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Impact of Tailored Educational Program on Primigravida Anxiety and Knowledge Regarding Minor Discomforts in Upper Egypt

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Abstract

Background: Although minor discomforts are not life-threatening, nevertheless their presence detracts from the mother feeling of comfort and well-being as well as their negligence may lead to serious problems. In many instances, they can be managed by self-care measures or healthful practices ones can do. **Aim:** evaluate the impact of a tailored educational program on primigravida anxiety and knowledge regarding minor discomforts. **Subjects and Methods:** A quasi-experimental design was used with a purposive sample of 50 primigravida pregnant women, suffering from minor disorders of pregnancy attending to the outpatient antenatal care units affiliated to Beni-Suef Public Hospital in Beni-Suef city, Egypt. A structured-knowledge-questionnaire, Zung's-self-rating-anxiety-scale, and pre/post/retained-knowledge-assessment-sheet were used for data collection. **Result:** The majority of the participant women had poor knowledge with a marked increased severity level of self-rating-anxiety-scale regarding to minor discomfort of pregnancy. There were statistically significant relations between primigravida level of knowledge and their self-rating-anxiety-scale after the educational session and at follow up time compared to there before it (p-value <0.05). **Conclusion:** Designing and implementing an educational program about the studied subject indicated a significant effect in a remarkable rising of the primigravida level of knowledge with minimizing their level of anxiety. **Recommendations:** Based on the findings of this study, provision of the educational guidelines of the minor disorders to the antenatal clinics to be distributed to all the women attending to the clinic is of great value which is prepared in simple Arabic language.

Keywords: primigravida, minor discomfort, knowledge, anxiety

1. Introduction

Pregnancy for the first time is a special period in a woman's life characterized by rapid physiological, psychological, and social changes during a relatively short period as a result of hormonal effect and adaptation to the gestational process [1]. If she is not emotionally supported with surrounding family, relatives and friends as well as if she is not provided with enough and suitable information for this period that may predispose in primigravida women to anxiety. Anxiety during pregnancy is a relatively distinct syndrome which is provoked by specific fears and worries. Anxious pregnant women experience both somatic and emotional symptoms, as well, such as muscle pain, gastrointestinal discomfort, palpitation, worry, and insomnia [2]. It has been suggested that high levels of pregnancy-related anxiety may play a role in preterm-birth, postpartum-depression, and caesarean section. Also, it could affect fetal/infant and child development. A variety of issues may provoke anxiety in primigravida women. Among such issues is lack of knowledge concerning minor discomfort, worries about childbirth and health of the baby, quality of care during labor, the extent of husbands' support and involvement in maternal health care, and the level of support from relatives and friends. Most pregnant women complain some degree of minor discomforts [3].

The common pregnancy minor discomforts may be physiological (backache, leg cramps, oedema, constipation, fatigue, nausea and vomiting, sleep disturbance, heartburn, and increased urinary frequency, etc.), or psy-chosocial (anxiousness, mood swing and lack of family support, etc.). Experiences of these changes are varied

among pregnant women. These discomforts aren't serious in themselves, but their presence affects and decrease a woman's feeling of wellbeing and comfort. Pregnancy-related minor discomforts can be managed by proper explanation, simple remedies, and lifestyle pattern modification. Consequently, pregnant women should have basic knowledge of common minor discomforts. Also, they should know how to overcome these discomforts during pregnancy. So that they can avoid the complications related to their minor discomforts of pregnancy and they can maintain their health condition. Providing information about physiology, prevention, and self-care of pregnancy discomforts can assist in relieving certain anxiety and fears related to the maternity care is healthy pregnancy with physically safe and emotionally satisfying outcome for mother, infant, and family [4-5].

The ultimate goal of any pregnancy is the birth of a healthy newborn. Many pregnant women rely on nurses to provide accurate information and compassionate guidance throughout their pregnancy. To respond effectively; nurses must understand not only the minor discomforts but also the self-care practices to relieve them. Nurse can play a major and vital role in providing anticipatory guidance to foster the women's responsibility for self-care practices, helping to clarify misconceptions and correct any misinformation. Educating the pregnant mother to identify threats to safety posed by her lifestyle, cultural, social, behavioral condition and environment and proposing ways to modify them to avoid a negative outcome are important. Moreover, nurses must be aware of the types of health-related activities in which pregnant mothers may be engaged. If the nurses are knowledgeable enough about self-care-practices, appropriate referrals may be made that can help pregnant mothers augment their treatments, cope with symptoms and unpleased side effects from treatments, maintain and promote their health. Also, maternity nurses play a crucial role in the quality of antenatal care improvement, which provides pregnant woman education and support. At the same time, the nurse can provide health promotion & psychosocial services include assessment, health education, counseling & appropriate referral [6-14].

1.1 Significance of the Study

Most of the pregnant women experienced minor discomforts in their normal pregnancies. These minor discomforts may result in physiologic, anatomic, endocrinal/hormonal changes [15-16]. The hormonal changes during pregnancy may play havoc with women's emotions, making them more vulnerable to anxiety. The gestational period is thus a potential stressor and relatively a high-risk period for women with pre-existing many psychological health problems which arise during or soon after pregnancy. Many views of mundane life provoke anxiety, various situations and conditions can increase the frequency and severity of the anxiety and pregnancy can often amplify this anxiety. Some women are most worried about whether their babies are healthy. Anxiety during pregnancy may be associated with a variety of adverse consequences in term of obstetrics complications and pregnancy outcomes [17-19]. Although minor discomforts aren't life-threatening, nevertheless their presence detracts from the mother feeling of comfort and well-being as well as their negligence may lead to serious problems. In many instances, they can be avoided by preventive and self-care measures ones can do.

1.2 Operational Definitions

Minor discomfort was defined by Beischer and Mackay as slightly ailments of pregnancy which lead to lack of comfort and annoying rather than disabling the client [20].

Anxiety: anxiety describes a state of the mind and experience of unpleasant effect which develops depending on environmental stimulants that are perceived by the individuals as being dangerous or threatening when confronted with specific situations, demands or a particular object or event [21-24].

2. Aim of the Study

The current study aimed to evaluate the effect of an educational on women's anxiety and knowledge about pregnancy minor discomforts and their self-intervention among primigravida mothers attending to Ḃeni-Suef general hospital antenatal clinic. This aim will be obtained through the following:

Assess the pregnant women's knowledge regarding pregnancy minor discomforts and their self-intervention.

Assess the level of anxiety among primigravida pregnant women with Zung's-self-rating-anxiety-scale.

Implement a tailored teaching program (TTP) for pregnant women with pregnancy minor discomforts to improve their knowledge and self-management as well and decrease their anxiety.

Evaluate the effectiveness of a tailored teaching program (TTP) on reducing the anxiety and gain in knowledge regarding minor discomforts and their self-intervention among primigravida women.

Find out the associations between women's knowledge scores and anxiety level and general characteristics among primigravida throughout the period of program implementation (pre/post/follow-up).

3. Research Hypothesis

The researchers hypothesized that:

After implementing the program, women's knowledge regarding minor discomforts and their self-intervention will be improved among primigravida women. The mean post-test and retained-test knowledge's scores of pregnant women will be significantly higher than their mean pre-test knowledge's score at a significant level 0.05.

The women's anxiety levels will be decreased or relieved after program implementation. The mean post-test and retained-test of anxiety scores of pregnant women will be significantly less than their mean pre-test anxiety scores at a significant level 0.05.

