

# The Effect of Tailored Psycho-Educational Program on Pregnant Women's Anxiety and Knowledge about Self-care Management Regarding Minor Discomforts

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## ABSTRACT

**Background:** Pregnancy is a time of increased vulnerability for the development of anxiety and depression. Minor discomfort is slightly ailments of pregnancy which lead to lack of comfort and annoying rather than disabling the client.

**Aim:** Evaluate the effect of tailored psycho-educational program on pregnant women's anxiety and knowledge about minor discomforts among mothers attending to Benha University hospital antenatal clinic.

**Methods:** A quasi-experimental design was done in September 2019 to November 2019, conducted at obstetrics & gynecological outpatient clinic in Benha university hospital, purposive sample of 59 pregnant women. Researchers used two tools as A structured knowledge questionnaire and Zung's-Self-Rating-Anxiety-Scale.

**Results:** mean  $\pm$  SD of subjects age was 24.32 $\pm$ 5.86, 23.7% is a higher education, 74.6% of them housewives. 11.9% of studied pregnant women had no anxiety pre- program and that results increased to reach 28.8% post program, while the sever anxiety was decreased from 32.2% pre- program to 6.8% post program.

**Conclusion:** There was statistically significant differences of studied pregnant women regarding their knowledge about minor discomfort during pregnancy and also about anxiety pre- and post-program at p value <0.01. Also, highly significant differences of studied pregnant women regarding their Self-care management about minor discomfort during pregnancy and also about anxiety management pre- and post-program at p value <0.01. Finally, tailored psych educational program decreasing anxiety level of pregnant women, while improving their knowledge level.

**Keywords:** Anxiety, Minor Discomforts, Self-care management, Tailored psycho educational.

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## INTRODUCTION

Pregnancy is marked by intense physiological and psychological changes and increased vulnerability to anxiety. Anxiety in pregnancy is associated with previous history of anxiety and depression, prior miscarriage, stillbirth, elective abortion, unplanned and unwanted pregnancy, concerns about the child's health, fear of childbirth and stressful life events such as unemployment or changes in social support. A distinguishing feature of prenatal anxiety is its strong association with fear of pregnancy outcome and childbirth (Adams & Ray, 2019; Yiridomoh et al., 2020).

Pregnancy is the most beautiful and pleasing event in women's life. It is one of the vital events, which needs special care from conception to postnatal period. Pregnancy may be natural, but it does not mean it is problem free, a minor discomfort may escalate and become a serious complication of pregnancy, and symptoms of discomfort due to pregnancy vary from woman to other (Abdel-Haleem et al., 2019).

Minor discomforts are only minor in as much as they are not life threatening, These discomforts are varied according to trimester, As soon as a women become pregnant and experience that fatigue of early pregnancy coupled with nausea and vomiting, frequency of micturition, heartburn, constipation, vaginal discharge, backache, hemorrhoids, leg cramps, edema, excessive salivation, pica, back ache, cramps, frequency of

micturition, leucorrhea, fainting and insomnia varicosities which can affect the daily activities of mother (AlAbedi et al., 2019; Angelina et al., 2020).

Also, Mood changes during pregnancy are common, resulting from a combination of hormonal changes and greater fatigue, as well as normal anxiety over body image, sexuality, finances, marriage roles and impending parenthood. These minor disorders should be treated adequately as they may aggravate and become complicated and affect life threatening. Women are more exposed to anxiety because of significantly more changes in life, Anxiety is an all-too-common condition during pregnancy. Fear of unknown, stress, rootless feeling and everyday issues associated with physical and hormonal changes can much of the time prompt anxiety (Elshatarat et al., 2018; Hailemariam et al., 2020).

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. If mother have adequate knowledge, complications can be prevented (Babure et al., 2020). To achieve and maintain health is increasingly valued as an individual's responsibility. Promotion of health, prevention of illness, early detection of complications taking proper precautionary measures and self-care

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practices are expected to be performed on their own behalf (Bradley et al., 2017).

