

Knowledge and Attitude of Pregnant Women Regarding Danger Clinical Features of Pregnancy

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Abstract

Background: Women who are pregnant experience warning signs and symptoms known as danger clinical features.

Aim: To assess knowledge and attitude of pregnant women regarding danger clinical features of pregnancy.

Design of the research: the research was conducted using descriptive research design. **Setting:** The research was carried out at Minia maternity and children university hospital, Minia governorate, Egypt. **Subjects:** A representative sample from the total number of pregnant women who visit Antenatal care clinics in maternity and children university hospital monthly which constituted (306) case. **Tool:** Tool I: A structured interview questionnaire (Socio Demographic Data), Tool II: Structured questionnaire on women's knowledge regarding danger clinical features of pregnancy, Tool III: Structured questionnaire on women's attitude toward danger clinical features during pregnancy (Likert scale). **Results:** pregnant women had low level of knowledge regarding danger clinical features with (56.5%). The highest percentage regarding pregnant women knowledge about danger clinical features was for items "sudden gush of fluid before labor, loss of fetal movement, vaginal bleeding, oliguria/anuria, premature onset of contraction & severe headache" with (62.7%, 42.5%, 40.5%, 38.6%, 34.6%, &32.7% consequently). Pregnant women had positive attitude toward danger clinical features with (89.5%). **Conclusion:** There was highly statistical significant relationship between pregnant women's knowledge level and their attitude toward danger clinical features of pregnancy. **Recommendations:** Establishing antenatal programs to educate all expectant mothers about the clinical dangers of pregnancy and when it is best to see a doctor.

Key words: Attitude, Danger clinical features, Knowledge, Pregnant women.

Introduction

According social and medical perspective, pregnancy is an exciting occurrence. Pregnant women should therefore get additional consideration and care from their family, community, and medical professionals. Pregnant women receive specialized treatment from medical specialists during pregnancy known as antenatal care (ANC) (Miguez, & Vázquez, 2021). The major goals of ANC are the preservation of the mother's and her fetus's health during pregnancy, early detection of any danger indicators, and appropriate management. Consequently, prevent complications from arising, and reduce mother and newborn morbidity and death (Tola, et al., 2021, Kebede, et al., 2020).

Women experience warning signs and symptoms known as danger clinical features during pregnancy. It is crucial to talk about these warning signs with women in order to rule out significant consequences and start treatment right away (Shamanewadi et al., 2020). Vaginal bleeding, convulsions, elevated of body temperature, severe abdominal pain, severe pain in the head, blurred vision, absence movements of the fetus, fluid gushing from the vagina, and foul-smelling vaginal discharge are the more common clinical signs of danger during pregnancy that can elevate the incidence of maternal mortality (Galle, et al., 2020).

Lack of awareness among mothers regarding danger features of pregnancy and late detection of these signs can result in a variety of negative outcomes, such as illness or death of the mother (for example, severe bleeding can cause anemia or death of the mother), infection of the fetus through premature membrane rupture, amniotic fluid leakage from the vagina, which can result in fetal or neonatal morbidity and mortality, and early pregnancy termination). Fever or maternal hypertension can increase the number of neonatal deaths or

premature births that could ultimately result in death (Lemma, 2020).

Understanding the clinical signs and symptoms that can be dangerous during pregnancy is a crucial first step in accepting a prompt and appropriate referral for obstetric and infant care. Raising women's knowledge of the potentially dangerous clinical characteristics of pregnancy improves mothers' willingness to seek medical attention, which is essential for healthy motherhood (Jungari, 2020). Communities and people should be equipped with the knowledge and skills necessary to not only detect the dangers connected with pregnancy but also to respond swiftly and effectively when these warning signals appear (Nigusie, et al., 2019).