There will be a significant statistical association between knowledge score and anxiety scores, the higher the knowledge, the lower the anxiety levels, at a significant level 0.05.

There will be a statistically significant association between knowledge scores, socio-demographic variables at the level of significance ($P \leq 0.05$).

4. Methods and Subjects

4.1 Research Design

A quasi-experimental design was used.

4.2 Setting

The data collection for this study took place in the outpatient clinics affiliated to antenatal care units at Ɓeni- Suef Public Hospital in Ɓeni-Suef city, Egypt.

4.3 Participants

A purposive sample of 50 primigravida pregnant women, suffering from minor disorders of pregnancy, was taken from the clients who attended the antenatal clinic in the previously mentioned hospital in Beni-Suef city from April, 1st 2019 to June, 30th 2019 were approached. All participants should fulfill the following inclusion criteria; (1) Primigravida pregnant women with minor discomforts, (2) Have a single fetus, (3) Pregnancy free from any complications such as medical disorders, (4) Have not experienced any psychological disorder or treatment, (5) Welling to participate.

4.4 Assessment Tools

Three tools were used for collecting the relevant data.

Tool (I): A structured knowledge questionnaire:

After a comprehensive reviewing of the academic literature, the researchers designed and developed an interviewing questionnaire sheet to assess women's knowledge through evaluating knowledge about minor discomforts and their self-management for pregnant women attending governmental hospitals in Ɓeni-Suef city. It consists of two sections which describes socio-demographic and family characteristics of respondents containing six items (age, educational level, occupation, residence, family income, and type of family).

Tool (II): Zung's-Self-Rating-Anxiety-Scale: [25]

Standardized-Zung's-Self-Rating-Anxiety-Scale is used to assess the anxiety level. This scale includes 20 questions with a total maximum score of 80. Some questions ask for the information positively (15 positive statements) and others negatively (5 negative statements). But in all cases, the severity of the symptoms is scored from one to four. (1) = none or little of the time answer, (2) = some of the time answer, (3) = a large part of the time answer, (4) = the most or all of the time answer. The total raw score was converted to an anxiety index (100- point scale). Thereby, Anxiety Index = (the raw score/80 total points) *100 OR anxiety index raw = raw score * 1.25. Total scoring of the pregnant women's anxiety index is (100). So < 45 points considered "Normal anxiety", 45 points to 59 point considered "Minimal to Moderate anxiety", 60 points to 74 points considered "Marked to Severe anxiety", and > 74 points to 100 points considered "Extreme anxiety".

Tool (III): Pre-test/post-test/retained-test knowledge assessment sheet:

This was designed to assess the women's knowledge regarding minor discomforts and their self-management. The scoring keys for Knowledge questionnaire of 25 items were with a maximum score of 50. Incorrect answer or don't know get (0), correct answer but wasn't complete get (1) while complete and correct answer get (2).

This sheet was distributed to all participants 3 times; (1) pre-test to assess women's knowledge before implementation of the program. (2) Post-test to assess woman's knowledge immediately after the implementation

of the program. (3) Retained or follow-up test; three months after implementation of the program. Knowledge questionnaire of 50 items was designed by the researchers, on three aspects with a total maximum score of 100 as the following: woman who has ≥75% correct answer (75 points to 100 points) will get "Good" score, woman who has ≥ 50% to < 75% correct answer (50 points to 74 points) will get "Average" score, woman who has < 50 % correct answer (0 point to 49 points) will get "Poor" score,

4.5 Methods and Phases of Data Collection

4.5.1 Validity & Reliability of the Tools

The tools were revised for their content validity by 3 experts in the field. They were senior staff members with experience in obstetrics & gynecological, maternity and mental health nursing. The recommended modifications were made.

The tool is reliable as reliability was assessed by Cronbach's alpha coefficient test. The result of the test was 0.86.

4.5.2 Administrative Approval

Official letter that described the objectives and the aim of the study was directed from the Faculty of Nursing, Ɓeni-Suef University to the directorate of the previously mentioned hospital in Ɓeni-Suef city to obtain the permission to collect the research subject from the hospital under his directorate.

4.5.3 Ethical Considerations

Verbal consent took from each participant before including her in the study. Every woman informed that her participation is totally voluntary; she can withdraw from the study whenever she decided. After taking consent from each participant, the researcher introduced, clarified and explained the purpose and all the objectives of the study. Total confidentiality to obtain information, as well as respect for privacy, was ensured.

4.5.4 Pilot Study

A pilot study was done on five pregnant women. The results of the pilot study revealed the relevance, clarity, and applicability of the study tools. Women involved in the pilot were excluded from the study to avoid contamination of the study sample. The necessarily required modifications were done.

4.5.5 Phases of Fieldwork

The study enrolled 50 pregnant women with minor discomforts. Each participant took, approximately, 30-45 minutes to complete the interview questionnaire. Four phases were adopted to fulfill the purpose of the study as following mentioned: (A) assessment phase, (Ɓ) Planning phase, (C) implementing phase, and (D) evaluation phase. The four phases of data collection took 3 months (from April 1, 2019, to June 30, 2019).

Assessment phase:

The pre-test included; assessment of knowledge and the anxiety level among the pregnant women with minor discomforts through a structured-knowledge-questionnaire and standardized Zung's-self-rating-anxiety-scale. The obtained data during this phase were constituted the baseline for further comparison to evaluate the effect of the implemented educational program. Each woman was interviewed to collect socio-demographic data and general characteristics to assess their baseline knowledge about minor discomforts and self-management.

Planning phase:

After comprehensive reviewing of the relevant academic literature, from journals, magazines, books, bulletins and the electronic media, the researchers developed a tailored educational program that was administered at the end of the pre- test. It contained the definition, causes and self-management.

Implementation Phase:

The design of the program was based on the pre-existing women's knowledge regarding minor discomforts. The program consisted of four sessions, each session lasting 15-30 minutes.

Table 1. Overview of the elements in educational program about minor discomforts of pregnancy

Session	Elements	Objectives	Method
Session no. 1	Opening Ceremony	1. Welcome 2. Presentation program objectives. 3. Enumerate the participants' expectations. 4. Distribution of pre-test.	Discussion.
Session no. 2	knowledge regarding minor discomforts of pregnancy	1. Define minor discomforts. 2. Enumerate the common minor disorders of the pregnancy 3. Identify causes of minor discomforts. 4. List signs and symptoms.	Brain storming Power point. Video.
Session no. 3	knowledge regarding self-management minor discomforts of pregnancy	1. Identify methods self-management to overcome of minor discomforts of pregnancy.	lecture with discussion Power point Questions and answers
Session no. 4	Closing	1. Participant's evaluation for the program. 2. Distribution of Post-test.	Distributing educational booklet Summary & Conclusion. Thanks to all participants.

Evaluation phase:

During this phase, the program was evaluated by using the same previously formatted data collection tools. The immediate evaluation after the program was conducted as a post-test. Another evaluation subsequent follow-up phase (retained-test) was scheduled; three months later.

4.5.6 Data Analysis

Recorded data were analyzed using the statistical package for social sciences, version 20.0 (SPSS Inc., Chicago, Illinois, USA). Quantitative data were presented as mean and standard deviation (Mean ± SD). Qualitative data were presented as frequency and percentage (N & %). The following tests were done:

Chi-square (x^2) test of significance was used in order to compare proportions between qualitative parameters.