Information to pregnant woman does not require an equipment or machinery but an efficient educator maternity nurses and the willingness to listen and follow instructions and their awareness makes pregnancy safer to have safe mother and childbirth. So, maternity nurses have a very important role to play in triaging patients, educating patients and managing minor conditions, therefore preventing many hospital admissions. Also, all antenatal mothers should possess adequate knowledge on minor ailments and its home management in order to prevent the complications (Brito de Carvalho & Wanick Sarinho, 2016; El-Khawaga et al., 2019).

## Aim:

Evaluate the effect of tailored psycho-educational program on pregnant women's anxiety and knowledge about minor discomforts among mothers attending to Benha University hospital antenatal clinic, through:

- 1- Assess the pregnant women's knowledge regarding pregnancy minor discomforts and their self-care management.
- 2- Assess the level of anxiety among pregnant women with Zung's-self-rating-anxiety-scale.
- 3- Development of tailored psycho-educational program for pregnant women with pregnancy minor discomforts to improve their knowledge and decrease their anxiety.
- 4- Implement the tailored psycho-educational program for pregnant women with pregnancy minor discomforts to improve their knowledge and decrease their anxiety.
- 5- Evaluate the effectiveness of tailored psycho-educational program on reducing the anxiety and gain in knowledge regarding minor discomforts among pregnant women.

## Research Hypothesis:

H<sup>1</sup>-Post implementing the program, pregnant women's knowledge regarding minor discomforts will be improved during the pregnancy.

H<sup>2</sup>- The women's anxiety levels will be decreased post tailored psycho-educational program implementation.

## SUBJECTS AND METHODS

### Research Design:

A quasi-experimental design was done in September 2019 to November 2019, conducted at obstetrics & gynecological outpatient clinic in Benha university hospital which includes one room divided into diagnostic and examination areas. As well as, waiting area for women admission where the researchers interviewed the recruited women to implement the tailored psycho-educational program. This clinic provides services of obstetrics and gynecological care, family planning counseling and any outpatient procedures for Benha city and rural areas around it.

### Subjects:

A purposive sample of 59 pregnant women, suffering from minor disorders during pregnancy, was taken from the clients who attended the antenatal clinic in the previously mentioned of Benha University Hospital were approached, with excluding criteria as; antenatal women with obstetrical complications, such as: antepartum hemorrhage, pregnancy induced hypertension, hyperemesis gravidarum, and gestational diabetes mellitus.

## Instruments:

**Tool (I):** A structured questionnaire pre-test/post-test knowledge assessment: it was designed by the researchers after a comprehensive reviewing of the academic literature Yiridomoh et al., 2020; Hailemariam et al., (2020). It consists of three parts: First part which describes socio-demographic and obstetric history of respondents containing ten items as age, educational level, occupation, residence, economic status, type of family, housing, number of pregnancies, gestational age, and antenatal follow up. **Second part:** Minor discomfort and anxiety knowledge questionnaire it was designed to assess the women's knowledge regarding minor discomfort and anxiety. It consists of 26 items, with the scoring keys were incorrect answer or don't know get (0), correct answer but incomplete get (1) while complete and correct answer get (2). **Third part:** Self-care management knowledge questionnaire was designed to assess the women's Knowledge regarding self-care management about minor discomfort and anxiety. It consists of 35 items, with the scoring keys were not done/ incorrect done get (0), done but incorrect get (1) while done correct get (2)

The total scoring system was classified as the following: Poor when the total score was less than 60%, Average when the total score was 60% to less than 75%, and Good when total score was 75% to 100%.

## Tool (II): Zung's-Self-Rating-Anxiety-Scale:

Standardized-Zung's-Self-Rating-Anxiety-Scale developed by (Zung, 1971). This scale includes 20 questions. Some questions ask for the information positively (15 positive statements) and others negatively (5 negative statements). The severity of the symptoms is scored from one to four. Where none or little of the time answer = 1, some of the time answer =2, a large part of the time answer = 3, the most or all of the time answer =4, with a total maximum score of 80.

The total scoring system: < 60% Normal anxiety (from 20 to 47points), from 60% to < 75% moderate anxiety (48 to 59 points), and > 75 % marked to severe anxiety (60 points and more).

