Research Article

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The comparison of quality of life between normal and high risk pregnant women in Iran:A systematic review and meta-analysis

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Abstract

Introduction: Pregnancy is one of the most important stages in a woman's life. several changes occur during gestation period in terms of physical, spiritual, social and overall quality of life of pregnant women. There are a number of important risk groups that need to be identified and given special attention to, during pre-natal and even pre-pregnancy periods; individuals with chronic diseases, such as diabetes, hypertension, heart disease, etc. Women with high-risk pregnancies encounter dangers in their personal, family and social life, which can cause huge changes in their physical, mental, social and, in general, quality of life

Method: the authors searched international databases (including MEDLINE, [the interface of PubMed], Google scholar, Web of Science [the interface of Web of Science]), national databases (including Scientific Information Database (SID) and Migiran), and national journals. For searching the titles and abstracts, Boolean operators (AND, OR, and NOT), Mesh, truncation ("*") were used. In the searches conducted the following keywords were used: quality of life, high risk pregnancy, pregnancy, diabetes, hypertension, heart disease, fetal mortality.

Result:T he findings of the study on the comparison of quality of life in pregnant women with normal and high risk pregnancies showed that the mean score of quality of life in pregnant women with normal pregnancy was higher than that of pregnant women with high risk pregnancies; i.e. women have a natural predisposition to quality of life.

Discussion: Given the fact that quality of life plays a significant role in the health of pregnant women, few studies have been conducted on health-related quality of life in high-risk pregnancies. Life-saving habits in pregnant women with high risk pregnancies are lower than quality of life in women with normal pregnancy. Therefore, identifying high-risk pregnant women is especially important when it comes to prenatal care; thus, efforts are required to improve the quality of life of this group of pregnant women.

Keywords: quality of life, high risk pregnancy, pregnancy, diabetes, hypertension, heart disease, fetal mortality

Introduction

Pregnancy is one of the most important stages in a woman's life. Despite having its own joys and pleasures, pregnancy is often considered as a stressful period with physiological and psychological changes (1). Additionally, it is accompanied with a variety of common discomforts and problems, such as nausea and vomiting, fatigue, cramp and varicose, sudden pain under the ribs, edema, etc. (2). These changes can have a significant impact on activities (3). Even in a natural and normal pregnancy, these changes alter the ability of a woman to perform routine roles (4). Therefore, several changes occur during gestation period in terms of physical, spiritual, social and overall quality of life of pregnant women (5).There are a number of important risk groups that need to be identified and given special attention to, during pre-

natal and even pre-pregnancy periods; individuals with chronic diseases, such as diabetes, hypertension, heart disease, etc.;those who have a history of gestational complications, such as fetal mortality, abnormalities, and pains and cord injuries in previous pregnancies (6); and those with current bleeding problems such as hemorrhage, premature rupture of the abdominal cavity, abnormal fetal appearance, weight gain or excessive overweight, and those with evidence of malnutrition (5). Women with high-risk pregnancies encounter dangers in their personal, family and social life, which can cause huge changes in their physical, mental, social and, in general, quality of life (7).Quality of life covers different physical, mental, and social health dimensions of the individual. These dimensions are measurable during pregnancy and the measurement of quality of life in planning for the care of mothers and infants and understanding the need for health care is important (8). In fact, health-related quality of life implies an individual's mental assessment of her current state of health, health care, and health promoting activities that give rise to a general level of activity and allow one to express and fulfill valuable objectives of her life.

Materials and Methods

1. Search strategy and databases

The reviewing of references and sources was conducted by using medical subject headings (Mesh) and key words related to the information sources on reviewing and The comparison of quality of life between normal and high risk pregnant womenin Iran. For finding the references,the authors searched international databases (including MEDLINE, [the interface of PubMed], Google scholar, Web of Science [the interface of Web of Science]), national databases (including Scientific Information Database (SID) and Migiran), and national journals. The searching process was conducted without making any restrictions in the setting and language up to December 30th of 2017.For designing the strategy, PRESS standard and Health Science Librarian were applied. For searching in other databases, MEDLINE was applied. In addition, PROSPERO was used for searching the ongoing reviews as well as reviews conducted recently. For searching the titles and abstracts, Boolean operators (AND, OR, and NOT), Mesh, truncation ("∗") were used. In the searches conducted the following keywords were used: quality of life, high risk pregnancy, pregnancy, diabetes, hypertension, heart disease, fetal mortality.

