiness and hope are two important factors in mental health. Considering the importance of prenatal care, the purpose of this study was to determine the effect of two components of mental health, namely happiness and hope, on receiving prenatal care.

Methods

This was a cross-sectional analytical study. The study population was mothers who referred to comprehensive health centers affiliated to the Isfahan University of Medical Sciences in 2018 to receive postpartum care. The sample size was determined using G * Power software and according to the studies with 95% confidence level and 80% test power. The final sample count was 200, with a 7% probability of sample loss. Inclusion criteria were pregnancy with a fetus, pregnant women with no known diseases, midwifery, and medical problems affecting pregnancy status and maternal and neonatal outcomes. Exclusion criteria were use of psychotropic drugs, experience of an accident or anxiety during pregnancy, and medical illness (thyroid, diabetes, hypertension, cardiovascular diseases, kidney, neurological, etc.). Multistage sampling was performed. Thus, three centers (Navab, Motahari, and Amir Hamzeh) were selected from the Isfahan comprehensive health centers

in the first stage. Subsequently, the sampling was done from each center according to the number of pregnant women referred to that center, using an available and purposeful sampling method.

Data collection tool was a questionnaire consisting of five parts: the first part was demographic information, the second part included information on pregnancies (age at first pregnancy, number of pregnancies, number of abortions, number of live births, time to previous delivery, current gestational age, number of prenatal care, and gestational age at first care), the third part was the Snyder Hope Questionnaire, the fourth section was the Oxford Happiness Questionnaire, and the fifth part was the adequacy of care. All relevant information were collected by the researcher after confirming the research at the Student Research Center of Ethics and obtaining permission from Isfahan University of Medical Sciences and after explaining the goals and working methods for mothers and obtaining their consent and completing the questionnaire.

The Snyder Hope Questionnaire (1991) is a 12-item scale. The Likert scoring is 8 degrees (from completely disagree [score 1] to completely agree [score 8]). The questionnaire consisted of a thinking subscale consisting of four questions (Questions 2, 9, 10, and 12) and a path subscale of four questions (Questions 1, 4, 7, and 8) and four deviant questions (Questions 3, 5, 6, and 11). Scoring questions 1, 5, 7, and 11 are as deviating questions to increase test accuracy and are eliminated. The validity and reliability of this questionnaire have been reviewed and validated by many researchers.[16] In this study, the reliability of this questionnaire was determined using test-by-test method and was confirmed with an alpha of 0.85.

The PANAS-N Happiness Questionnaire is a 20-item assessment tool. The questionnaire was designed to measure two affective dimensions (negative emotions and positive affect) (Watson, Clark, and Telgene). Each subscale has 10 items. Items are rated on a 5-point scale (from not at all = one to very high = five). The total range of scores for each subscale is 10–50. The validity and reliability of this questionnaire have been reviewed and confirmed by many researchers.[16] In this study, the reliability of this questionnaire was determined using test-by-test method and was confirmed with an alpha of 0.79.

A standard Kotelchuck tool was used to determine the adequacy or how to receive prenatal care. First, the number of care received was divided into 10 as standard care, and then multiplied by 100. Thus, the percentage of care received was obtained. This questionnaire is valid and reliable.[2]

Written consent was obtained from the participants at the beginning of the study. All participants were assured that their participation in the study or not would not lead to bias in their treatment, and they could withdraw from the study at any time, and the results would be made available at the end of the study. This study was approved by the Student Research Committee of School of Nursing and Midwifery of Isfahan University of Medical Sciences under code IR.MUI.REC.1396.1.202. If the scores of the hope and happiness questionnaires in the participants in the study were low, they would be referred to a physician at the Comprehensive Health Services Center for appropriate treatment. Finally, the data were coded and analyzed using SPSS software version 22 (IBM, SPSS Inc., Chicago, Illinois, USA) (using descriptive statistics and Pearson statistics).

Results

The results showed that the mean age of the mothers participating in the study was 27.66 ± 6.09 years. In terms of the level of education, most of the participants had a diploma and under diploma (263 = 54.9%). The income level of most participants was low to moderate (834 = 86.6%). The majority of participants had a female infant (253 = 51.1%).

