

Management of back pain during pregnancy

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Abstract: Purpose: To explore the strategies used by Jordanian women to manage back pain during pregnancy. **Methods:** A total of 235 Jordanian women from the three regions of Jordan agreed to participate. Data were collected by means of questionnaire with open ended questions.

Results: A number of strategies were used by women in the sample to manage back pain of pregnancy, mostly were non-pharmacological strategies. These included lifestyle changes such as sleep and rest; put cotton pad under back when sleep; and avoid holding heavy objects, and use of complementary and alternative therapies such as massage with olive oil, Lazkah (adhesive patch), showers back with hot water, and use of Hejamah (cupping therapy). The most useful strategies for them were having rest most of the time and massage with olive oil and showers back with hot water.

Conclusion: The results of the present study can assist midwives and antenatal educators to better understand how they might help women to prepare for and manage back pain during pregnancy. Antenatal educational sessions could use the back pain management strategies used by women in this study as a content and area for discussion

Keywords: pregnancy, back pain and discomfort, complementary therapy

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I. Introduction

Back pain is a common condition in pregnancy; more than one-third of women experience some kind of back pain during pregnancy [1-3]. Back pain during pregnancy can be defined as any type of idiopathic pain, that is not attributed to a specific pathological condition, arising between the 12th rib and the gluteal folds during the course of pregnancy [4]. The pain increases with advancing pregnancy and interferes with work, daily activities and sleep [2]. Back pain during pregnancy is often mild, but some women may suffer severe and even incapacitating pain.

Three mechanisms are described in the literature that may be responsible for back pain during pregnancy: Biochemical/musculoskeletal, hormonal, and vascular [4]. The increase in female hormones, mainly progesterone, relaxes ligaments and joints causing instability and discomfort of joints. This is further complicated by the pregnancy growing and therefore expanding, which causes woman to lean slightly backwards resulting in further strain. The curvature of the spine ends up becoming much more pronounced and trapped nerves, aching muscles and ligaments can result [4, 5].

Research on the management of back pain in pregnancy revealed that pregnant women experience back pain have little or no intervention from their health care providers and that back pain in pregnancy seems to be invisible and forgotten in contemporary antenatal care [6]. As a minor discomfort of pregnancy, back pain exhibit difficulties for the pregnant woman as well as the healthcare providers. Management of the various symptoms demands judicious observations and the ability to individualize therapy. Knowledge of a variety of management options may allow healthcare providers and women to choose the best and suitable treatment approach.

Most studies on the management of back pain during pregnancy had discussed the health care providers' management of this discomfort. Little is known on how women themselves addressed this discomfort during pregnancy. The purpose of this study was to explore strategies used by Jordanian women to alleviate back pain during pregnancy.

II. Methods

Study design and setting

This study had an exploratory descriptive design. The research was carried out at the main Maternal and Child Health Centers located in the three regions of Jordan, southern region, middle region, and north region. These centers are community health resources provide antenatal and postnatal care for women and their

babies. Certified midwives, resident physicians, and obstetricians provided the antenatal and postnatal care for women and their babies.

Sample

All Jordanian women attending maternal and Child Health Centers for treatment who were pregnant at the time of the study or previously had at least one full term pregnancy and could read and write were invited to participate.

Data collection and instrument

Data were collected over two-month period using open-ended questions contained in a study-specific form handed out to all the participants by assistant researchers. The form was written in Arabic and has two parts. In the first part, introductory section about the purposes of study was provided and then women were asked to provide personal background information. In the second part the participants were asked if they have ever suffered from low back pain during pregnancy and to answer the following questions:

- Please list things you have used to alleviate low back pain during your pregnancy.
- Were these ways of dealing with back pain useful or not?

Ethics

The study was approved by the Human Research Committee in the Faculty of Nursing, Mutah University, and the Ministry of Health, Jordan. The needed information and explanations were provided to women by the assistant researchers, and then a written consent for participation was obtained from each woman.

