

Effect of Instructional Guidelines Regarding Minor Discomforts on Reducing Depression, Anxiety, and Stress Level among Primigravida

Nour El Hoda Mostafa Mohamed⁽¹⁾, Safaa Abdelazem Osman Ali⁽²⁾, Nagwa Ahmed Mohamed Souilm⁽³⁾, Faten said Abdelhady Garf⁽⁴⁾, Mona Abd Elhaleem Ebraheem Elagamy⁽⁵⁾

(1) Assistant professor of Obstetrics and Gynecology Nursing, Faculty of Nursing, Sohag University, Egypt

(2) Assistant professor of psychiatric and mental health nursing, Faculty of nursing, Suez Canal University, Egypt

(3) Assistant professor of Psychiatric and Mental Health Nursing, Faculty of Nursing, south valley University, Egypt

4Lecturer of Community Health Nursing, Faculty of Nursing, Beni Suef University, Egypt

5Lecturer of Maternal and neonatal health nursing department, Faculty of nursing, Tanta University, Egypt

Abstract

Hormonal changes during pregnancy lead to minor discomforts in all the women's body as nausea, vomiting, constipation, excessive urination, and fatigue cause anxiety for them. Most of their discomforts can be managed by self-care measures or healthful practices ones can do. **Aim:** This study aimed to evaluate the effect of instructional guidelines regarding minor discomforts on reducing depression, anxiety, and stress level among primigravida. **Subjects and method: Study design:** A quasi-experimental research design was used on a convenient sample of 150 pregnant women from a population of through 386 women in six-months, from June 2019, until December 2019, who attended at the antenatal clinic at Sohag University Hospital, Egypt. **Tools of data collection:** Two tools were utilized to collect the data in this study: (1) A self-administered questionnaire, (2) Depression, Anxiety, and Stress Scale (DASS). **Results:** The present study revealed that there were statistically significant differences between primigravida pregnant women's knowledge about minor discomforts and their anxiety levels before and after the implementation of the instructional guideline. Also, pregnant women's anxiety was severe before the implementation of the guideline while these levels become low after guideline implementation. **Conclusion:** The instructional guidelines were effective in minimizing primigravida pregnant women's anxiety regarding minor discomforts and rising their knowledge about minor discomforts after implementation of the instructional guideline. **Recommendations:** health educational programs about minor discomforts and their self-care practices should be taught to all pregnant women and psychological support to help them to cope and become more resilient during their pregnancy about minor discomforts.

Keywords: Depression, Anxiety, and Stress, Instructional guidelines, Primigravida, Minor discomforts

Introduction:

Pregnant women are experienced rapid physiological and Psychological changes as a result of hormonal effect during pregnancy and cause minor discomforts that may be physiological as backache, leg cramps, fatigue, nausea and vomiting, sleep disturbance, heartburn, and increased urinary frequency or psychosocial as anxiousness and lack of family support. These discomforts can be managed by proper Explanation and lifestyle pattern modification, so that pregnant women should know common minor discomforts. Also, they should know how to relieve these discomforts

during pregnancy to avoid any complications related to their minor discomforts of pregnancy and maintain good health (**Almalik and Mosleh, 2017**).

These discomforts consider not dangerous and can be managed at home. Non-pharmacological management should be considered as a first-line for treatment before going to pharmacological therapy. However, medication or drugs may be used to ensure, maintain the well-being of the pregnant women and adverse effects to the fetus or sometimes pregnant women (**Bhuvaneswari, 2018**).

Anxiety during pregnancy is a relatively distinct syndrome that is provoked by specific

fears, stress and worries. Anxious pregnant women experience both somatic psychological and emotional symptoms, such as muscle pain, gastrointestinal discomfort, palpitation, worry, and insomnia. It has been suggested that high levels of pregnancy-related anxiety may play a role in preterm-birth, postpartum-depression, and cesarean section. Also, it could affect fetal/infant and child development (Deklavaa et al., 2015).

Many factors indicate depression, anxiety, and stress among primigravida and multigravida pregnant women as lack of knowledge concerning minor discomfort, worries about childbirth and health of the baby, quality of care during labor, the husbands' support and involvement in maternal health care, and the level of support from other relatives and friends (Kang et al., 2016).

Providing health education about prevention and self-care of pregnancy discomforts can help in relieving certain depression, anxiety, stress and fears related to maternity care is healthy pregnancy with a physically safe and emotionally satisfying outcome for mother, infant, and family.

Self-care is the development and use of personal health practices and coping skills By using knowledge and beliefs, self-regulation skills and abilities, and social facilitation to achieve outcomes of health during pregnancy, for promoting their health, preventing or limiting disease, and maintains wellbeing. These activities are usually undertaken without professional assistance for selected minor discomforts such as (nausea, heartburn, constipation, increased frequency of micturition, and backache) that didn't require medical therapy. However, they are requiring explanation. These discomforts can be alleviated by preventive measures or healthful self-practices (Ahmed, 2015).