The mean scores of happiness and hope of mothers participating in the study are listed in Table 1.

The results of this study showed that there is a significant relationship between the adequacy of care and overall hope score (P = 0.032). There was also a positive and significant relationship between the adequacy of care and the subscales of hope (thinking [P = 0.002] and path [P = 0.004]). There was a positive and significant relationship between the adequacy of prenatal care and overall happiness score (P = 0.03). Positive emotion subscale (P = 0.033) had a significant positive correlation and negative emotion subscale (P = 0.001) had a significant negative relationship with adequacy of prenatal care [Table 2].

Table 1: Mean of overall scores and dimensions of hope and happiness of mothers during pregnancy

Variables	Average	SD	Minimum	Maximum
Overall happiness score	54/24	11/87	26	97
Dimensions of happiness				
Positive emotions	31/72	5/46	12	49
Negative emotions	22/52	6/41	14	48
Hope	53/17	2/59	47	67
Dimensions of hope				
Thinking	28/63	2/26	24	32
Path	24/53	1/31	23	43

SD=Standard deviation

Table 2: Investigating the relationship between maternal hope and happiness during pregnancy and total care during pregnancy

The variables of hope and happiness	Total prenatal care	
	*P**	Correlation coefficient
Overall happiness score	0/032	0/019
Dimensions of happiness		
Positive emotions	0/002	0/132
Negative emotions	0/004	0/111
Hope	0/001	0/100
Dimensions of hope		
Thinking	0/001	0/12
Path	0/001	−0/014

**P*<0/005 is significant

Discussion

The results of this study showed that there is a positive and significant relationship between the adequacy of care and overall hope score and its subscales including thinking and path. There was a significant positive relationship between the adequacy of prenatal care with the overall score of happiness and the positive emotion subscale. There was a significant negative relationship between the adequacy of prenatal care and the negative emotion subscale. In other words, with increased hope and positive happiness, caregiving behaviors will increase, resulting in timely prenatal care. On the other hand, increasing negative emotions increases the feeling of depression and hopelessness in life, as a result of not performing caring behaviors and making their lives meaningless and unable to seek proper care.

Ghazanfari and Zamani study aimed to determine the relationship between memory self-efficacy and life expectancy with quality of life in Isfahan elderly. The results showed that life expectancy has a positive and significant relationship with the quality of life in the elderly. The positive relationship between life expectancy with high physical, mental, and self-esteem and negative relationship with negative emotions may justify these findings. Life expectancy was significantly correlated with health indicators, mental health, family and kinship, social participation, marital status, amenities, and social relationships,[17] which is consistent with the present study.

Furthermore, the results of the study by Hosseinsabet and Fayezipour showed that happiness is one of the characteristics necessary for enjoying life and promoting life satisfaction.[18] The results of Alipour and Aarab Sheibani study aimed at the relationship between happiness and life expectancy in Behbahan medical students showed that there is a positive and significant relationship between hope and happiness and job satisfaction.[19] The results of Ghanbarian *et al*.'s study aimed at determining the relationship between hope and happiness with teachers' job satisfaction showed that there is a positive and significant relationship between hope and happiness.[20] Although our study was conducted on pregnant women with the aim of measuring the two components of happiness and hope with adequate prenatal care, all the results of these studies agree with the results of the present study and confirm the present results, despite the differences in research units.

Various studies have shown that high levels of hope and life expectancy are associated with physical and mental health, high self-esteem, and positive thinking, and high life expectancy is directly or indirectly effective in treatment.[17] Happiness is a factor in generating benefits far more than just feeling good. Happier people are healthier and much more successful and have greater social engagement and commitment. A person who has a happy mood for doing positive daily activities puts the focus on his or her activity.[21] Hopeful people work harder and harder because they expect a positive output from their work, and their workflow is characterized by a strong motivation for success and high level of sustainability in challenging tasks, more effective performance, and greater overall success.[19]