Therefore, prenatal care should be prioritized by nurses and other experts in order to discover dangerous clinical signs as soon as feasible. Pregnant women in follow-up dynamics are watchful for a reclassification of hazards at each appointment. By utilizing a variety of techniques, including physical fitness testing, general physical examinations, obstetric examinations, as well as educational activities and nursing counseling tailored specifically for a woman, in order to suit her individual needs. Additionally, they obtain this amount of consultations through home visits, primary network consultations, and the use of technical and professional resources (Chawla,etal.,2020).

Significance of the Study

Improving maternal health was one of the eight Millennium Development Goals (MDGs). To improve maternal health, the MDG No. 5 set a goal of reducing the maternal mortality rate (MMR) by 75% between 1990 and 2015. Goal No. 3 of the Goals for Sustainable Development is

aimed to reduce maternal death to seventy percent by 2030 (good health and wellbeing). Due to pregnancy-related or childbirth-related issues, 800 women worldwide die every day, making maternal mortality a significant public health concern (UNFPA, 2018).

With 1400 mothers and fifty percent of their newborns dying each year from pregnancy and delivery problems, Egypt still has a high maternal mortality rate. Lack of identifying risk clinical symptoms during pregnancy is one of the causes contributing to treatment delays and rising maternal mortality (Aziz, El-Deen & Allithy, 2020).

Women engage in a variety of behaviors toward danger clinical features including seeking medical attention. But on the other side, many pregnant women could prefer using conventional treatments and adhering to cultural customs (Zaki & Fouad, 2021).

Pregnant women's overall knowledge score of danger signals was inadequate for 57.9% of them, according to a study by Zaki and Fouad (2021), Mansoura University, which assessed pregnant women's knowledge and practices of pregnancy danger symptoms. While only 12.8% of them were good, and 29.3% were only fair.

So, it is crucial to identify knowledge and attitude of pregnant women regarding danger clinical features of pregnancy

Aim of the research

Assess knowledge and attitude of pregnant women regarding danger clinical features of pregnancy

Research questions

1. What is the level of pregnant women's knowledge regarding danger clinical features during pregnancy?
2. What is the pregnant women's attitude toward danger clinical features during pregnancy?
3. Is there a relation between pregnant women's knowledge and attitude regarding danger clinical features during pregnancy?

Subjects and Method

Design of the research

To fulfillment the goal of the current research, a descriptive research design was used.

Setting of the research

The research was done in Minia Governorate's Antenatal Care Clinics at the Minia Maternity and Children University Hospital.

Sample of the research

A representative sample from the total number of pregnant women who visit Antenatal care clinics in maternity and children university hospital monthly which estimated to be (1500) case, The sample size = (306) case . The sample size was calculated by using the Raso Soft program and calculated as:

$$x = Z(c/100)^2 r(100-r)$$

$$n = N x / ((N-1)E^2 + x)$$

$$E = \text{Sqrt}[(N-n)x / n(N-1)]$$

Tools for Data Collection

The research data was collected by using three tools:

These tools were developed by the researchers after reviewing the related literatures (Zaki & Fouad, 2021, Abdurashidet al., 2018, Ogu & Orazulike, 2017)

Tool (I): A structured interview questionnaire (Socio Demographic Data)

- It was used to collect data about pregnant women and encompass item such as: age, qualifications, place of residence, job, and family income.

Tool II: Structured questionnaire on women's knowledge regarding danger clinical features of pregnancy. (Yes- No response)

This part was consisted of (18 items) of danger clinical features as, bleeding, high fever, severe headache, severe abdominal pain, etc. that may occur during pregnancy. It reflected whether the pregnant women consider these clinical features as dangerous or not, it was measured by using (Yes-No) responses.

The scoring system was ranged from 0 – 18.

- Low level of knowledge about danger clinical features (< or equal 5)
- Moderate level of knowledge about danger clinical features (6-11)
- High level of knowledge about danger clinical features (> or equal 12)

Tool III: Structured questionnaire on women's attitude toward danger clinical features during pregnancy.(Likert scale)

This tool consist of (8 items) that test the women action and behavior toward these danger clinical features, was measured by using 3 points likert scale ranged as (always – sometimes – never) responses.