Nurses play a major role in providing counseling and guidance to increase the women's responsibility for self-care practices and helping in identifying misconceptions. Educating the pregnant women to know threats and providing ways to modify them to avoid a negative effect on their lives and their babies. Nurses should be aware of the types of health-related problems as minor discomforts and

activities that help pregnant women in minimizing depression, anxiety and stress. Nurses must be knowledgeable enough about self-care-practices to help pregnant women during referrals, cope with signs and symptoms and side effects from treatments, maintain and promote their health status. Also, maternity nurses play an important role in the quality of antenatal care improvement, which provides pregnant women with education, guidelines and support. At the same time, the community health nurse plays a crucial role and can provide health promotion and psychiatric health nurse in psychosocial services include assessment, counseling, appropriate referral and health education (Hassan et al., 2019).

Significance of the study:

Sufficient emotional support and knowledge for pregnant women regarding minor discomforts may decrease their anxiety level and indirectly achieve better outcomes. Therefore, implementing the instructional guideline for pregnant women will help them acquire adequate knowledge and self-care practices regarding minor discomforts and may relieve their anxiety and stressors. The hormonal changes that occur during pregnancy may affect pregnant women's emotional status, making them more liable to depression and anxiety. Anxiety during pregnancy may be associated with a variety of adverse consequences in terms of obstetrics complications and pregnancy outcomes (Hassan, 2016).

No previous studies were conducted in the faculty of nursing at the obstetrics and gynecological department investigating the effect of instructional guidelines regarding minor discomforts on reducing depression, anxiety, and stress level among primigravida, so this study was conducted to achieve this aim. This study aimed to evaluate the effect of instructional guidelines regarding minor discomforts on reducing depression, anxiety, and stress level among primigravida.

Aim of the study

The study aimed to evaluate the effect of instructional guidelines regarding minor discomforts on reducing depression, anxiety, and stress level among primigravida.

Research hypothesis:

Primigravida who will have instructional guidelines regarding minor discomforts will have low-level of depression, anxiety, and stress regarding minor discomforts and women's knowledge regarding minor discomforts and their self-intervention will be improved among primigravida women after implementation of the instructional guidelines.

Subjects and Methods:**Research design:**

A quasi-experimental research design (pre and post-test) was utilized in this study.

Setting:

The study was conducted at the antenatal outpatient clinic at Sohag University Hospital, Egypt.

Subjects:

A convenient sample included 150 primigravida pregnant women from a population of through 386 women in six-months, suffering from minor discomforts of pregnancy, was taken from the clients who attended the antenatal clinic at Sohag University Hospital from June 2019 until December 2019. All the studied pregnant women meet the following inclusion criteria: Primigravida pregnant women with minor discomforts, free from physical, mental, chronic disease, free from cognitive disease, no history of mental illness, and agree to participate in this study.

Tools of data collection:

Two tools were used to collect the data of the study as the following:

Tool I: A self-administered questionnaire

Was developed by the researchers after reviewing the related literatures and research studies. It included two parts; first part was consisted of demographic data related to age, educational level, occupation, and residence. Second part was included pre/post-knowledge-assessment-sheet to assess pregnant women's knowledge and their self-care practices about minor discomforts. It was designed to assess the primigravida pregnant women's knowledge

regarding minor discomforts and their self-care practices. The scoring keys for the Knowledge questionnaire of 13 items were with a maximum score of 26. The total mothers' knowledge percentages were calculated for known and unknown answers. Each complete correct answer was given (2 marks) and the incomplete correct answer was given (1) and (zero marks) for wrong or unknown answers. For each area of knowledge, the scores of the items were summed up and the total answers were divided by the number of the items, giving a mean score for the knowledge. Then, these scores were converted to a percentage score. Pregnant women's knowledge was considered satisfactory if the percentage score was 60% or more and unsatisfactory if was less than 60%.

The Self-care practices guidelines are distributed for each woman to help them in relieving their minor discomfort. An educational booklet was prepared by the researchers using simple Arabic language; it was concerned with basic knowledge regarding minor discomfort and related physiological state, also related self-practice management measures of different minor discomfort.

Tool II: Depression, Anxiety, and Stress Scale (DASS-21):

The researchers used the Depression, Anxiety, and Stress Scale which was adopted from **Lovibond & Lovibond (1995)**. The scale involved 21 items and consisted of a set of three self-report scales designed to measure the symptoms of the emotional state of depression, anxiety, and stress. Each of the three DASS-21 subscales contains seven items. The depression scale assesses (hopelessness, dysphoria, and devaluation of life, lack of interest/involvement, self-deprecation, anhedonia, and inertia). The anxiety scale measures autonomic arousal, skeletal muscle symptoms, subjective experience of anxious affect, and situational anxiety. The stress scale is sensitive to levels of chronic non-specific arousal. It assesses nervous arousal, difficulty relaxing and being easily upset/agitated, irritable/over-reactive, and impatient. The rating scale responses ranged from (3) applied to me very much or most of the time; (2) applied to me to a considerable degree or a good part of the time;

(1) applied to me some of the time or to some degree; and (zero) did not apply to me at all.