## Validity & Reliability of the Tools:

The tools were revised for their content validity by 5 experts in the mental health nursing & obstetrics & gynecological, maternity field. The recommended modifications were made. The reliable of the tool assessed by Cronbach's alpha coefficient test was 0.86.

## Ethical Considerations:

All ethical issued was considered before conducting the study. The researchers explained the aim and all the objectives of the current study to the pregnant women. Oral consent gained from each participant before including her in the study. Every woman informed that her participation is totally voluntary; she can withdraw from the study any time. Pregnant women were assured that the data was collected from the questionnaire was remaining confidential and that no personal identification was needed by any means.

## Pilot Study:

A pilot study was done on six (10%) pregnant women to ascertain the clarity, applicability, and relevance of the study tools, after obtaining the results of the pilot study

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required modifications of tools were done. A final format was developed. Pregnant women involved in the pilot were excluded from the study to avoid contamination of the study sample.

### Phases of Fieldwork

The study enrolled 59 pregnant women with minor discomforts. Each participant took, approximately, 20-30 minutes to complete the interview questionnaire. 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.

### Assessment phase:

The pre-test included each woman was interviewed to assessment the anxiety level and knowledge 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 evaluate the effect of the implemented tailored psycho-educational program.

### Planning phase:

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

### Implementation Phase:

After preparation of the program, the researchers started its implementation. The design of the tailored psycho-educational program was based on the pre-existing women's knowledge regarding minor discomforts and their level of anxiety. The program consisted of four sessions, each session lasting 30-45 minutes.

#### 1<sup>st</sup>. session: (introduced session)

The researchers welcome by pregnant women participants, explanation the program aim, identify the participants' expectations, distribution of pre-test, and determine time of the next sessions.

#### 2<sup>nd</sup>. Session: (knowledge regarding minor discomforts and anxiety during pregnancy)

The researchers provide define minor discomforts, enumerate the common minor disorders of the pregnancy,

identify causes of minor discomforts, list signs and symptoms, causes of, levels, and complication of anxiety.

**3<sup>rd</sup>. session:** (knowledge regarding self-care management regarding minor discomforts and anxiety of pregnancy). The researchers provide care of minor problems, diet during pregnancy, food that could prevent constipation, preparation for breast feeding, deep breathing, and relaxation technique)

#### 4<sup>th</sup>. Session: (Self-care management regarding anxiety)

The researchers provide emotional support, and psychological preparation for childbearing birth including self-care and compassion e.g. problem solving skills, interpersonal skills, assertiveness skills. The researchers identify methods self-care management to overcome of minor discomforts and tips to managing the anxiety of pregnancy.

These sessions were repeated to each subgroup of (4-6) women. Different methods of teaching were used such as discussion, brainstorming, demonstration, and re-demonstration. Instructional media included videos contain all content of the of tailored psycho-educational program and educational booklet about minor discomfort self-care management and managing anxiety and mental wellbeing during pregnancy. Which constructed by the researchers in a simple Arabic language after reviewing the academic related literatures were distributed to all recruited women in the study to achieve its objectives.

### Evaluation phase:

During this phase, the immediate evaluation after the program was conducted as a post-test. The researchers' distribution of Post-test was done using the same pre-test tool for the pregnant women to evaluate the effect of the tailored psych-educational program.

### Data Analysis

Data entry was analyzed by using the statistical software package for social sciences, version 20.0. Quantitative data was presented as mean and standard deviation (Mean  $\pm$  SD). Qualitative data were presented as frequency and percentage (N & %). The following tests were done as: Chi-square ( $\chi^2$ ) 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.