Pearson's correlation coefficient (r) test was used to assess the degree of association between two sets of variables

The confidence interval was set to 95.0% and the margin of error accepted was set to 5.0%. So, the P-value was considered significant as the following:

P-value <0.05 was considered significant.

P-value <0.001 was considered as highly significant.

P-value >0.05 was considered insignificant.

5. Results

The data in Table 2 presents that the mean age of the study sample was (25.80 ± 7.48). More than half of them (52.0%) were in the middle age (21-30) years old, 28.0% of them had primary education, 58.0% and 56.0% had no work and rural residence, respectively. The bulky percent of them (78.0%) live in extended family; the majority (90.0%) of them had unsatisfied family income.

Table (3) shows the level of anxiety of the participant women according to all items (20 items) of the Zung's-Self-Rating-Anxiety-Scale. Highly significant differences were found pre and posttest for all measured items (P-value <0.001). Moreover, more than half of the items (30 items) scored either highly significant differences or significant differences between post and retained test (P-value <0.001).

Figure (1) shows the effectiveness of the implemented program on women's anxiety. It is clear that, marked, severe, and extreme anxiety regressed and dissolved immediately after implemented program and continued to the follow-up period (post/retained test), (0.0% & 0.0%, respectively). A statistically significant difference between women's anxiety as regarding pre/post/retained test according to total-self-rating-anxiety-scale was observed (P-value <0.001).

Table (4) presents the knowledge of the participating pregnant women regarding minor discomforts (50 items) throughout the 3 phases of the study implementation (pre/post/retained). Highly significant differences were

found pre and posttest for all measured items (P-value <0.001). Moreover, more than half of the items (34 of 50 items, 60.0%) scored either significant differences between post and retained test (P-value <0.05).

Figure 2 portrays the total knowledge score among the studied pregnant women with minor discomforts throughout the 3 phases of the study implementation (pre/post/retained). It is observed that women's total knowledge improved and progressed immediately after implemented program and continued to the follow-up period (post/retained test). Poor score changed from 82.0% in pre-implementation to 0.0% in post-implementation. Additionally, good score changed from 0.0% in pre-implementation to 80.0% in post-implementation. There was a statistically significant difference between the total-knowledge-score regarding minor disorders of pregnancy of the pre/post-test regarding total knowledge (P-value <0.001).

Table 5 illustrates the relationship between pregnant women's level of anxiety according to Self-Rating-Anxiety-Scale and their socio-demographic data throughout pre/post/retained tests. A statistical significant relationship between the pregnant women level of anxiety and their residences and educational level (P<0.05) in pre-test is declared. However, in post-test the significant relationships are observed between women level of anxiety and their age, education, and family income (P<0.05). Moreover, in retained-test, the significances are observed as the same in the pre-test (age, and education), (P<0.05).

Table 6 illustrates the relationship between pregnant women's knowledge regarding minor disorders of pregnancy and their socio-demographic data throughout pre/post/retained tests. A statistical significant relationship between the pregnant women's knowledge regarding minor disorders of pregnancy and their residences, occupation status (P<0.001), and educational level (P<0.05) in pre-test is observed. However, in post-test, the significant relationships are found between women's knowledge and their residence, and family income (P<0.05), and educational level (P<0.001). Moreover, in retained-test, the significances are observed between women's knowledge and their residence, education, and occupation (P<0.05).

Table 7 shows statistical significant relations between the primigravida pregnant women level of knowledge and their self-rating anxiety scale (P<0.001).

Table 8 presents the correlation between pregnant women total-self-rating-anxiety-scale and total knowledge score. Pearson correlation coefficient test (r) revealed that, the high knowledge score result in low anxiety level score. A statistically significant correlation between the pregnant women total knowledge score and their total self-rating anxiety scale was found (P<0.001).

Table 2. Distribution of pregnant women according to their socio-demographic data (N=50)

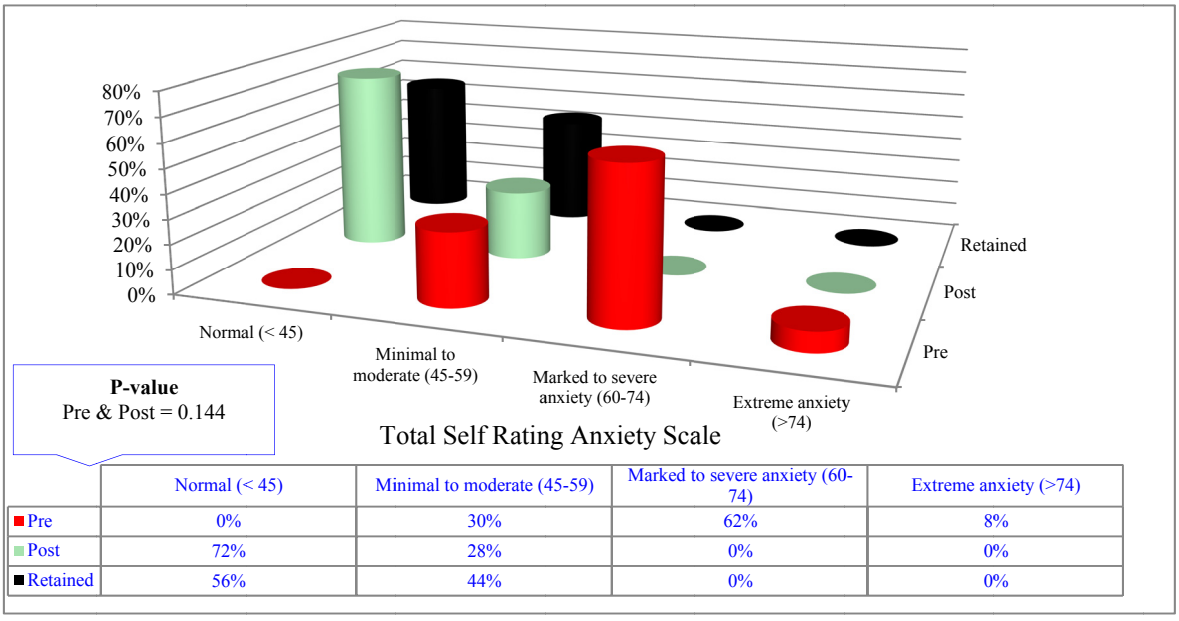
Socio-Demographic Characteristics	No.	%
Age (years)		
a. ≤ 20 - years	10	20
b. 21-30 years	26	52
c. > 30 years	14	28
Mean ± SD	25.80 ± 7.48	
Educational status		
a. Primary	14	28
b. Secondary	19	38
c. Higher secondary	15	30
d. Graduation & above	2	4
Occupational status		
a. House wife	29	58
b. Daily wages	13	26
c. Government work	8	16
Residence:		
a. Urban	22	44
b. Rural	28	56
Monthly income of the family		
a. Unsatisfied (not enough)	45	90
b. Just enough (enough for living only)	5	10
c. Satisfy (enough & can save from it)	0	0
Type of family		
a. Nuclear	11	22
b. Extended	39	78

Table 3. Descriptive statistics for pre, post and retained women's anxiety according self-rating-anxiety-scale (n=50)