Scoring system for Depression, Anxiety, and Stress Scale (DASS):

The responses were categorized with the cutoff point to categorize stress, anxiety, and depression. Thus, the level of symptoms (extremely severe, severe, moderate, mild, and no symptoms) was as follows:

Levels of DASS symptoms	Depression	Anxiety	Stress
Normal (no symptoms)	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely Severe	28+	20+	34+

Validity and reliability of the tools:

The content validity of the tools and the instructional guideline, its clarity, comprehensiveness, appropriateness, and relevance were reviewed by five experts in obstetrics and gynecological, community health nursing, and psychiatric nursing field before using it with the responsive pregnant women in the study. The Reliability of the tools was assessed through Cronbach's alpha test $\alpha = 86\%$.

Administrative Approval

Official permission was obtained through an issued letter from the Dean of Faculty of Nursing, Sohag University to conduct this study. The aim of the study was explained to obtain permission to collect the research data from the hospital under his directorate.

Ethical considerations:

The purpose of the study was explained to the primigravida pregnant women. The researcher informed the participants that, the study was voluntary, they were allowed to refuse to participate and they had the right to withdraw from the study at any time, without giving any reason. Moreover, they were assured that their information would be confidential and used for research purposes only.

A pilot study

A pilot study was conducted on 10% of the mothers (15 pregnant women). The clarity and testing of the feasibility of the research process needed for modifications were carried out based on the results of the pilot study to develop the final form of the tools. Pregnant women involved in the pilot were excluded

from the study to avoid contamination of the study sample.

Fieldwork:

The study included 150 primigravida pregnant women with minor discomforts. The researchers attended the previously mentioned setting of the study two days / a week from 9 am to 12 pm. Each participant took, approximately, 25-40 minutes to complete the interview questionnaire. This sheet was distributed to all pregnant women 3 times; (1) pre-test to assess pregnant women's knowledge before the implementation of the guidelines. (2) Post-test to assess pregnant women's knowledge immediately after the implementation of the guidelines. (3) Follow-up test; three months after implementation of the guidelines. Four phases were adopted to fulfill the purpose of the study as following mentioned: (A) assessment phase, (B) Planning phase, (C) implementing phase, and (D) evaluation phase. The four phases of data collection took 3 months (from June 2019 to December 2019).

Assessment phase:

The pre-test included; assessment of knowledge and the anxiety level among the primigravida pregnant women with minor discomforts through A self-administered questionnaire, Depression, Anxiety, and Stress Scale (DASS) to measure the pregnant women anxiety, and pre/post-knowledge-assessment-sheet to assess pregnant women' knowledge about minor discomforts. The obtained data during this phase have constituted the baseline for further comparison to evaluate the effect of the implemented instructional guidelines.

Planning phase:

The researchers reviewed the current and past available literature the available textbooks, articles, magazines, and internet search to develop the tools for data collection and prepare the instructional guideline for the primigravida pregnant women regarding minor discomforts.

Implementation Phase:

The design of the instructional guidelines was based on the primigravida pregnant women's knowledge regarding minor discomforts. The instructional guidelines consisted of four sessions, each session lasting 20-30 minutes. It includes four sessions; the first session includes a pre-test and presentation of the program's aim. The second session focused on knowledge about knowledge regarding minor discomforts during pregnancy (meaning, signs and symptoms, types, and causes). The third session focused on knowledge regarding self-care of minor discomforts during pregnancy. The fourth session focused on evaluation for the program and distribution of post-test.

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 follow-up phase was scheduled; three months later.

Statistical analysis:

Data entry and statistical analysis were performed using SPSS for Windows, version 20. Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables and mean and SDs for quantitative variables. Differences between the two means tests (t-test) were used. Chi-square (χ^2) test of significance was used 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. Statistical significance was considered at P-value <0.05 .

Results:

Table (1): Reflected that the studied primigravida pregnant women were mostly (48%) between 21 < 26 years and their mean age (19.10 ± 7.68). Nearly one third (30%) of them had university education, more than half of women (68%) were housewives, majority of them (87%) were rural residence.

Table (2) Revealed that approximately one-third of primigravida pregnant women knew the definition, types, complications, causes, self-care for selected minor discomforts before instructional guidelines' implementation with a mean of 32.5 ± 12.43 compared to a mean of 84.4 ± 7.90 after three months of the instructional guidelines' implementation.

Table (3): Showed that primigravida women's knowledge improved immediately after the implemented program and continued to the follow-up period (post/ follow-up). Poor score changed among primigravida women from 83.0% in pre-implementation to 13.0% in post-implementation. Additionally, good score changed among primigravida from 17.0% in pre-implementation to 83.0% in post-implementation. There was a statistically significant difference between the knowledge score regarding minor disorders of pregnancy of the pre/post-test regarding total knowledge (P-value <0.001).