## RESULTS

**Table 1:** Frequency distribution of studied pregnant women regarding their characteristics (n=59).

	No	%
<b>Age</b>		
<20	20	33.9
20-<30	27	45.8
30+	12	20.3
<b>Mean <math>\pm</math>SD</b>	24.32 $\pm$ 5.86	
<b>Educational level</b>		
Illiterate	5	8.5
Basic Education	40	67.8
Higher education	14	23.7
<b>Occupation</b>		
Housewife	44	74.6
Employee	15	25.4
<b>Residence</b>		
Rural	40	67.8
Urban	19	32.2

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<b>Economic status</b>		
Not enough	34	57.6
Enough	21	35.6
Enough and save	4	6.8
<b>Type of family</b>		
Nuclear	27	45.8
Extended	32	54.2
<b>Housing</b>		
Owned	30	50.8
Not owned	29	49.2
<b>number of pregnancies</b>		
Primigravida	20	33.9
Multigravida	39	66.1
<b>Gestational age</b>		
1 <sup>st</sup> . trimester	15	25.4
2 <sup>nd</sup> . trimester	34	57.6
3 <sup>rd</sup> trimester	10	16.9
<b>Antenatal follow up</b>		
No	17	28.8
Yes	42	71.2

Table (1): Shows distribution of studied pregnant women regarding demographic characteristics as 45.8% of studied women their age between 20 to less than 30 years with the mean  $\pm$  SD was 24.32 $\pm$ 5.86, 23.7% is a higher education, 74.6% of them housewives, and regarding residence 67.8% of them living in rural areas, and 57.6%

having not enough economic status, on the other hand 45.8% owned housing in a nuclear family. Also, clarified frequency distribution of studied pregnant women regarding obstetric history and showed 33.9% were primigravida, 57.6% in 2nd trimester and 71.2% of them continuing antenatal follow-up.

**Table 2:** Comparison between total knowledge among studied pregnant women pre post program

Total knowledge	Pre		Post		X <sup>2</sup>	p-value
	no	%	no	%		
<b>Knowledge about minor discomfort during pregnancy</b>						
Good	22	37.3	42	71.2	21.55	0.000**
Average	10	16.9	12	20.3		
Poor	27	45.8	5	8.5		
<b>Knowledge about anxiety</b>						
Good	11	18.6	29	49.2	21.11	0.000**
Average	15	25.4	20	33.9		
Poor	33	55.9	10	16.9		

Table (2): showed that there were statistically significant differences of studied pregnant women regarding their knowledge about minor discomfort during pregnancy and also about anxiety pre- and post-program at p value <0.01.

**Table 3:** Comparison between total self-care management among studied pregnant women pre post program

Total self-care management	Pre		Post		X <sup>2</sup>	p-value
	no	%	no	%		
<b>Self-care about minor discomfort during pregnancy</b>						
Satisfactory	24	40.7	52	88.1	28.98	0.000**
Unsatisfactory	35	59.3	7	11.9		
<b>Self-care about anxiety management</b>						
Satisfactory	15	25.4	47	79.7	34.80	0.000**
Unsatisfactory	44	74.6	12	20.3		

Table (3): demonstrated that highly significant differences of studied pregnant women regarding their Self-care management about minor discomfort during pregnancy and also about anxiety management pre- and post-program at p value <0.01.

**Table 4:** comparison between total anxiety scale management among studied pregnant women pre post program

Total anxiety scale	Pre		Post		X <sup>2</sup>	p-value
	no	%	no	%		
No	7	11.9	17	28.8	14.88	0.002**
Mild	17	28.8	23	39.0		
Moderate	16	27.1	15	25.4		
Sever	19	32.2	4	6.8		

Table (4): detected that 11.9% of studied pregnant women had no anxiety pre- program and that results increased to reach 28.8% post program, while the sever

anxiety was decreased from 32.2% pre- program to 6.8% post program. Also, revealed that statistically significant



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differences between pre- and post-program toward anxiety scale at p value <0.01.

**Table 5:** correlation matrix between total knowledge, self-care management and total anxiety scale pre- and post-program

Pre/post program	Total variables	R p-value	Total knowledge	Total self-care managements	Total anxiety scale
Pre- program	Total knowledge	R	1	.994**	.626**
		p-value		.000	.000
	Total self-care managements	R	.994**	1	.626**
		p-value	.000		.000
	Total anxiety scale	R	.626**	.626**	1
		p-value	.000	.000	
Post-program	Total knowledge	R	1	.972**	.201
		p-value		.000	.127
	Total self-care managements	R	.972**	1	.136
		p-value	.000		.306
	Total anxiety scale	R	-.201	-.136	1
		p-value	.127	.306	

Table (5): Clarified that statistically significant correlation between total knowledge, self-care and anxiety level preprogram at p value <0.01. On the other hand, there is not statistically correlation between total knowledge and anxiety level, and also between self-care and anxiety level post program at p value >0.05, where there is highly significant correlation between knowledge and self-care at p value<0.01 at post program.