Study selection

The results of reviewing the references were given in the Endnote. Before initiating the formal screening process, calibration was conducted to refine the screening. The formal screening procedure of titles and headings were conducted by two researchers based on the eligibility criteria. Consensus-decision making approach was applied to eliminate the disagreements existing between the researchers. For titles meeting the inclusion criteria, the entire text was considered. For solving the disagreements on the eligibility criteria, the extra information of the articles was considered. The reasons for excluding the articles were also recorded. The researchers conducting the reviewing process were provided with the name of the journal, the authors, and the institutes.

2. Data extraction, quality assessment

The extracted data were obtained from the general information (lead author, brief title, country, and publication year), research features (research plan, sampling method, data collection tool, settings, sample size, risk of bias, features of the questionnaire, and psychological features), features of the participants (classical group), and result criteria (knowledge and information source). Hoy et al. tool (9) was applied for evaluating the quality of the researches. The decisions were independently made by the researchers based on judgment criteria available for the risk of bias. If there is a disagreement, the *consensus*-decision making approach was applied. The researches were ranked based on the publication date.

Results

1. Study selection

In the initial search conducted in different databases, 437articles were reviewed. From among these articles, as many as 398 were considered as duplicate in the screening process of titles and abstracts. As many as 28 articles were excluded for having irrelevant titles. From among the 11 remaining articles, 3 articles met the eligibility criteria. From the 8 articles that were excluded, 2 articles were reviews, 2 articles were letters to editor, 3 articles did not have a full text, and 1 articles had poor quality that could not be included in the present study(Figure 1).
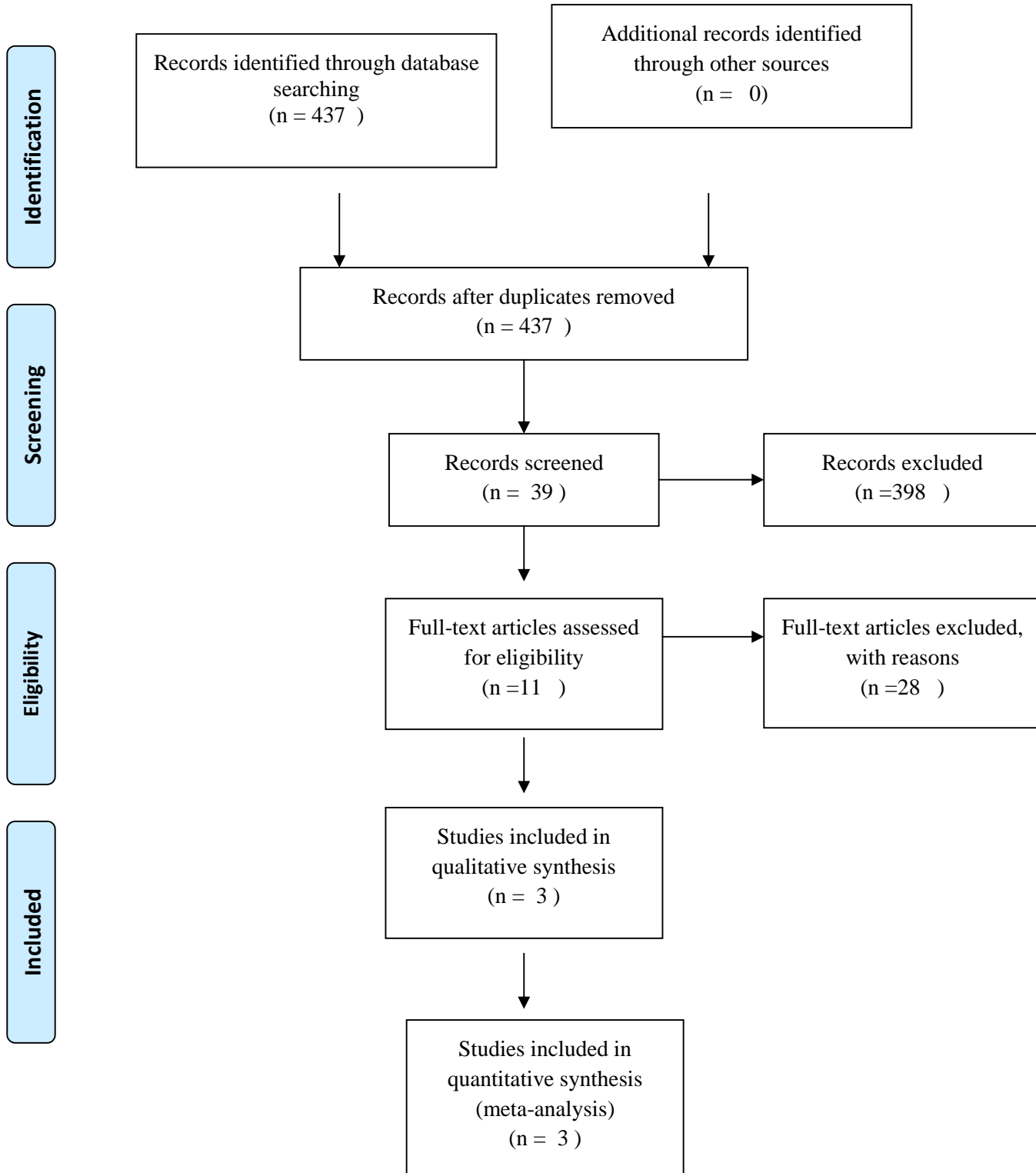
PRISMA 2009 Flow Diagram