It was observed from **table (4)** that, the total scores among primigravida pregnant women's depression, anxiety, and stress were severe before the instructional guidelines' implementation and there were highly statistically significant improvements were observed among them regarding depression, anxiety, and stress as regarding pre/post/follow-up test at (P <0.001). Also, it's noted that primigravida pregnant women had severe anxiety levels as regarding pre and post-test.

It was cleared from **the table (5)** that, there was a significant relationship between the studied primigravida pregnant women regarding depression, anxiety, and stress levels and their total level of knowledge pre and post the instructional guidelines' implementation (P < 0.001). It was indicated the effectiveness of instructional guidelines' implementation in minimizing anxiety levels among primigravida pregnant women.

Table (6): Revealed a relationship between demographic characteristics among primigravida and their level of knowledge regarding minor discomforts pre and after the instructional guidelines' implementation. A statistical significant relationship found between the primigravida pregnant women's knowledge regarding minor disorders of pregnancy at ($P<0.001$) regarding pre and post-test.

Table (1): Percentage distribution of studied primigravida pregnant women according to their demographic characteristics (n=150)

Item	Primigravida (150)	
	No.	%
women ' age in years		
18 < 21	30	20.0
21 < 26	72	48.0
26 < 30	36	24.0
30 < 35	12	8.0
Mean ± Standard deviation	19.10 ± 7.68	
- women ' education		
- Illiterate	10	7.0
- Read and write	30	20.0
- Primary education	30	20.0
- Secondary education	45	30.0
- University education	35	23.0
Occupation		
- Employee	48	32.0
- Housewife	102	68.0
Residence		
- Rural	130	87.0
- Urban	20	13.0

Table (7): Revealed that there was a highly statistically significant relationship between the demographic characteristics among primigravida women and the total mean scores of depression, anxiety, and stress regarding minor discomforts pre and after the instructional guidelines' implementation (P value < 0.001)

Table (2): Frequency and Percentage distribution of primigravida pregnant women' knowledge regarding minor discomforts before, immediately after, and after three months of the instructional guidelines' implementation

Minor discomforts	Primigravida						Test of significance	
	Pre		Post		Follow up			
	No	%	No	%	No	%		
1-Definition of minor discomfort:								
- Know	35	23	133	89	127	85	X2= 0.24	
- Don't know	115	77	17	11	23	15	P= 0.09	
2-Types of minor discomfort:								
- Know	40	27	139	93	130	87	X2= 0.68	
- Don't know	110	73	11	7	20	13	P= 0.10	
3-Complications of minor discomfort:								
- Know	73	49	138	92	130	87	X2= 0.53	
- Don't know	77	51	12	8	20	13	P= 0.12	
4- Causes of nausea & vomiting during pregnancy								
- Know	47	31	145	97	127	85	X2= 0.69	
- Don't know	103	69	5	3	23	15	P= 0.08	
5-Self-care of nausea & vomiting during pregnancy								
- Know	35	23	135	90	120	80	X2= 0.64	
- Don't know	115	77	15	10	30	20	P= 0.21	
6-Causes of heartburn during pregnancy								
- Know	58	39	127	85	107	71	X2= 0.64	
- Don't know	92	61	23	15	43	29	P= 0.21	
7-Self-care of heartburn during pregnancy								
- Know	49	33	141	94	125	83	X2= 0.79	
- Don't know	101	67	9	6	25	17	P= 0.09	
8-Causes of constipation during pregnancy:								
- Know	9	6	133	89	120	80	X2= 0.89	
- Don't know	141	94	17	11	30	20	P= 0.07	
9-Self-care of constipation during pregnancy:								
- Know	6	4	145	97	135	90	X2= 0.23	
- Don't know	146	96	5	3	15	10	P= 0.09	
10-Causes of increased frequency of micturition during pregnancy								
- Know	28	19	135	90	130	87	X2= 0.69	
- Don't know	122	81	15	10	20	13	P= 0.10	
11-Self-care of increasing frequency of micturition during pregnancy								
- Know	31	21	133	89	115	77	X2= 0.54	
- Don't know	119	79	17	11	35	23	P= 0.11	
12-Causes of low backache during pregnancy:								
- Know	17	11	142	95	132	88	X2= 0.82	
- Don't know	133	89	8	5	18	12	P= 0.08	
13-Self-care of low backache during pregnancy:								
- Know	35		141	94	130	87	X2= 0.59	
- Don't know	115	23	9	6	20	13	P= 0.10	
Total scores	32.5±124		89.4±6.9		84.4±7.90			

*Significance at 0.001 levels

Table (3): Percentage distribution of knowledge level among primigravida women regarding minor discomforts before, immediately after, and after three months of the instructional guidelines' implementation

knowledge level	Primigravida (n=150)						X2	p-value
	Pre	Post	Follow up					
Unsatisfactory < 60	125	83	19	13	12	8	12.78	<0.001*
Satisfactory > 60	25	17	131	87	138	92	11.79	<0.001*