Self-rating anxiety scale		Pre		Post		Retained		P-value	
		No.	%	No.	%	No.	%	Pre & Post	Post & Retained
1. I feel more nervous/anxious than usual.	A. None or Little of the time	5	10	22	44	24	48	< 0.001**	0.042*
	B. Some of the time	8	16	27	54	18	36		
	C. A large part of the time	19	38	0	0	6	12		
	D. All or Most of the time	18	36	1	2	2	4		
2. I feel afraid for no reason at all.	A. None or Little of the time	5	10	24	48	18	36	< 0.001**	0.003*
	B. Some of the time	9	18	25	50	19	38		
	C. A large part of the time	23	46	0	0	12	24		
	D. All or Most of the time	13	26	1	2	1	2		
3. I get upset easily or feel panicky.	A. None or Little of the time	2	4	27	54	15	30	< 0.001**	0.027*
	B. Some of the time	15	30	21	42	28	56		
	C. A large part of the time	18	36	2	4	7	14		
	D. All or Most of the time	15	30	0	0	0	0		
4. I feel like I am falling apart and going to pieces.	A. None or Little of the time	16	32	41	82	28	56	< 0.001**	0.018*
	B. Some of the time	21	42	8	16	18	36		
	C. A large part of the time	9	18	1	2	4	8		
	D. All or Most of the time	4	8	0	0	0	0		
5. I feel that everything is all right and nothing bad will happen.	A. None or Little of the time	26	52	22	44	24	48	0.223	0.003*
	B. Some of the time	14	28	9	18	23	46		
	C. A large part of the time	4	8	6	12	2	4		
	D. All or Most of the time	6	12	13	26	1	2		
6. My arms and legs shake and tremble.	A. None or Little of the time	2	4	22	44	32	64	< 0.001**	0.019*
	B. Some of the time	19	38	26	52	13	26		
	C. A large part of the time	19	38	1	2	5	10		
	D. All or Most of the time	10	20	1	2	0	0		
7. I am bothered by headaches, neck and back pains.	A. None or Little of the time	1	2	20	40	33	66	< 0.001**	0.029*
	B. Some of the time	9	18	28	56	15	30		
	C. A large part of the time	21	42	2	4	2	4		
	D. All or Most of the time	19	38	0	0	0	0		
8. I feel weak and get tired easily.	A. None or Little of the time	2	4	25	50	25	50	< 0.001**	0.068
	B. Some of the time	20	40	23	46	15	30		
	C. A large part of the time	9	18	2	4	9	18		
	D. All or Most of the time	19	38	0	0	1	2		
9. I feel calm and can sit still easily.	A. None or Little of the time	30	60	13	26	20	40	< 0.001**	<0.001**
	B. Some of the time	11	22	7	14	19	38		
	C. A large part of the time	2	4	10	20	10	20		
	D. All or Most of the time	7	14	20	40	1	2		
10. I can feel my heart beating fast.	A. None or Little of the time	5	10	28	56	22	44	< 0.001**	0.011*
	B. Some of the time	14	28	21	42	17	34		
	C. A large part of the time	24	48	0	0	10	20		
	D. All or Most of the time	7	14	1	2	1	2		
11. I have fainting spells or feel like it.	A. None or Little of the time	7	14	31	62	35	70	< 0.001**	0.186
	B. Some of the time	20	40	19	38	13	26		
	C. A large part of the time	21	42	0	0	2	4		
	D. All or Most of the time	2	4	0	0	0	0		
12. I can breathe in and out easily.	A. None or Little of the time	13	26	35	70	29	58	< 0.001**	0.509
	B. Some of the time	17	34	14	28	19	38		
	C. A large part of the time	15	30	1	2	1	2		
	D. All or Most of the time	5	10	0	0	1	2		
13. I get feelings of numbness and	A. None or Little of the time	3	6	29	58	31	62	< 0.001**	0.123
	B. Some of the time	17	34	20	40	15	30		

Self-rating anxiety scale		Pre		Post		Retained		P-value	
		No.	%	No.	%	No.	%	Pre & Post	Post & Retained
tingling in my fingers and toes.	C. A large part of the time	18	36	0	0	4	8		
	D. All or Most of the time	12	24	1	2	0	0		
14. I am bothered by stomach aches and indigestion.	A. None or Little of the time	0	0	22	44	22	44	< 0.001**	0.007*
	B. Some of the time	6	12	28	56	18	36		
	C. A large part of the time	19	38	0	0	9	18		
	D. All or Most of the time	25	50	0	0	1	2		
15. I have to empty my bladder often.	A. None or Little of the time	0	0	22	44	27	54	<0.001**	0.314
	B. Some of the time	5	10	27	54	20	40		
	C. A large part of the time	13	26	1	2	1	2		
	D. All or Most of the time	32	64	0	0	2	4		
16. My hands are usually warm and dry.	A. None or Little of the time	2	4	23	46	33	66	<0.001**	0.022*
	B. Some of the time	12	24	25	50	12	24		
	C. A large part of the time	22	44	2	4	5	10		
	D. All or Most of the time	14	28	0	0	0	0		
17. My face gets hot and blushes.	A. None or Little of the time	1	2	32	64	27	54	<0.001**	0.401
	B. Some of the time	22	44	18	36	22	44		
	C. A large part of the time	18	36	0	0	0	0		
	D. All or Most of the time	9	18	0	0	1	2		
18. I fall asleep easily and get a good night's rest.	A. None or Little of the time	28	56	14	28	14	28	< 0.001**	<0.001**
	B. Some of the time	14	28	6	12	28	56		
	C. A large part of the time	4	8	11	22	8	16		
	D. All or Most of the time	4	8	19	38	0	0		
19. I have nightmares.	A. None or Little of the time	33	66	39	78	28	56	< 0.001**	0.052
	B. Some of the time	9	18	10	20	18	36		
	C. A large part of the time	3	6	1	2	4	8		
	D. All or Most of the time	5	10	0	0	0	0		
20. I am bothered by dizzy spells.	A. None or Little of the time	5	10	22	44	23	46	< 0.001**	0.016*
	B. Some of the time	8	16	27	54	17	34		
	C. A large part of the time	19	38	0	0	7	14		
	D. All or Most of the time	18	36	1	2	3	6		

*Using: Chi-square test p-value >0.05 (NS) *p-value <0.05 (S) **p-value <0.001 (HS)*



	Normal (< 45)	Minimal to moderate (45-59)	Marked to severe anxiety (60-74)	Extreme anxiety (>74)
Pre	0%	30%	62%	8%
Post	72%	28%	0%	0%
Retained	56%	44%	0%	0%