Figure 1 : Flow diagram of article selection process

2. Study characteristics

Final studies were conducted on 320 participants; the age group ranged from 18 to 45. All the included studies used a cross-sectional design. The researches were conducted in just 3 provinces (out of 31 provinces). From among 3 studies reviewed 1 belonged to Lorestan,one belonged to Kashan, And the other study was from Oroomiye.

.all of the studies had used SF-36 to evaluate quality of life. The data were collected by conducting questionnaires(n=3)which had a low risk of bias (n=3) (Table 1).

Table 1: Characteristics of final included studies about The comparison of quality of life between normal and high risk pregnant women in Iran

ID	Author	Year	city	N	Type of study	Questioner	Bias
1	Payameni[10]	2009	Aligoodarz-lorestan	120	Cross-sectional	SF-36	low
2	Mirmohammadi[11]	2007	Kashan	100	Cross-sectional	SF-36	low
3	Mohaddesi[12]	2005	oroomiye	100	Cross-sectional	SF-36	low

Table2: The comparison of quality of life between normal and high risk pregnant women

Study	year	city	ES	95% conf Interval		weight
				Low	up	
payameni	2009		1.36	0.096	1.76	33.35
Mirmohammadi	2007		0.65	0.65	1.05	32.59
Mohaddesi	2005		0.26	-0.14	0.065	34.06
Pooled ES	------		0.75	0.52	0.98	100