*p-value <0.001 (highly significant)

Table (4): Total mean scores of anxiety level among primigravida women regarding minor discomforts before and after the instructional guidelines' implementation

DASS	Primigravida			X2	p-value
	Pre	Post	Follow up		
Depression	26.60 ± 3.40	13.50 ± 2.40	12.60 ± 1.40	16.75	<0.001*
Anxiety	19.70 ± 1.13	12.63 ± 1.14	11.83 ± 1.13	13.69	<0.001*
Stress	35.70 ± 3.60	25.40 ± 3.60	23.40 ± 3.70	11.51	<0.001*

*p-value <0.001 (highly significant)

Table (5): Association between among primigravida women' level of anxiety and their level of knowledge regarding minor discomforts before and after the instructional guidelines' implementation

DASS	Pre				Post			
	Satisfactory		Unsatisfactory		Satisfactory		Unsatisfactory	
	No=25	%	No=125	%	No=131	%	No=19	%
Depression	3	10	50	40	26	20	5	25
Anxiety	12	48	56	45	64	49	7	39
Stress	10	42	19	15	41	31	7	36

p-value = <0.001* X2=31.8

**p-value <0.001 (highly significant)

Table (6): Association between demographic characteristics among primigravida women and their level of knowledge regarding minor discomforts pre and after the instructional guidelines' implementation

Items	The total level of Mothers' knowledge							
	Pre				Post			
	Satisfactory		Unsatisfactory		Satisfactory		Unsatisfactory	
Age(years):	No=25	%	No=125	%	No=131	%	No=19	%
-18 < 21	10	40	56	45	52	40	4	20
-21 - 26	8	34	50	40	49	38	9	50
-26 - 30	5	20	13	10	26	20	5	27
-30 ≥35	2	6	6	5	3	2	1	3

p-value = <0.001* X2= 0.963

Educational level:	The total level of Mothers' knowledge							
	Pre				Post			
	Satisfactory		Unsatisfactory		Satisfactory		Unsatisfactory	
Illiterate	No=2	%	No=6	%	No=1	%	No=5	%
Read and write	5	20	10	8	12	40	48	40
Primary education	9	36	36	29	12	10	36	30
Secondary education –	2	8	35	28	3	7	24	20
University education	7	30	38	30	2		7	6

p-value = <0.001* X2= 0.512

Occupation:	The total level of Mothers' knowledge							
	Pre				Post			
	Satisfactory		Unsatisfactory		Satisfactory		Unsatisfactory	
Housewife	No=18	%	No=104	%	No=20	%	No=68	%
Employee	7	28	21	17	10	32	24	20

p-value = <0.004* 0.545

Residence	The total level of Mothers' knowledge							
	Pre				Post			
	Satisfactory		Unsatisfactory		Satisfactory		Unsatisfactory	
Rural	No=19	%	No=76	%	No=22	%	No=73	%
Urban	6	24	39	31	8	27	25	21

p-value = <0.001* X2= 0.617

**p-value <0.001 (highly significant)

Table (7): Association between demographic characteristics among primigravida women and their anxiety level regarding minor discomforts pre and after the instructional guidelines' implementation