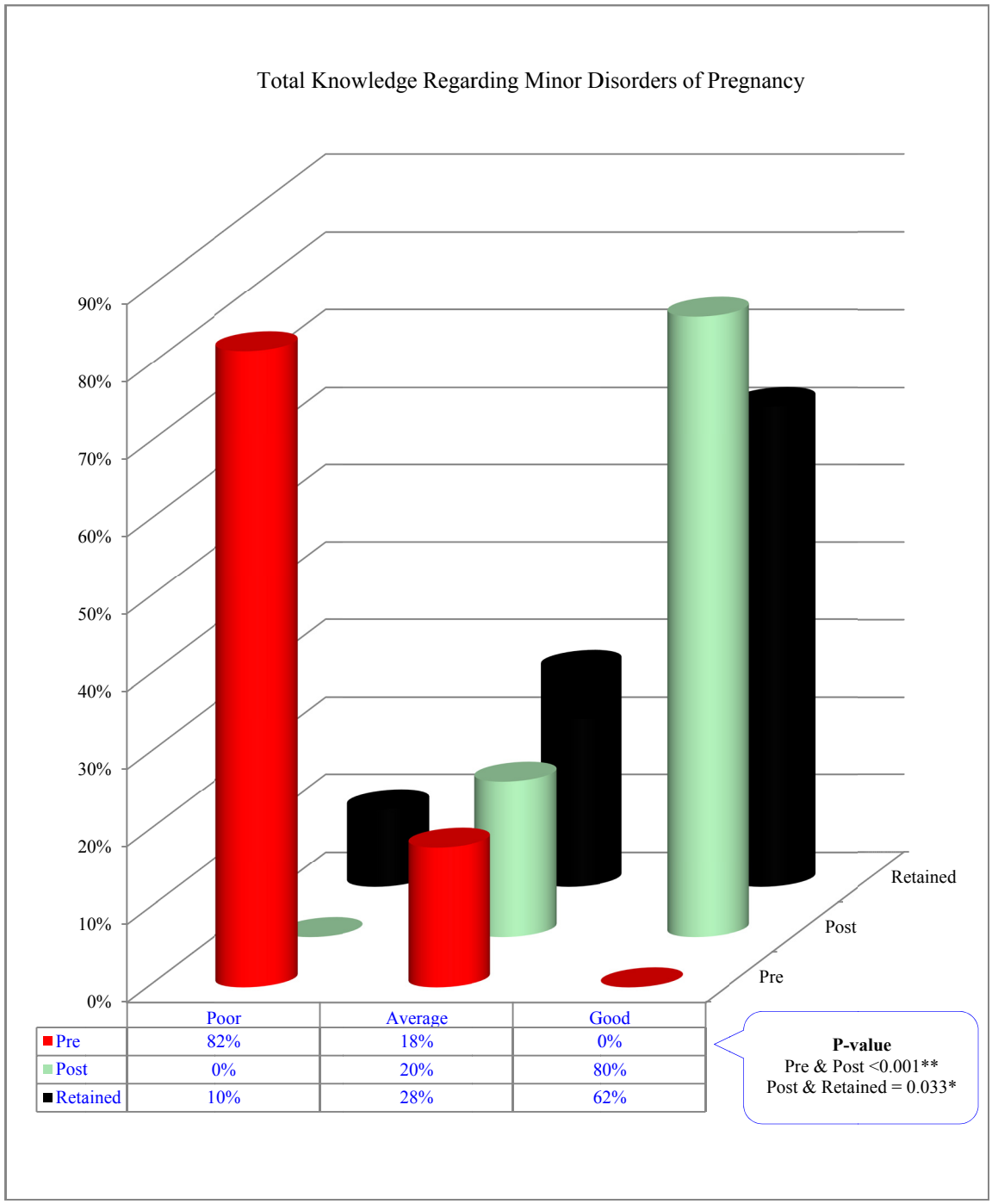
Figure 1. Distribution total self-rating anxiety scale among the studied pregnant women with minor discomforts

Table 4. Descriptive statistics for pre, post and retained knowledge regarding minor disorders of pregnancy

Knowledge Regarding Minor Disorders of Pregnancy		Pre		Post		Retained		P-value	
		No.	%	No.	%	No.	%	Pre/Post	Post/Retained
1. Causes of morning sickness (Nausea & vomiting) during pregnancy	Incorrect answer	36	72	10	20	5	10	< 0.001**	0.263
	Correct answer	14	28	40	80	45	90		
2. Self-Management of morning sickness (Nausea & vomiting) during pregnancy	Incorrect answer	24	48	9	18	5	10	< 0.001**	0.387
	Correct answer	26	52	41	82	45	90		
3. Causes of Ptyalism (excessive salivation) during pregnancy	Incorrect answer	44	88	12	24	5	10	< 0.001**	0.111
	Correct answer	6	12	38	76	45	90		
4. Self-Management of Ptyalism (excessive salivation) during pregnancy	Incorrect answer	40	80	11	22	7	14	< 0.001**	0.434
	Correct answer	10	20	39	78	43	86		
5. Causes of pica during pregnancy	Incorrect answer	46	92	15	30	5	10	< 0.001**	0.024*
	Correct answer	4	8	35	70	45	90		
6. Self-Management of pica during pregnancy	Incorrect answer	30	60	13	26	4	8	< 0.001**	0.033*
	Correct answer	20	40	37	74	46	92		
7. Causes of heart burn during pregnancy	Incorrect answer	14	28	0	0	0	0	< 0.001**	1.000
	Correct answer	36	72	50	100	50	100		
8. Self-Management of heart burn during pregnancy	Incorrect answer	31	62	5	10	3	6	< 0.001**	0.712
	Correct answer	19	38	45	90	47	94		
9. Causes of dyspepsia during pregnancy	Incorrect answer	43	86	13	26	2	4	< 0.001**	0.005*
	Correct answer	7	14	37	74	48	96		
10. Self-Management of dyspepsia during pregnancy	Incorrect answer	41	82	26	52	2	4	< 0.001**	< 0.001**
	Correct answer	9	18	24	48	48	96		
11. Causes of flatulence during pregnancy	Incorrect answer	26	52	9	18	2	4	< 0.001**	0.055
	Correct answer	24	48	41	82	48	96		
12. Self-Management of flatulence during pregnancy	Incorrect answer	42	84	12	24	1	2	< 0.001**	< 0.001**
	Correct answer	8	16	38	76	49	98		
13. Causes of constipation during pregnancy	Incorrect answer	36	72	12	24	2	4	< 0.001**	< 0.001**
	Correct answer	14	28	38	76	48	96		
14. Self-Management of constipation during pregnancy	Incorrect answer	31	62	12	24	1	2	< 0.001**	< 0.001**
	Correct answer	19	38	38	76	49	98		
15. Causes of fecal impaction and melena during pregnancy	Incorrect answer	45	90	15	30	1	2	< 0.001**	< 0.001**
	Correct answer	5	10	35	70	49	98		
16. Self-Management of fecal impaction and melena during pregnancy	Incorrect answer	34	68	9	18	4	8	< 0.001**	0.224
	Correct answer	16	32	41	82	46	92		
17. Causes of hemorrhoids during pregnancy	Incorrect answer	38	76	10	20	5	10	< 0.001**	0.263
	Correct answer	12	24	40	80	45	90		
18. Self-Management of hemorrhoids during pregnancy	Incorrect answer	48	96	37	74	34	68	< 0.001**	0.659
	Correct answer	2	4	13	26	16	32		
19. Causes of round ligament pain during pregnancy	Incorrect answer	48	96	27	54	8	16	< 0.001**	0.002*
	Correct answer	2	4	23	46	42	84		
20. Self-Management of round ligament pain during pregnancy	Incorrect answer	46	92	15	30	8	16	< 0.001**	0.154
	Correct answer	4	8	35	70	42	84		
21. Causes of leucorrhea during pregnancy	Incorrect answer	45	90	17	34	6	12	< 0.001**	0.018*
	Correct answer	5	10	33	66	44	88		
22. Self-Management of leucorrhea during pregnancy	Incorrect answer	43	86	15	30	5	10	< 0.001**	0.024*
	Correct answer	7	14	35	70	45	90		
23. Causes of vulval itching during pregnancy	Incorrect answer	39	78	10	20	3	6	< 0.001**	0.074
	Correct answer	11	22	40	80	47	94		
24. Self-Management of vulval itching during pregnancy	Incorrect answer	35	70	10	20	3	6	< 0.001**	0.074
	Correct answer	15	30	40	80	47	94		
25. Causes of increase frequency of micturition during pregnancy	Incorrect answer	49	98	26	52	5	10	< 0.001**	< 0.001**
	Correct answer	1	2	24	48	45	90		