Analysis

Data were analyzed using content analysis, a process of categorization based on prominent themes and patterns expressed in the text [7]. Participants' responses were transcribed verbatim by the researcher. Categories were developed based on the research objectives. Frequency distributions and cross-tabulations were carried out using Statistical Package for the Social Science (SPSS) Version 16 to identify differences in the strategies chosen by women with different characteristics.

III. Results

Characteristics of participants

Two-hundred and ninety (290) women were approached for participation. Two-hundred and thirty five (81%) women agreed and responded over the period of the study. The women's ages ranged from 18 to 54 years. The characteristics of participants are shown in Table 1.

Strategies used by women to manage back pain during pregnancy

Of the 235 women who responded 216 (92%) reported they experienced back pain during pregnancy while only 19 (8 %) of the women did not report any problems. Of the 216 women who experienced back pain during pregnancy 32 (15%) women did nothing to alleviate this discomfort. The remaining 184 (85%) used different strategies to manage this discomfort. These strategies varied from pharmacological treatments prescribed by a doctor and non-pharmacological strategies. Of the 184 women who used different strategies to manage this discomfort 8 (6%) used only pharmacological strategies, 166 (90 %) used non-pharmacological strategies, and 10 (5%) used both. The frequency and percentages of strategies identified by participants in the sample as used to backache during their pregnancies are presented in Table 2.

Non-pharmacological strategies used by women included changes in lifestyle and use of complementary and alternative therapies. One hundred and forty-nine of women in the sample had changed their life styles to manage this discomfort. These changes included rest most of the time (n=63); sleep and rest in the supine (on back) position (n=46); put cotton pad under back when sleep (n= 20); and avoid holding heavy objects. The most useful strategy for them was having rest most of the time.

Of the 176 women who used non-pharmacological strategies, 15% had used complementary and alternative therapies. These included massage with olive oil (n=12), Lazkah (n=6), showers back with hot water (n=6), and use of Hejamah (n=8). The most useful strategy for them was massage with olive oil and showers back with hot water.

Differences in choice of strategies by women with different characteristics

Women in the age group of 30 to 39 years were more likely to change their life styles (84%); and less likely to use medication (1%) to manage this discomfort than the other groups. Women in the age group of 40 years and older were more likely to use complementary and alternatives therapies (16%) and medications (6%) to manage this discomfort than the other groups.

Higher income women were more likely to use complementary and alternative therapies (27%) and less likely to change their life styles (62%) or use medication (2%) to alleviate back pain during pregnancy than women with lower income. Women with diploma education level were more likely to use complementary and alternatives therapies (40%) as strategies to alleviate back pain during pregnancy than the other women. Women with bachelor level were more likely to change their lifestyle (69%) as strategies to alleviate back pain during pregnancy than the other groups.

Women live in the north region were more likely to use complementary and alternative therapies (19%) and less likely to use medication (3%) to manage back pain in pregnancy than women who live in the middle or southern regions of the country. Women living in the south were more likely to change their life styles (85%) to manage back pain during pregnancy than the other groups. Results showed that women who have employment were more likely to use complementary and alternative therapies and medications as strategies to manage back pain during pregnancy than women who were not employed. Strategies chosen by women with different characteristics are shown in Table 3.

IV. Discussion

This is the first study in Jordan designed to explore strategies used by women to manage back pain during pregnancy. The strategies used by a sample of Jordanian women to manage back pain in pregnancy were outlined in this study. The sample was a convenience sample so findings may not be representative for all women in Jordan.

Some of strategies used by this sample of women were similar to strategies suggested and recommended in the literature [2, 5]. The Jordanian women reported using lifestyle and alternative complementary therapies as strategies to provide relief for back pain in pregnancy. They also were using prescribed medication to alleviate this problem.

Lifestyle changes are harmless methods; several clinical trials supporting the efficacy of these methods. Most Jordanian women in this sample as elsewhere, however, find them at least some what useful [2, 5]. The findings showed that the majority of women used 'rest and sleep most of the time' as strategy to alleviate back pain during pregnancy which is a recommended strategy by most studies to deal with this discomfort ([2, 5]. On the other hand, the finding showed that 25% of women used 'sleep and rest on the supine position' this strategy may cause serious complications, such as supine hypotension syndrome, for woman and fetus[8].