Demographic characteristics	DASS								
	Depression			Anxiety			Stress		
	Pre	Post	Follow up	Pre	Post	Follow up	Pre	Post	Follow up
Age(years):									
- 18 < 21	22.55 ± 3.60	11.45 ± 2.60	12.60 ± 1.40	15.55 ± 3.60	10.12 ± 1.60	11.60 ± 1.20	30.40 ± 3.60	22.25 ± 2.60	24.25 ± 3.60
- 21 – 26	24.70 ± 3.60	13.60 ± 1.40	14.60 ± 1.40	16.60 ± 3.60	12.83 ± 1.13	11.12 ± 1.30	32.70 ± 3.60	21.30 ± 3.50	23.30 ± 3.60
- 26 – 30	23.70 ± 3.60	12.60 ± 1.40	13.60 ± 1.40	17.80 ± 1.12	11.83 ± 1.13	13.83 ± 1.12	31.50 ± 2.60	23.40 ± 3.70	25.40 ± 3.70
- 30 ≥35	21.70 ± 3.50	10.60 ± 1.30	10.60 ± 1.20	15.60 ± 2.40	12.60 ± 1.40	12.83 ± 1.11	30.70 ± 3.20	22.70 ± 3.60	22.80 ± 2.40
				p-value <0.001*	x2=20.35				
Educational level:									
- Illiterate	23.70 ± 3.60	13.60 ± 1.40	14.60 ± 1.40	16.80 ± 1.12	12.83 ± 1.13	13.83 ± 1.13	33.70 ± 3.60	22.40 ± 3.70	24.40 ± 3.70
- Read and write	22.55 ± 3.60	11.45 ± 2.60	12.4 ± 2.60	15.55 ± 3.60	10.12 ± 1.60	11.12 ± 1.50	30.45 ± 3.60	20.25 ± 3.20	21.25 ± 3.60
- Primary education	21.60 ± 2.60	12.50 ± 2.60	12.40 ± 2.0	16.60 ± 3.60	10.12 ± 1.60	12.12 ± 1.40	31.50 ± 2.40	21.30 ± 2.90	22.30 ± 3.60
- Secondary education	24.70 ± 3.60	12.60 ± 1.40	13.60 ± 1.40	17.80 ± 1.12	11.83 ± 1.13	13.83 ± 1.4	32.70 ± 3.70	22.40 ± 2.40	23.40 ± 3.70
- University education	21.25 ± 3.60	10.12 ± 1.60	12.12 ± 1.3	14.60 ± 1.40	11.12 ± 1.30	11.10 ± 1.20	29.70 ± 5.60	21.0 ± 2.20	21.30 ± 3.30
				p-value 0.008	x2=95.73				
Occupation:									
- Employee	21.60 ± 2.60	12.50 ± 2.60	13.50 ± 3.60	16.60 ± 3.60	10.12 ± 1.60	11.12 ± 1.50	31.50 ± 2.60	21.30 ± 1.70	22.30 ± 3.60
- Housewife	24.70 ± 3.60	12.60 ± 1.40	14.60 ± 4.40	17.80 ± 1.12	11.83 ± 1.13	12.83 ± 1.14	32.70 ± 3.60	20.40 ± 2.80	23.40 ± 3.70
				p-value 0.004	x2=25.35				
Residence									
- Rural	22.60 ± 3.60	11.50 ± 2.60	13.50 ± 1.60	15.60 ± 3.60	10.12 ± 2.60	11.12 ± 1.40	30.50 ± 3.60	21.30 ± 3.60	23.30 ± 2.40
- Urban	24.70 ± 3.60	12.60 ± 1.40	14.60 ± 2.40	17.80 ± 1.12	11.83 ± 1.13	13.83 ± 1.15	32.70 ± 3.60	23.40 ± 3.70	24.40 ± 2.30
				p-value <0.001*	x2=24.13				

**p-value <0.001 (highly significant)

Discussion:

Minor discomforts can be managed by providing information about physiology, prevention, and self-care of pregnancy and assist in relieving certain depression and anxiety-related to maternity care (**Nazik and Eryilmaz, 2014**). So the pregnant women need the knowledge to help them to cope with the experience of pregnancy regarding minor discomforts among primigravida. Additionally, most of the discomforts can be controlled through proper education and health supervision that are important for achieving the outcome (**Oliveira et al., 2018**). Hence, the current study was aimed to evaluate the effect of instructional guidelines regarding minor discomforts on reducing depression, anxiety and stress level among primigravida. This aim was significantly achieved because there are statistically significantly improved post instructional guidelines implementation and follow up knowledge level and depression, anxiety and stress regarding minor discomforts compared to pre instructional guidelines implementation.

Results of the present study proved that pregnant women were mostly between 21 < 26 years in primigravida. Nearly one third of them had university education in primigravida, more than two-thirds of women were housewives, majority of them were rural residence. These findings agree with **Aziz and Maqsood, (2016)** in Iraq who study "Self - Management of Pregnant Women Regarding Minor Discomforts in Primary Health Care Centers in Erbil City" and showed that the majority of the study sample was between 18-25 years and housewives. Also, similar to the study conducted by **Ayoub & Awed (2018)** 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 who found the same.

Results of the present study proved that There was a statistically significant difference between the knowledge score regarding selected minor discomforts of pregnancy of the pre/post-test and improvement regarding total knowledge (P -value <0.001). This clarifies the

importance of introducing the instructional guidelines regarding selected minor discomforts. These results agree with study done in Egypt by **Elzeblawy et al., (2020)** who found that there was a statistically significant difference in the studied women's total knowledge regarding minor disorders of pregnancy after the educational program and at follow-up time compared to their knowledge before it regarding correct management of pregnancy minor disorders. These findings are following the study done at obstetrics and gynecology clinic of women's health hospital, Assuit-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 (**Abdel et al., 2018**). Also, **AbdElhaliem, et al., (2018)** supported this study and reported in their study that there was a highly significant improvement at the post-intervention phase as compared with their mean score at the pre-intervention phase.

The present study results indicated that primigravida pregnant women's depression, anxiety, and stress' scores were severe before the instructional guidelines' implementation and there were highly statistically significant decreasing were observed among primigravida pregnant women's depression, anxiety, and stress as regarding pre/post/follow-up test at (P <0.001). These results explained that knowledge deficit causes increasing emotional disturbances level and the instructional guidelines had improved their awareness and sufficient knowledge decreased their depression, anxiety, and stress' scores. These findings are following the results of the study done by **Elzeblawy et al., (2020)** who stated that providing the primigravida and multigravida with instructional guidelines was significantly relieved and minimizing the majority of depression, anxiety and stress level during pregnancy minor discomforts post-intervention. Similarly, another study reported that the structured teaching program was effective in reducing anxiety levels and

improves the knowledge regarding minor disorders among pregnant women (**Abdel et al., 2018**). This indicates that they were in need for information and might be attributed to the characteristics of the instructional guidelines which were custom-tailored to real identified needs. In addition to the nurse's ability to communicate information about the minor discomfort in a non-threatening and supportive manner helped to alleviate feelings of depression and anxiety as well as minimize stress.