Knowledge Regarding Minor Disorders of Pregnancy		Pre		Post		Retained		P-value	
		No.	%	No.	%	No.	%	Pre/Post	Post/Retained
26. Self-Management of increase frequency of micturition during pregnancy	Incorrect answer	45	90	18	36	2	4	< 0.001**	< 0.001**
	Correct answer	5	10	32	64	48	96		
27. Causes of dyspnea during pregnancy	Incorrect answer	39	78	7	14	2	4	< 0.001**	0.162
	Correct answer	11	22	43	86	48	96		
28. Self-Management of dyspnea during pregnancy	Incorrect answer	36	72	11	22	2	4	< 0.001**	0.017*
	Correct answer	14	28	39	78	48	96		
29. Causes of fainting during pregnancy	Incorrect answer	12	24	0	0	0	0	< 0.001**	1.000
	Correct answer	38	76	50	100	50	100		
30. Self-Management of fainting during pregnancy	Incorrect answer	13	26	2	4	1	2	< 0.001**	0.624
	Correct answer	37	74	48	96	49	98		
31. Causes of low back ache during pregnancy	Incorrect answer	39	78	11	22	1	2	< 0.001**	0.006*
	Correct answer	11	22	39	78	49	98		
32. Self-Management of low back ache during pregnancy	Incorrect answer	37	74	13	26	1	2	< 0.001**	0.002*
	Correct answer	13	26	37	74	49	98		
33. Causes of leg cramps during pregnancy	Incorrect answer	46	92	19	38	1	2	< 0.001**	< 0.001**
	Correct answer	4	8	31	62	49	98		
34. Self-Management of leg cramps during pregnancy	Incorrect answer	45	90	14	28	8	16	< 0.001**	0.227
	Correct answer	5	10	36	72	42	84		
35. Causes of varicose vain during pregnancy	Incorrect answer	45	90	13	26	0	0	< 0.001**	< 0.001**
	Correct answer	5	10	37	74	50	100		
36. Self-Management of varicose vain during pregnancy	Incorrect answer	36	72	10	20	2	4	< 0.001**	0.031*
	Correct answer	14	28	40	80	48	96		
37. Causes of edema during pregnancy	Incorrect answer	34	68	9	18	1	2	< 0.001**	0.019*
	Correct answer	16	32	41	82	49	98		
38. Self-Management of edema during pregnancy	Incorrect answer	42	84	21	42	10	20	< 0.001**	0.031*
	Correct answer	8	16	29	58	40	80		
39. Causes of breast heaviness and tenderness during pregnancy	Incorrect answer	43	86	14	28	5	10	< 0.001**	0.041*
	Correct answer	7	14	36	72	45	90		
40. Self-Management of breast heaviness and tenderness during pregnancy	Incorrect answer	38	76	13	26	0	0	< 0.001**	< 0.001**
	Correct answer	12	24	37	74	50	100		
41. Causes of Carpal tunnel syndrome (CTS) during pregnancy	Incorrect answer	41	82	14	28	2	4	< 0.001**	0.003*
	Correct answer	9	18	36	72	48	96		
42. Self-Management of Carpal tunnel syndrome (CTS) during pregnancy	Incorrect answer	42	84	16	32	5	10	< 0.001**	0.014*
	Correct answer	8	16	34	68	45	90		
43. Causes of headache during pregnancy	Incorrect answer	46	92	19	38	1	2	< 0.001**	< 0.001**
	Correct answer	4	8	31	62	49	98		
44. Self-Management of headache during pregnancy	Incorrect answer	40	80	13	26	0	0	< 0.001**	< 0.001**
	Correct answer	10	20	37	74	50	100		
45. Causes of sleep disturbance (insomnia) during pregnancy	Incorrect answer	43	86	11	22	2	4	< 0.001**	0.017*
	Correct answer	7	14	39	78	48	96		
46. Self-Management of sleep disturbance (insomnia) during pregnancy	Incorrect answer	48	96	10	20	2	4	< 0.001**	0.031*
	Correct answer	2	4	40	80	48	96		
47. Causes of fatigue during pregnancy	Incorrect answer	45	90	7	14	0	0	< 0.001**	0.019*
	Correct answer	5	10	43	86	50	100		
48. Self-Management of fatigue during pregnancy	Incorrect answer	46	92	27	54	3	6	< 0.001**	< 0.001**
	Correct answer	4	8	23	46	47	94		
49. Causes of nasal stuffiness during pregnancy	Incorrect answer	45	90	10	20	0	0	< 0.001**	0.003*
	Correct answer	5	10	40	80	50	100		
50. Self-Management of nasal stuffiness during pregnancy	Incorrect answer	45	90	15	30	10	20	< 0.001**	0.356
	Correct answer	5	10	35	70	40	80		

*Using: Chi-square test p-value >0.05 (NS) *p-value <0.05 (S) **p-value <0.001 (HS)*



	Poor	Average	Good
Pre	82%	18%	0%
Post	0%	20%	80%
Retained	10%	28%	62%

Figure 2. Distribution total knowledge score among the studied pregnant women with minor discomforts

Table 5. Relation between pregnant women's level of anxiety and their socio-demographic data (n=50)

Socio-Demographic data	level of anxiety according to Self-Rating-Anxiety-Scale													
	Pre						Post				Retained			
	Minimal to moderate (n=15)		Marked to severe (n=31)		Extreme (n=4)		Normal (n=36)		Minimal to moderate (n=14)		Normal (n=28)		Minimal to moderate (n=22)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1. Age (years)														
a. ≤ 20- years	0	0.0%	10	32.3%	0	0.0%	9	25.0%	1	7.1%	8	28.6%	2	9.1%
b. 21-30 years	8	53.3%	15	48.4%	3	75.0%	15	41.7%	11	78.6%	9	32.1%	17	77.3%
c. Above 30 years	7	46.7%	6	19.4%	1	25.0%	12	33.3%	2	14.3%	11	39.3%	3	13.6%
Chi-square test	3.326						9.553				10.058			
p-value	0.053						0.032*				0.007*			
2. Education														
a. Primary	1	6.7%	10	32.3%	3	75.0%	12	33.3%	2	14.3%	8	28.6%	6	27.3%
b. Secondary	4	26.7%	14	45.2%	1	25.0%	16	44.4%	3	21.4%	15	53.6%	4	18.2%
c. Higher secondary	8	53.3%	7	22.6%	0	0.0%	6	16.7%	9	64.3%	3	10.7%	12	54.5%
d.Graduation & above	2	13.3%	0	0.0%	0	0.0%	2	5.6%	0	0.0%	2	7.1%	0	0.0%
Chi-square test	16.056						11.108				13.529			
p-value	0.013*						0.011*				0.004*			
3. Occupation														
a. House wife	9	60.0%	17	54.8%	3	75.0%	23	63.9%	6	42.9%	17	60.7%	12	54.5%
b. Daily wages	3	20.0%	10	32.3%	0	0.0%	7	19.4%	6	42.9%	6	21.4%	7	31.8%
c. Government	3	20.0%	4	12.9%	1	25.0%	6	16.7%	2	14.3%	5	17.9%	3	13.6%
Chi-square test	2.516						2.930				0.729			
p-value	0.642						0.231				0.694			
4. Residence:														
a. Urban	2	13.3%	17	54.8%	3	75.0%	15	41.7%	7	50.0%	10	35.7%	12	54.5%
b. Rural	13	86.7%	14	41.9%	1	25.0%	21	55.6%	7	50.0%	18	64.3%	10	40.9%
Chi-square test	9.943						0.606				3.512			
p-value	0.041*						0.739				0.173			
5. Monthly income														
a. Not enough	15	100.0%	26	83.9%	4	100.0%	34	94.4%	11	78.6%	26	92.9%	19	86.4%
b. Enough for living only	0	0.0%	5	16.1%	0	0.0%	2	5.6%	3	21.4%	2	7.1%	3	13.6%
Chi-square test	3.405						5.822				0.577			
p-value	0.182						0.039*				0.477			
6. Type of family														
a. Nuclear	5	33.3%	6	19.4%	0	0.0%	10	27.8%	1	7.1%	7	25.0%	4	18.2%
b. Extended	10	66.7%	25	80.6%	4	100.0%	26	72.2%	13	92.9%	21	75.0%	18	81.8%
Chi-square test	2.377						2.501				0.334			
p-value	0.305						0.114				0.563			