The scoring system was ranged from 0 – 16.

- Negative attitude toward danger clinical features from (< or equal 7)
- Positive attitude toward danger clinical features from (> or equal 8)

Validity:

A panel of five professionals in the field of maternal and newborn health nursing evaluated the tool for clarity, relevance, comprehensiveness, understanding, applicability, and ease before making any required revisions to ensure that the information was authentic.

Reliability of the tools:

Tools in this present study were examined for internal reliability by utilized Cronbach' alpha test.

For tool (1) demographic and knowledge	0.763
For tool (2) attitude	0.652

Pilot Study:

To assess the viability of the tools and the amount of time needed to apply them, a pilot research was conducted on 10% (30) of the entire sample. Simple changes were also made to a few questionnaire items. The main study did not include the pilot sample.

Ethical considerations:

- The Research Ethics Committee of the Faculty of Nursing at Minia University granted an official letter.
- The dean of Minia University's faculty of nursing gave his approval for the study to be carried out.
- The director of Minia Maternity and Children University Hospital granted permission.
- After explaining the nature and goal of the study to the women who were willing to participate, oral agreement was obtained before the pilot study and the main study were conducted. The study subject has the right to decline participation or to leave the study at any time and without explanation. Privacy of study participants was taken into account while data were collected. Participants were given the assurance that all of their information would be kept in strict confidence, and anonymity was ensured by giving each lady a number rather than her name to preserve her privacy.
- The study did not conflict with traditional, cultural, or religious issues.
- Health risks weren't present.
- Participants received guarantees that all of their information was kept anonymous and under the strictest of confidence.

- The directors of Minia Maternity and Children's University Hospital granted the authorization.
- The tool was translated into Arabic language by an expert.
- Pregnant women interviewed at prenatal care clinics to describe the study's nature and objectives.
- The researcher introduced herself to each expectant mother and went into great detail about the study's goals. Each individual gave verbal consent before the researcher thoroughly explained each component of the tool. Finally, the researcher recorded the responses of the subjects on sheets.
- To help comprehend the purpose of the study, each question from the subject was thoroughly described.
- The time required to fill the sheet take a proximately 10-15 min.
- Total number of pregnant women interviewed daily range from 12-15 women daily.
- The data was collected 3 times a week from 9:00am to 1:00 pm , over three months (from march 2022 to June 2022)

Data collection procedure

- The Dean of the Nursing Faculty authorized the issuance of an official letter. A brief summary of the study's aims was included in this letter.

Statistical analysis

Using the SPSS program, the acquired information was tabulated, computerized, analysed, and concluded using descriptive statistical tests to test the study topics. When the p-value was less than or equal to 0.05, the level of significance was acknowledged as being significant.

Results

Table (1) Distribution of women in relation to socio demographic characteristics (N= 306)

Sociodemographic characteristics	N	%
Age/years		
• <30	200	65.4
• 30- <40	103	33.6
• 40 or more	3	1.0
Age mean± SD	27.18±5.87	
Residence		
• Rural	264	86.3
• Urban	42	13.7
Educational level:		
• Illiterate	95	31.0
• Read and write	34	11.1
• Primary & preparatory	33	10.8
• Secondary / diploma education	111	36.3
• University graduate	33	10.8
Occupation		
• Housewife	290	94.8
• Employed	16	5.2

Table (1) showed that (65.4%) of pregnant women age was less than 30 year. Regarding residence, most of pregnant women live in rural area with (86.3%). concerning educational level, the highest level (36.3%) of pregnant women had secondary/ diploma education. Regarding occupation, most of them were housewife with (94.8%).