The findings of the current study indicated that there was a significant relationship between the studied primigravida women's depression, anxiety, and stress levels and their total level of knowledge pre and post the instructional guidelines' implementation ($P < 0.001$). It is indicated the importance and effectiveness of instructional guidelines implementation in minimizing depression, anxiety, and stress levels among primigravida women. Additionally, the educational booklet provided to women in the present study helped in their acquisition and retention of knowledge, and might be an important reason underlying the success of the instructional guidelines.

The findings of the current study revealed that a statistically significant relationship found between demographic characteristics and the primigravida pregnant women's knowledge regarding minor discomforts of pregnancy at ($P < 0.001$). This is due to that demographic characteristics may interfere with gaining knowledge from antenatal clinics as lower education causes anxiety in early pregnancy due to finding challenges in adjusting them in new roles and new expectations from themselves and others. Additionally, they can't participate in antenatal care due to a lack of transportation. This may explain that, primigravida pregnant women with young age had insufficient knowledge about these minor discomforts which causes more anxiety for them and about their fetuses that are at risk from complications of these minor discomforts. In this respect, **Sharma et al., (2020)** in India, **Samarakoon et al., (2020)** in Sri Lanka and **Khalil and Hamad (2019)** in Iraq, found that Knowledge about minor ailments can vary with changing socio demographic profile of antenatal pregnant women. So, knowledge

levels were found to be statistically significant associated with age, education, occupation, monthly income and source of information.

The results of this study revealed that there was a highly statistically significant between the demographic characteristics among primigravida women regarding the total mean scores of depression, anxiety, and stress regarding minor discomforts pre and after the instructional guidelines' implementation. This may be related to that residence of the studied women especially the rural areas is associated with high mean scores of their anxiety before the implementation of the instructional guidelines. This may explain that women in rural areas are different in their culture, values, and beliefs and women in these areas are more stressed because of deficit in participating in antenatal care and difficulty in going to the health center or the hospital in urban areas when any suspected manifestations occurred. Also, a high level of pregnant women's depression and anxiety was associated with their work. This result may be because working may interfere with antenatal care participation. After all, pregnant women did not have time to go to health centers and not able to left their work. Accordingly, the study hypothesis is accepted.

As expected, the instructional guidelines' implementation has a positive effect on pregnant women's knowledge depression, anxiety and stress associated with pregnancy-related to minor discomforts. It improved their knowledge and regress their anxiety. This is in agreement with and in similar line with **Latha and Indira (2016)** who conduct a pre-experimental one-group pretest-posttest design on sixty antenatal mothers to examine the Effectiveness of Information, Education and Communication (IEC) 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. These findings are also supported by **Ahmed (2015)** who reported highly statistically significant improvement in knowledge level.

Finally, the success of the current study instructional guidelines could be attributed to the organization of the sessions, the comfortable setting and schedule that suited the participants' circumstances. These elements have been shown to be crucial in such interventions to achieve their goals as well as utilization of instructional guidelines in women's future pregnancy.

Conclusion:

The implemented instructional guidelines in the present study were significantly effective in improving knowledge and self-management among primigravida regarding selected minor discomforts such as (nausea, heartburn, constipation, increased frequency of micturition, and backache). There was a positive effect of the instructional guidelines on minimizing the anxiety level of the studied pregnant women.

Recommendations:

- 1- Application instructional guidelines at antenatal outpatients' clinics to improve pregnant women knowledge regarding minor discomforts.
- 2- Psychological support should be carried out through routine care to help pregnant women become more adapted and decrease anxiety levels regarding the minor discomforts of pregnancy.
- 3- A well-planned health education programs about minor discomforts should be introduced to pregnant women during antenatal care by maternity and community nurses to improve the quality of antenatal care, which provide the pregnant women education &support.
- 4- Booklets and brochures containing sufficient knowledge about minor discomforts of pregnancy and its management should be printed and kept in antenatal clinics and given to all pregnant women.

References:

AbdElhaliem, S., AbdElhady, R., Ibrahim A., M. (2018): Utilization of self-care practice guideline on relieving minor discomfort (ailments) among new

pregnant woman, IOSR Journal of Nursing and Health Science (IOSR-JNHS) e-ISSN: 2320-1959.p- ISSN: 2320-1940 Volume 7, Issue 1 Ver. I. (Jan.- Feb), PP 07-15 www.iosrjournals.org DOI: 10.9790/1959-0701010715 www.iosrjournals.org.