p-value >0.05 (NS) *p-value <0.05 (S)* **p-value <0.001 (HS)*

Table 6. Relation between pregnant women's knowledge regarding minor disorders of pregnancy and their socio-demographic data (n=50)

Socio-Demographic data	Women's Knowledge Regarding Minor Disorders of Pregnancy													
	Pre				Post				Retained					
	Poor (n=41)		Average (n=9)		Average (n=10)		Good (n=40)		Poor (n=5)		Average (n=14)		Good (n=31)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1. Age (years)														
a. ≤ 20 - years	10	24.4%	0	0.0%	0	0.0%	10	25.0%	0	0.0%	3	21.4%	7	22.6%
b. 21-30 years	18	43.9%	8	88.9%	7	70.0%	19	47.5%	4	80.0%	9	64.3%	13	41.9%
c. Above 30 years	13	31.7%	1	11.1%	3	30.0%	11	27.5%	1	20.0%	2	14.3%	11	35.5%
Chi-square test	6.185				3.297				4.556					
p-value	0.045*				0.192				0.336					
2. Educational status														
a. Primary	14	34.1%	0	0.0%	10	100.0%	4	10.0%	5	100.0%	5	35.7%	4	12.9%
b. Secondary	18	43.9%	1	11.1%	0	0.0%	19	47.5%	0	0.0%	4	28.6%	15	48.4%
c. Higher secondary	9	22.0%	6	66.7%	0	0.0%	15	37.5%	0	0.0%	5	35.7%	10	32.3%
d. Graduation & above	0	0.0%	2	22.2%	0	0.0%	2	5.0%	0	0.0%	0	0.0%	2	6.5%
Chi-square test	19.191				32.143				18.117					
p-value	<0.001**				<0.001**				0.006*					
3. Occupational status														
a. House wife	28	68.3%	1	11.1%	7	70.0%	22	55.0%	3	60.0%	12	85.7%	14	45.2%
b. Daily wages	5	12.2%	8	88.9%	0	0.0%	13	32.5%	0	0.0%	1	7.1%	12	38.7%
c. Government	8	19.5%	0	0.0%	3	30.0%	5	12.5%	2	40.0%	1	7.1%	5	16.1%
Chi-square test	22.612				5.092				10.366					
p-value	<0.001**				0.048*				0.035*					
4. Residence:														
a. Urban	18	43.9%	4	44.4%	7	70.0%	15	37.5%	3	60.0%	8	57.1%	11	35.5%
b. Rural	23	53.7%	5	55.6%	3	20.0%	25	62.5%	2	20.0%	6	42.9%	20	64.5%
Chi-square test	0.225				8.596				12.379					
p-value	0.894				0.014*				0.015*					
5. Monthly income														
a. Not enough	38	92.7%	7	77.8%	9	90.0%	36	90.0%	5	100.0%	12	85.7%	28	90.3%
b. Enough for living only	3	7.3%	2	22.2%	1	10.0%	4	10.0%	0	0.0%	2	14.3%	3	9.7%
Chi-square test	1.822				0.000				0.845					
p-value	0.177				1.000				0.655					
6. Type of family														
a. Nuclear	10	24.4%	1	11.1%	2	20.0%	9	22.5%	2	40.0%	4	28.6%	5	16.1%
b. Extended	31	75.6%	8	88.9%	8	80.0%	31	77.5%	3	60.0%	10	71.4%	26	83.9%
Chi-square test	0.758				0.029				1.919					
p-value	0.384				0.864				0.383					

p-value >0.05 (NS) **p-value <0.05 (S)* ***p-value <0.001 (HS)*

Table 7. Relation between pregnant women self-rating anxiety scale and level of knowledge (n=50)

Knowledge Regarding Minor Disorders of Pregnancy	Self-rating anxiety scale													
	Pre						Post				Retained			
	Minimal to moderate (n = 15)		Marked to severe anxiety (n = 31)		Extreme anxiety (n = 4)		Normal (n = 36)		Minimal to moderate (n = 14)		Normal (n = 28)		Minimal to moderate (n = 22)	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Poor	11	73.3	28	90.3	2	50.0	0	0.0	0	0.0	0	0.0	5	22.7
Average	4	26.7	3	9.7	2	50.0	1	2.8	9	64.3	2	7.1	12	54.5
Good	0	0.0	0	0.0	0	0.0	35	97.2	5	35.7	26	92.9	5	22.7
Chi-square test	2.150						20.145				0.334			
p-value	0.482						< 0.001**				< 0.001**			

**p-value <0.001 (HS)

Table 8. Correlation between pregnant women total-self-rating-anxiety-scale and total knowledge score (n=50)

		Total Knowledge Regarding Minor Disorders of Pregnancy		
		Pre	**Post**	**Retained**
Total-Self-Rating-Anxiety-Scale	r	0.196	0.752	0.639
	p-value	0.472	< 0.001**	< 0.001**

p-value>0.05(NS) ***p-value <0.001 (HS)*

6. Discussion

An extensive amount of studies has shown the adverse outcomes of maternal psychological state. Given the potentially high prevalence of anxiety during pregnancy; Trait anxiety arises in response to a perceived threat. Anxiety is a normal response to threat or danger and part of the usual human experience, but it can become a mental health problem if the response is exaggerated and interferes with daily life [26-28].

During the period of pregnancy, woman will undergo a lot of physical, psychological and hormonal changes but these changes are normal. These changes cause minor discomforts during pregnancy. They are called minor because they aren't life-threatening. A lot of these discomforts may calm-down in this pregnancy progress, but it causes inconvenience and stress to most of the pregnant women. Every system of the body is affected by pregnancy. Providing information about physiology, prevention, and self-care of pregnancy discomforts can assist in relieving certain anxiety and fears related to the maternity care is healthy pregnancy with physically safe and emotionally satisfying outcome for mother, infant, and family [29].

The pregnant women need the knowledge to cope with the experience of pregnancy particularly in primigravida at Upper Egypt where there were different cultural, social and behavioral conditions. Additionally, where it is evidenced that for those who have poor knowledge regarding minor disorders during pregnancy it is to be estimated that most of the discomforts can be controlled through proper education. Consistent health supervision and surveillance are of importance in achieving this outcome [30-32]. Hence, the present study was aimed to evaluate the impact of a tailored educational program on primigravida anxiety and knowledge regarding minor discomforts in Upper Egypt. This aim was significantly achieved because there are statistically significantly improved post educational session and follow up knowledge level and self-rating-anxiety-scale regarding minor discomforts compared to pre-education.