### DISCUSSION

Although obstetric intervention for physical care of pregnant women has improved dramatically in Egypt over the past several decades, little attention has been paid to emotional care. Hence, the present study was performed to evaluate the effect of a tailored educational program on pregnant women's anxiety and knowledge regarding minor discomforts in Benha University Hospital. This aim was significantly achieved because there are statistically significantly improved post tailored educational session knowledge level, self-care management, and self-rating-anxiety-scale regarding minor discomforts compared to pre-education.

As regard socio-demographic characteristics, the present study shows that more than one third and less than half of the pregnant women (45.8%) were in the age group between 20 to less than 30 years with the mean  $\pm$  SD was  $24.32 \pm 5.86$ , and more than two thirds of them were with basic education (67.8%) and less than one quarter high education (23.7%), but irrespective of their basic and higher education greater part of them were Unemployed (74.6%), this is may be interpret more than half of them (57.6%) having not enough economic status. On the other hand, more than half of pregnant women (54.2% & 50.8%) having extended type of family and having owned house respectively, may be due to more than two thirds of them (67.8%) living in rural areas. Also, about one third of women (33.9%) were primigravida, and more than half of them (57.6%) were in the second trimester. These findings reflect their sensitivity to the traditions and customs of the place where they live.

This findings cohort with the study conducted by (Aldossary et al., 2018) who showed that the majority of the women were in the age group between 20-<30 and high school (36.6%), and greater part of them were housewives (84.1%). As well as the study conducted by (Hassan et al., 2020) who revealed that mean age of the

participants was  $25.80 \pm 7.48$ , 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, discovered that the majority of the sample included in their extended family with unsatisfied monthly income.

Regarding the effectiveness of tailored psycho-educational program on pregnant women, data findings reveal that, comparison between the studied women knowledge regarding minor discomfort and anxiety at pre- and post-intervention phase. The present study finding showed that the more than two thirds of the studied pregnant women (69.5%) had good knowledge post program compared by 23.7% pre-program and only 6.8% of them had poor knowledge post program as compared by about one third of them pre-program (32.2% ) had good level of knowledge, which showed statistically high significant at  $p < 0.000$  level.

This indicated that there was a significant difference between the pretest and posttest knowledge score about minor discomfort and anxiety during pregnancy of pregnant women, The current study results pointed that there was a highly concerning total improved of total knowledge score of the studied pregnant women, at post intervention phase as the majority them had a good level of knowledge, which might be due to the women well understand the knowledge regarding minor discomfort and anxiety, which implies the effectiveness of teaching program. These results were consistent with the study conducted by (Mukamana, 2019) who reported that improved post-test knowledge focused antenatal care for most pregnant mothers.

Similarity, with the study conducted by (Francis et al., 2019) who found in pretest, 36 (60%) antenatal mothers had inadequate knowledge and 24(40%) of them had moderate knowledge and nobody had adequate knowledge on minor ailments. In posttest, 42(70%) antenatal mothers had moderate knowledge, 17(28%) of them had adequate knowledge and 1(2%) had inadequate knowledge regarding minor ailments. With the same side, a result of study conducted by (Nuraini, & Parker, 2005) revealed that the improvement of knowledge in the experimental group was significant about knowledge of healthy pregnancy. Also, supported by (Ohnishi et al., 2005) who also stated that the knowledge scores of the woman attending antenatal program was increased. While, contradicted with (Akhund and Avan, 2010) who

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reported that more than half of antenatal mothers (51.1%) had moderate knowledge on focused antenatal care.