Abdel, H. A., Makhlof, E., and Mohammed, O. (2018): Effect of Antenatal Educational Guidelines on Mother's Knowledge. IOSR Journal of Nursing and Health Science (IOSR-JNHS), 7(2), 21-26.

Ahmed, M.H. (2015): Effect of intervention Guidelines on self-care practices of pregnant women with urinary tract infection. Life Science Journal; 12(1): 114-124.

Almalik, M., and Mosleh, S. (2017): Pregnant women: What do they need to know during pregnancy? A descriptive study, Women, and Birth: Journal of the Australian College of Midwives, 30(2), 100-106.
<https://doi.org/10.1016/j.wombi.2016.09.001>.

Ayoub, G., & Awed, H. (2018): Comparative Study between Primigravida and Multigravida Regarding Women's Self-Care Practices for Management of Selected Minor Discomforts, Madridge J Case Rep Stud., 2(1), 1000111.
<https://doi.org/10.18689/mjcrs-1000111>

Aziz K.F. and Maqsood S.S. (2016): Self -Management of Pregnant Women Regarding Minor Discomforts in Primary Health Care Centers in Erbil City. Med j Babylon, 13(2):284–293.

Bhuvaneswari K. (2018): Minor ailments of pregnancy and their home remedies. Nightingale Nursing Times December; 6(9): 9-12.

Deklavaa, L., Lubinaa, K., Circenisa, K., Sudrabaa, V., and Millerea, I. (2015): World Conference on Psychology Counseling and Guidance, 14-16 May, Causes of anxiety during pregnancy, Procedia Social and Behavioral Sciences, 205, 623-626; <https://doi.org/10.1016/j.sbspro.2015.09.097>.

- Elzeblawy, H., Fathy, W., M., and Abdullah, M. (2020):** Impact of Tailored Educational Program on Primigravida Anxiety and Knowledge Regarding Minor Discomforts in Upper Egypt, International Journal of Studies in Nursing; Vol. 5, No. 1; ISSN 2424-9653 E-ISSN 2529-7317.
- Hassan, H. (2016):** Infertility profile, psychological ramifications, and reproductive tract infection among infertile women, in northern Upper Egypt. Journal of Nursing Education and Practice, 6(4), 92-108. <https://doi.org/10.5430/jnep.v6n4p92>.
- Hassan, H., El-Sadek, A., and Ali, L. (2019):** Effect of Three Different Nursing Interventions on Intestinal Motility and Women's Satisfaction Post-Cesarean Section Birth. American Journal of Nursing Research, 7(6), 932-941. <https://doi.org/10.12691/ajnr-7-6-4>.
- Indra, V. (2016):** Effectiveness of Self-Instructional Module (SIM) on Knowledge Regarding Selected Aspects of Safe Motherhood among Primigravida Women in Selected Hospitals, Puducherry, International Journal of Nursing Education and Research, 4(3), 2454-2660. <https://doi.org/10.5958/2454-2660.2016.00048.X>.
- Kang, Y., Yao, Y., Dou, J., Guo, X., Li, S., Zhao, C., and Li, B. (2016):** Prevalence and Risk Factors of Maternal Anxiety in Late Pregnancy in China. Int. J. Environ. Res. Public Health, 13(468), 1-11.
- Khalil H. M. and Hamad K. J. (2019):** Knowledge of Minor Discomforts during Pregnancy among Pregnant Women Attending Maternal and Pediatric Hospital in Saran City, Iraq. Polytechnic Journal, 2019, 9(2): 20-24ISSN: 2313-5727<http://journals.epu.edu.iq/index.php/polytechnic> Research Article.
- Latha, P., and Indira, S. (2016):** 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. International Journal of Applied Research, 2(10), 593-596.
- Lovibond, P.F., and Lovibond, S. H. (1995):** The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories, Behavior research and therapy, 33(3), 335-343.
- Nazik, E., and Eryilmaz, G. (2014):** Incidence of pregnancy-related discomforts and management approaches to relieve them among pregnant women. Journal of Clinical Nursing, 23(11), 1736-50. <https://doi.org/10.1111/jocn.12323>.
- Oliveira, S., Fernandes, A., Vasconcelos, E., Ximenes, L., and Leal, L. (2018):** Effect of an educational intervention on pregnancy: a cluster-randomized clinical trial. Acta Paulista de Enfermagem, 31(3), 8-291. <https://doi.org/10.1590/1982-0194201800041>.
- Samarakoon S. K., Mohamed F. F., Wijerathna K. M. and Kisokanth G. (2020):** Knowledge and Practices Regarding Self-Management of Minor Ailments among Pregnant Mothers, Sri Lanka. Journal of Maternal and Child Health (2020), 05(03): 303-312Masters Program in Public Health, Universitas Sebelas MaretResearche-ISSN: 2549-0257303
- Sharma A., Rani R., Nebhinani M., and Singh P. (2020):** Knowledge and practices regarding management of minor ailments of pregnancy among antenatal mothers: a descriptive study from Rajasthan. Int J Community Med Public Health 2020; 7:4010-6.