Regarding socio-demographic characteristics, the result of the present study revealed that mean age of the participants was 25.80 ± 7.48, more than one-third (38.0%) of them had secondary education, and more than half were housewives (58.8%) and (56.0%) were from rural residence, respectively. Finally, the findings of the present study discovered that the majority of primigravida included in their extended family with unsatisfied monthly income. These results reflect their sensitivity to the customs and traditions of the place where they live. This nearly agrees with the findings of study conducted at antenatal clinic at Benha university hospital-Egypt to

evaluate the effect of self-care practice guideline on relieving minor discomfort (ailments) among new pregnant woman [33], and also similar to the study done at Maternal Child Health services Menofia Government, Egypt compare between primigravida and multigravida regarding women's self-care practices for management of selected minor discomfort [34].

Concerning the primigravida self-rating-anxiety-scale of pregnancy minor discomforts, the current study exposed that there was a statistically significant difference of the studied sample regarding total self-rating-anxiety-scale after the educational program and at follow up time compared to their self-rating-anxiety-scale before it (P-value <0.001). In the pretest no one of the study sample hadn't anxiety; that anxiety level ranged from minimal level to extreme one. While, in the post and retained test, the data analysis present that most women get free of anxiety and a fewer percentage reported minimal to moderate anxiety. Moreover, no one reported marked, severe, or extreme anxiety. Accordingly, the study hypothesis is accepted. The present study findings indicated that providing the primigravida with educational sessions was significantly relieved the majority of the self-rating-anxiety-scale of pregnancy discomforts post-intervention. Similarly, the study concluded that the structured teaching program was effective in terms of reduction in anxiety and gain knowledge regarding the minor disorders among primigravida [35].

As regards to primigravida knowledge about minor disorders of pregnancy, results of the present study proved that there was statistically significant difference of the studied women's total knowledge regarding minor disorders of pregnancy after educational program and at follow-up time compared to their knowledge before it regarding correct management of pregnancy minor disorders. These findings are in accordance with the study done at obstetrics and gynecology clinic of women's health hospital, Assiut-Egypt that the study group who received the educational guidelines were more knowledgeable and aware of the concept of the antenatal aspects as; diet during pregnancy, food that could prevent constipation, preparation for breastfeeding, weight increment during pregnancy, taking multi-vitamins and iron supplements and time to approach health care provider during pregnancy, care of minor problems, and care of their newborn [35].

According to the findings of the current study, it was revealed that pregnant women exhibited relationship between level of anxiety and their socio-demographic variables, statistically significant between some variables such as age and educational status and monthly income of the family, while no significant between other variables as occupational status, type of family and place of residence and anxiety level. Moreover, there were also statistically significant relations between the primigravida women's post-intervention level of knowledge and their socio-demographic data variables presented in the educational level, occupation and residence place. These findings of the study done at the Egyptian Public Hospital in Beni-Suef demonstrated that primigravida anxiety correlates well with demographic variables include age and educational levels. Primigravida women who are younger and who attain lower education level may find more challenges in adjusting new role and a new set of expectations from themselves and others, and thus they are more likely to manifest anxiety symptoms in early pregnancy. Additionally, those women don't participate in prenatal care due to lack of money, lack of transportation or language barriers [36].

Concerning to the participants women' condition of pre-information, the greater part of participants had poor knowledge with a marked increased severity level of self-rating-anxiety-scale regarding minor discomfort of pregnancy. This appears because the participants' decreased of emotional support, lack of knowledge, different socio-cultural background as well as educational-level. Post-intervention educational session the majority of the participants' women had minimal to moderate level of self-rating-anxiety-scale with an average level of knowledge. This may be due to the utilization of simple and clear language in the educational session, the appropriate teaching method and audiovisual aids and this confirmed by statistically significant correlation between the primigravida women total knowledge score and their total self-rating-anxiety-scale after educational session and at follow up time compared to their before it ($p<0.001$).

Briefly, the tailored educational program has a positive effect on women's knowledge and anxiety associated with pregnancy. It improved their knowledge and regress their anxiety. Pearson correlation coefficient test revealed, that the anxiety level of the subset of expectant mothers whose high mean knowledge score was significantly lower anxiety level than the other of the group of primigravida pregnant women whose low mean knowledge score; Pre-program ($r = 0.196$, $p = 0.472$), Post-program ($r = 0.752$, $p < 0.001$) and retained ($r = 0.639$, $p < 0.001$). This was in agreement with Ahmed (2015) who conduct a quasi-experimental study on the effectiveness of self-instructional-module on knowledge regarding antenatal care for safe motherhood among primigravida and found that a significant progress and improvement in primigravida women's knowledge after the administration of self-instructional-module on safe motherhood [37]. In similar line with Latha et al (2016) who conduct Pre-experimental one group pretest-posttest design on sixty antenatal mothers to examine

Effectiveness of IEC (Information, Education & Communication) package on knowledge regarding minor ailments of pregnancy and its management among antenatal mothers at NMCH, Nellore, A.P. The results showed that the IEC package was effective in increasing the knowledge level of women regarding minor ailments of pregnancy [38]. These findings are also supported by Ahmed (2015) who highly statistically significant improvement knowledge [37]. Finally, findings of the current study hold up the study hypothesis that educational program for primigravida women will improve and get better their self-rating-anxiety-scale and enhance their average level of knowledge about minor discomfort of pregnancy.

7. Limitations of the Study

Taking extra time for completing the sessions due to noise, working hours and the interruption done by the participants' relatives

8. Conclusion

The majority of the participant's women had poor knowledge with a marked increased severity level of self-rating-anxiety-scale regarding minor discomfort of pregnancy. Designing and implementing an educational program about the studied subject indicated a significant effect in a remarkable rising of the primigravida level of knowledge with minimizing their level of anxiety. These findings reflected the willingness of the primigravida women to achieve more information about the issue and their preferences to self-manage the minor disorders instead of taking medications for the sake of the healthy child.

9. Recommendations

Based on the findings of this study, the following recommendations are suggested:

1. Provision of the educational guidelines of the minor disorders to the antenatal clinics to be distributed to all the women attending to the clinic is of great value which is prepared in simple Arabic language.
2. Reinforce instruction about proper management of minor discomforts via leaflet, which must be accurate, clear, and up-to-date and illustrated with pictures whenever possible to help illiterate women.
3. As the nurse and midwife as a key person in antenatal education have a crucial role in this context. She should be able to correct misinformation about harmful practices to relieve minor discomforts and implementing antenatal educational sessions to women in a simple, direct and effective manner in different antenatal settings. So, in-services training programs, refreshing courses, seminars, and conferences should be provided to upgrade nurses practical and intellectual knowledge about minor discomforts during pregnancy and proper measures to relieve it, to help them perform their educational role effectively.
4. Traditional birth attendants already form a considerable part of the basic core of primary health workers for the majority of the rural population in many developing countries. There is great regional variation in the practices of TBAs, some are being beneficial, and others are harmful. Therefore they should be trained and prepared in the field of health education in order to carry out effective health practices.
5. Encourage outreach health education and home visiting programs for picking up pregnant mothers and refer them to antenatal clinics. Also, conducting home visits for women who had dropped out of their antenatal follow-up visits.

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