Happiness can be measured in three dimensions, including good life, committed life, and meaningful life. Pleasant people are more successful in different situations of life and health. Pregnancy itself is the experience of physical and mental disorders, and during this period, the woman not only realizes her health but also is in the emotional and intellectual circle of fetal health at any moment. Thus, the presence of stress, discomfort, and anxiety associated with this period causes happiness to diminish.[22]

In other words, happiness means how much a person loves his life. Happy people perform better. One of the most important sources of happiness is paying attention to health and doing meaningful and productive things. Valuing is a sign of happiness.[23] According to the results of this study, attention is paid to the mental health of pregnant mothers in line with their physical care to improve the quality of life and improve the adequacy of prenatal care. This is because by identifying mothers with less hope and happiness, we can take steps to increase these two dimensions and help them strive for their own health and the health of their children and to take proper care of their pregnancies. In other words, it is important to note that pregnant mothers may experience emotional distress during pregnancy due to the stress of pregnancy, which can reduce their hope and happiness. Therefore, pregnancy is a good time for screening and related diagnoses in this regard, and it is obligatory for

all health-care staff to rush to the aid of pregnant women with timely interventions and the necessary guidance and to maintain mental health and improve the quality of life.[24-27] They should try and be more serious in this regard because all these measures will eventually lead to the promotion of public health. Due to the lack of a study evaluating the relationship between hope and happiness in pregnant women with the adequacy of prenatal care, the comparison of the results of this study with other studies was deficient. Therefore, descriptive and analytical research in different groups of pregnant women is emphasized.

Conclusion

The results of this study showed that there is a positive and significant relationship between the adequacy of care and overall hope score and its subscales including thinking and path. There was a significant positive relationship between the adequacy of prenatal care with the overall score of happiness and the positive emotion subscale. There was a significant negative relationship between the adequacy of prenatal care and the negative emotions subscale. According to the results of this study, attention is paid to the mental health of pregnant mothers in line with their physical care to improve the quality of life and improve the adequacy of prenatal care. According to the results, health-care providers can improve the adequacy of maternity care by examining pregnant women in terms of these two issues, thus improving the health of mothers and their children, and ultimately, the health of society.