In relation to the self-care management of the studied women, the present study reported high statistically significant at  $p < 0.000$  level differences of studied pregnant women regarding their anxiety and self-care management about minor discomfort during pregnancy, could be the pregnant women need to learn more about the anxiety and knowledge regarding self-care management for pregnant women, in order to self-management and self-practice management. These results supported by (Abdelhaliem et al., 2018) who reported that there was a highly satisfaction level of practice regarding different minor discomfort. It is contradictory to the study conducted by (Thomas, 2009) who reported that 49% of mothers possessed inadequate self-care management of minor disorders in pregnancy.

The present study demonstrated that comparison between total anxiety scale management among studied pregnant women pre post program and showed that 11.9% of studied pregnant women had no anxiety pre-program and that results increased to reach 28.8% post program, while the severe anxiety was decreased from 32.2% pre- program to 6.8% post program. This showed statistically significant at  $p < 0.002$  differences levels between pre- and post-program toward anxiety scale. This might be explained in light of pregnant women experienced anxiety and need to learn about psychological preparation for childbearing birth, problem solving skills, assertiveness training skills, Interpersonal skills, and deep breathing technique with them, this chance provided through tailored psych-educational program.

Briefly, the tailored psycho-educational program has a positive effect on pregnant women's anxiety and knowledge about self-care management regarding minor discomfort associated with pregnancy. This finding was consistent with (Mohamed et al., 2017) who found that pregnant women participating in a based intervention showed statistically significant reduction in anxiety and depression. As well as this finding was supported with (Dimidjian et al., 2016) who found that the mindfulness-based cognitive therapy (MBCT) is a promising method for reducing symptoms of psychological distress and preventing the development of postpartum mood disorders.

This finding might be interpreted as pregnant women were at high risk for anxiety. Where is tailored educational program is considered acceptable intervention of anxiety among pregnant women participated who reported significant reduction in anxiety. This result was in disagreement with (Dayan et al. 2010) found that, there were no significant relations anxiety of pregnant women. This result was in agreement with (Abedian et al. 2015; Podvornik et al., 2015) who found that there were no significant differences between the pregnant women.

In addition, the current study indicates that there is a positive correlation matrix between the pregnant women's total knowledge, self-care and total anxiety scale pre- and post-program, and showed that statistically significant correlation between total knowledge, self-care and anxiety level pre-program. On the other hand, there is not statistically correlation between total knowledge and anxiety level, and also between self-care and anxiety level post program, where there is negative correlation between anxiety levels and total knowledge and total self-care management. This may be due to the utilization of

simple and clear language in the tailored psych-educational session, the appropriate teaching method.

This supported by (Hassan et al., 2020) who confirmed by statistically significant correlation between the mother women total knowledge score and their total self-rating-anxiety-scale after educational session and at follow up time compared to their before it ( $p < 0.001$ ). This was similarity in agreement with (Ahmed, 2015) who found that a significant progress and improvement in primigravida women's knowledge after the administration of self-instructional module on safe motherhood.

In similar line with (Latha & Indira, 2016) who showed that the IEC package was effective in increasing the knowledge level of women regarding minor ailments of pregnancy. As the same line the study result by (Aldossary et al., 2018) who reported there is a positive correlation between the primigravida women's knowledge and practice scores, but it is not statistically significant ( $p = 0.092$ ).

### CONCLUSION

There were statistically significant differences of studied pregnant women regarding their knowledge about minor discomfort during pregnancy and also about anxiety pre- and post-program at  $p$  value  $< 0.01$ . Also, highly significant differences of studied pregnant women regarding their Self-care management about minor discomfort during pregnancy and also about anxiety management pre- and post-program at  $p$  value  $< 0.01$ . Finally, tailored psych educational program decreasing anxiety level of pregnant women, while improving their knowledge level

### RECOMMENDATION

Conducted further research to assess predisposing factors affecting women anxiety related minor discomfort. Provision of the educational guidelines of the minor disorders to the pregnant women at antenatal clinics and reinforce instruction about proper management of minor discomforts. Provide training program for nurses at antenatal clinic about minor disorder and how to deal with pregnant women with anxiety level at this stage.

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