In contrast to most studies, finding of this study showed that no one of the participants reported the use of fitness activities or exercises for the management of back pain in pregnancy. The majority of options such as physiotherapy, acupuncture available for women in other countries are not available for almost all women in Jordan. Previous studies indicated that adding pregnancy-specific exercises, physiotherapy or acupuncture to usual prenatal care may relieve back pain more than usual prenatal care alone [2]. There are a numerous exercises that can be done to safely alleviate these symptoms that address stretching and strengthening of involved areas such as walking, swimming, or bicycling [9, 10]. Evidence-based guidelines are recommended to be provided for both women and health professionals as a way of increasing attention to the prevention of unnecessary back pain during pregnancy [6].

The finding showed that 15% of women in the sample had used complementary and alternative therapies. Some of these therapies such as massage with olive oil and showers back with hot water may considered harmless but therapies such as "Hejama" and "Lazka" (adhesive patch) may be unsafe and may cause serious problems for the pregnant woman. Hejama is an Arabic and famous management strategy to treat many diseases including back pain. It involves evacuating air from cups placed on parts of the body, mainly on the back, to suck tissue and stimulate blood flow [11]. More investigation is needed to establish the safety of such therapies in pregnancy.

V. Conclusion And Implications

The findings of this study suggest a number of implications for health professionals. The back pain of pregnancy is not trivial. It may cause considerable disability and distress during and for a variable period after pregnancy. More efforts should be done on the prevention of low back pain. Health care providers and women should understand the underlying issues of low back pain, including appropriate prevention and treatment options to ensure adequate care and proper management of the primary symptoms. The results of the present study can assist midwives and antenatal educators to better understand how they might help women to prepare for and manage back pain during pregnancy. Antenatal educational sessions could use the back pain management strategies used by women in this study as a content and area for discussion.

Further studies are needed to explore Jordanian cultural beliefs and psychosocial determinants related to the management of back pain during pregnancy. Qualitative studies are also needed to explore more issues through individual and/or group-centered interviews. Findings could help health professionals including midwives in advising pregnant women in back pain during pregnancy.

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Table 1. Demographic characteristics of study participants

	N=235	%
Age (years) range (18-54)		
< 30	77	33.0
30-39	95	40.0
≥40	63	27.0
Education level		
≤ High school	105	45.0
Diploma (2years)	45	19.0
≥ Bachelor	85	36.0
Health insurance		
Government	98	42.0
Military	81	35.0
Private	46	20.0
No insurance	10	4.0
Region of residency		
North	38	16.0
Middle	49	21.0
South	148	63.0
work status (woman)		
Employed	115	49.0
Not employed	120	51.0
Monthly income (Jordanian dinar)		
Less than 200	43	18.0
200-399	46	20.0
400-599	68	29.0
600-more	78	33.0

Table 2. Categories of strategies used by women to alleviate back pain during pregnancy

Category	N	%
Pharmacological strategies only	8	6
Non-pharmacological strategies only	166	90
Both pharmacological and non-pharmacological	10	4
Total	184	100

Table 3. Strategies chosen by women with different characteristics (n=184)

	Complementary and alternative therapies	Change life styles	Use medication
Age			
Less than 30	8 (10%)	48 (62%)	3 (4%)
30-39	10 (11%)	80 (84%)	1 (1%)
≥40	10 (16%)	21 (33%)	4 (6%)
Income			
Less than 399	20 (23%)	60 (67%)	3(3%)
400 and more	36 (27%)	82 (62%)	3 (2%)
Level of education			
≤ High school	6(6 %)	69 (67%)	5 (5%)
Diploma	18 (40%)	26 (58%)	1 (2%)
≥ Bachelor	20 (24%)	59(69%)	2(2%)
Region of residency			
North	7 (19 %)	28(78%)	1 (3%)
Middle	2(11%)	14 (74%)	2 (11%)
South	17(15%)	95 (85%)	4 (4%)
Work status			
Employed	22(14%)	128 (80%)	8 (5%)
Not employed	2 (8%)	22 (92%)	0 (0%)

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