Acknowledgments

This study is part of a research project approved by the Student Research Committee of the School of Nursing and Midwifery of Isfahan University of Medical Sciences. The author would like to thank the research assistant of Isfahan University of Medical Sciences for providing this research.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Scott JR. Danforth's Obstetrics and Gynecology. 11th ed. Philadelphia: Lippincott Williams & Wilkins; 2011. p. 214-21.
2. Bostani Khalesi Z, Rafat F, Pakseresht S. Relationship between adequacy of prenatal care utilization index and neonatal outcomes. journal of HOLISTIC NURSING AND MIDWIFERy. 2016;25(76):8-15.
3. Debiec KE, Paul KJ, Mitchell CM, Hitti JE. Inadequate prenatal care and risk of preterm delivery among adolescents: A retrospective study over 10 years. Am J Obstet Gynecol 2010;203:122.e1-6.
4. Tayebi T, Sh TZ, Sh JN, Ali Mohammadpour R. The relationship between the effectiveness index of quantitative adequacy of pregnancy care and preterm delivery. J Mazandaran Univer Med Sci 2011;21:87-95.
5. Miranda AE, Trindade CR, Nunes RH, Marba EF, Fernandes MC, Quarto GH, *et al*. Factors associated with prenatal care and seeking assistance in public hospitals in Vitória, Espírito Santo, Brazil. Women Health 2010;50:229-40.
6. Hakari D, Mohammadzadeh R, Velayati A, Bolourian M. Investigation of the inhibitory factors on the incidence of pregnancy care and its relation with the outcome of pregnancy in women referring to a number of Tabriz hospitals. J Islamic Azad Univer 2011;21:206-13.
7. Keeley RD, Birchard A, Dickinson P, Steiner J, Dickinson LM, Rymer S, *et al*. Parental attitudes about a pregnancy predict birth weight in a low-income population. Ann Fam Med 2004;2:145-9.
8. Snyder CR, Feldman DB, Shorey HS, Rand KL. Hopeful choices: A school counselor's guide to hope theory. Prof Sch Couns 2002;5:298-307.
9. Valikhani A, Salary Salajeghe M, Khormaee F. Predicting students' domain specific hope within the framework of their attachment styles. Knowl Res Applied Psychol 2016;17:65-73.
10. Geiger KA, Kwon P. Rumination and depressive symptoms: Evidence for the moderating role of hope. Pers Individ Diff 2010;49:391-5.
11. Afrooz GA, Dalir M, Sadeghi M. The effectiveness of positive psychotherapy on body image, life expectancy and happiness in women with mastectomy experience. Health Psychol 2018;6(4):180-195.
12. Abbaszadeh M, Alizadeh Aghdam M, Koohi K, Alipour P. Types of funds, missing circle in explaining the happiness of students at Tabriz university. Soc Welfare Q 2012;13:215-44.
13. Amani R. Happiness in the elderly: The role of self-esteem. J Aging Psychol 2015;2:73-80.
14. Hashemi Asl BM, Golmakani N, Shakeri MT, Sajjadi AR. The level of happiness in pregnancy and its related factors in pregnant women in Mashhad in 2013. *The Iranian Journal of Obstetrics, Gynecology and Infertility*. 2015;17(137):19-27.
15. Nasiri Amiri F, Salmalian H, Mohamadpour RA, Ahmadi AM. Association between prenatal anxiety and spontaneous preterm birth. Iran Red Crescent Med J 2010;10:650-4.
16. Kamari S, Shekhaleslami R. The mediating role of optimism on the relationship of individual attachment style with the amount of happiness and their life expectancy. Applied Res Educ Psychol 2015;2:50-67.
17. Ghazanfari M, Zamani E. The relationship between memory self-efficacy and life expectancy with life quality in Esfahan elderly. Q J Health Breeze 2016;4:29-34.
18. Hosseinsabet F, Fayezipour M. The correlation of personality characters and hope in HIV- positive patients. Couns Culture Psycother 2013;4:1-14.
19. Alipour A, Aarab Sheibani K. Relation of Hopeness and happiness with job satisfaction among teachers. J Modern Psychol Res 2011;6:65-78.
20. Ghanbarian M, Parmouz M, Rajabzadeh Z. The relationship between the happiness and life expectancy among the students of medical sciences in Behbahan city. J Fundamentals Ment Health 2016;18:553-6.
21. Sepehrian Azar F, Mohammadi N, Badalpoor Z, Norozzadeh V. The relationship between hope and happiness with marital satisfaction. J Health Care 2016;18:37-44.
22. NASIRI KANARI F, ALIVANDI VAFA M. The prediction of pregnancy anxiety on the basis of subjective well-being and happiness of pregnant women in Tabriz, Depiction of Health. 2017;8(1):34-43.
23. Hashemi Asl B, Golmakani N, Shakeri M, Sadjadi A. The level of happiness in pregnancy and its related factors in pregnant

women of Mashhad city in 2013. Iran J Obstetr Gynecol Infertil 2015;17:19-27.
24. Ghorbani-Marghmaleki F, Mohebbi-Dehnavi Z, Beigi M. Investigating the relationship between cognitive emotion regulation and the health of pregnant women. Educ Health Promot 2019;8:175. Available from: http://www.jehp.net/text.asp?2019/8/1/175/268096. [Last accessed on 2020 Apr 02].
25. Kiani-Sheikhabadi M, Beigi M, Mohebbi-Dehnavi Z. The relationship between perfectionism and body image with eating disorder in pregnancy. J Educ Health Promot 2019;8:242.
26. Noroozi M, Gholami M, Mohebbi-Dehnavi Z. The relationship between hope and resilience with promoting maternal attachment to the fetus during pregnancy. J Educ Health Promot 2020;9:54.
27. Ghorbani-Marghmaleki F, Mohebbi-Dehnavi Z, Beigi M. Investigating the relationship between cognitive emotion regulation and the health of pregnant women. J Edu Health Promot 2019;8:175.