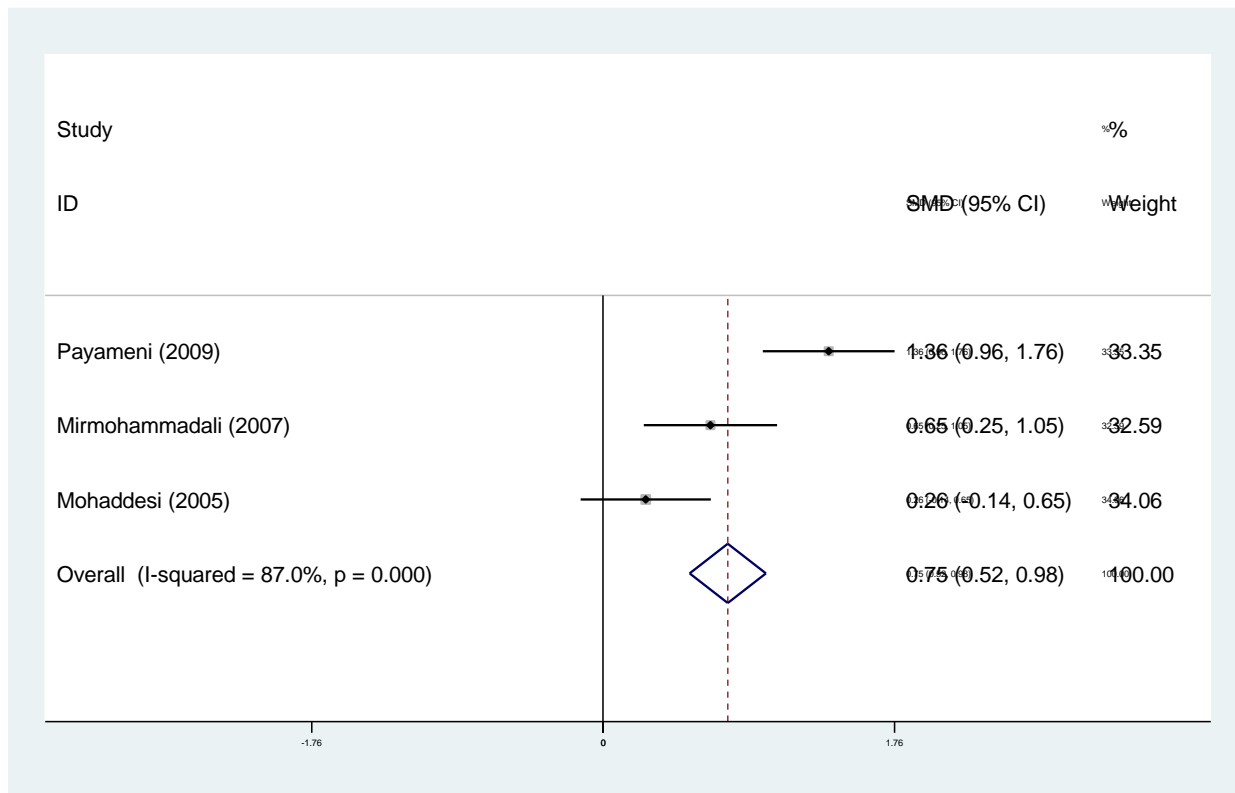| Study		%
ID	SMD (95% CI)	Weight
Payameni (2009)	1.36 (0.96, 1.76)	33.35
Mirmohammadali (2007)	0.65 (0.25, 1.05)	32.59
Mohaddesi (2005)	0.26 (-0.14, 0.65)	34.06
Overall (I-squared = 87.0%, p = 0.000)	0.75 (0.52, 0.98)	100.00

-1.76   0   1.76

Fig.2 .The comparison of quality of life between normal and high risk pregnant women and its 95% interval for the studied cases according to the year and the city where the study was conducted based on the model of the random effects model. The midpoint of each section of the line estimates the% value and the length of the lines showing the 95% confidence interval in each study.

Discussion

Despite the fact that quality of life plays a significant role in the health of pregnant women, little research has been done on the quality of life and the psychological problems associated with pregnancy (13). Limited research has been done in this regard in Iran, and the need for research in this field is becoming more apparent with the acceptance of the fact that people's perception of the quality of life is influenced by their beliefs and culture (12).The concept of quality of life and the factors affecting it have been less addressed in Iran. Understanding these factors helps the health and community staff to organize their activities to improve health and improve quality of life. Midwives, as primary health care practitioners, play an important role in achieving health goals for all, especially pregnant women(14).The findings of the study on the comparison of quality of life in pregnant women with normal and high risk pregnancies showed that the mean score of quality of life in pregnant women with normal pregnancy was higher than that of pregnant women with high risk pregnancies;i.e. women have a natural predisposition to quality of life.The present systematic review was conducted to evaluate the QOL of Iranian women with high-risk pregnancies. Studies have been conducted using various tools. The majority of studies show that QOL levels are more balanced than Iran in women with high-risk pregnancies(15). All studies have also been conducted in urban areas. So, there is also a need for a study in rural areas. The use of multidimensional methods, including increasing women's awareness of the importance of early detection of high-risk pregnancies, especially in rural areas, requires a good level of quality of life. Creating support centers for high-risk pregnant women can increase the quality of life.

Conclusion

Given the fact that quality of life plays a significant role in the health of pregnant women, few studies have been conducted on health-related quality of life in high-risk pregnancies. Life-saving habits in pregnant women with high risk pregnancies are lower than quality of life in women with normal pregnancy. Therefore, identifying high-risk pregnant women is especially important when it comes to prenatal care; thus, efforts are required to improve the quality of life of this group of pregnant women.

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