Table (2) Distribution of women in relation to knowledge about danger clinical features (N= 306):

Danger clinical features		N	%
vaginal bleeding	Correct answer	118	40.5
	Incorrect answer	188	59.5
Difficulty of breathing	Correct answer	80	26.1
	Incorrect answer	226	73.9
Loss of consciousness	Correct answer	77	25.2
	Incorrect answer	229	74.8
High fever	Correct answer	87	28.4
	Incorrect answer	219	71.6
Severe headache	Correct answer	100	32.7
	Incorrect answer	206	67.3
Severe abdominal pain	Correct answer	76	24.8

Danger clinical features		N	%
	Incorrect answer	230	75.2
Blurred vision/dizziness	Correct answer	80	26.1
	Incorrect answer	226	73.9
Convulsion	Correct answer	65	21.2
	Incorrect answer	241	78.8
Swollen hand /face	Correct answer	61	19.9
	Incorrect answer	245	80.1
Sudden gush of fluid before labor	Correct answer	192	62.7
	Incorrect answer	114	37.3
Excessive vomiting	Correct answer	86	28.1
	Incorrect answer	220	71.9
Loss of fetal movement	Correct answer	130	42.5
	Incorrect answer	176	57.5
Premature onset of contraction	Correct answer	106	34.6
	Incorrect answer	200	65.4
Foul-smelling vaginal discharge	Correct answer	82	26.8
	Incorrect answer	224	73.2
Sudden weight gain	Correct answer	54	17.6
	Incorrect answer	252	82.4
Weakness to get out of bed	Correct answer	65	21.2
	Incorrect answer	241	78.8
Dysuria	Correct answer	47	15.4
	Incorrect answer	259	84.6
Oliguria/anuria	Correct answer	124	38.6
	Incorrect answer	182	61.4

Table (2) explained that the highest percentage regarding pregnant women knowledge about danger clinical features was for items “sudden gush of fluid before labor, loss of fetal movement, vaginal bleeding, oliguria/anuria, Premature onset of contraction & Severe headache” (62.7%, 42.5%, 40.5%, 38.6%, 34.6%, &32.7% consequently).

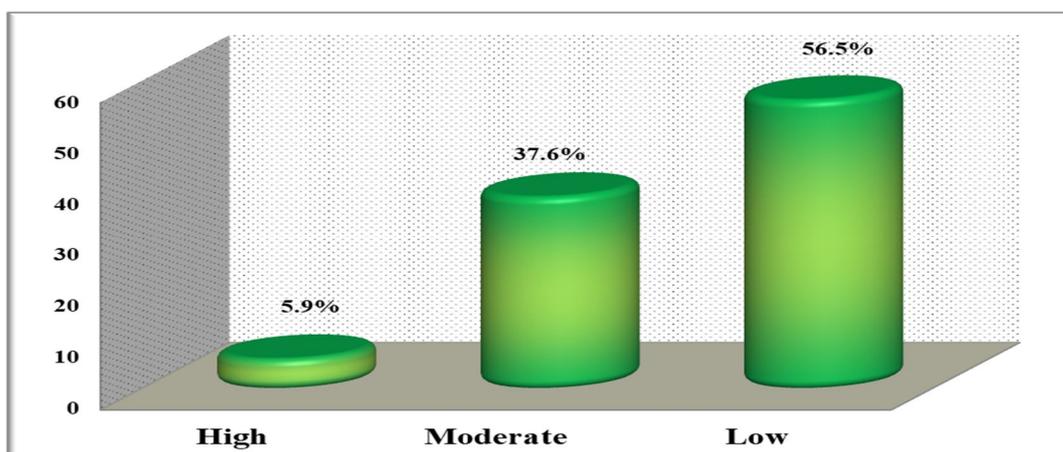


Figure (1) Distribution of studied women in relation to total knowledge levels about danger clinical features (N= 306):

Figure (1) illustrated that the highest percentage of pregnant women (56.5%) had low level of knowledge regarding danger clinical features.

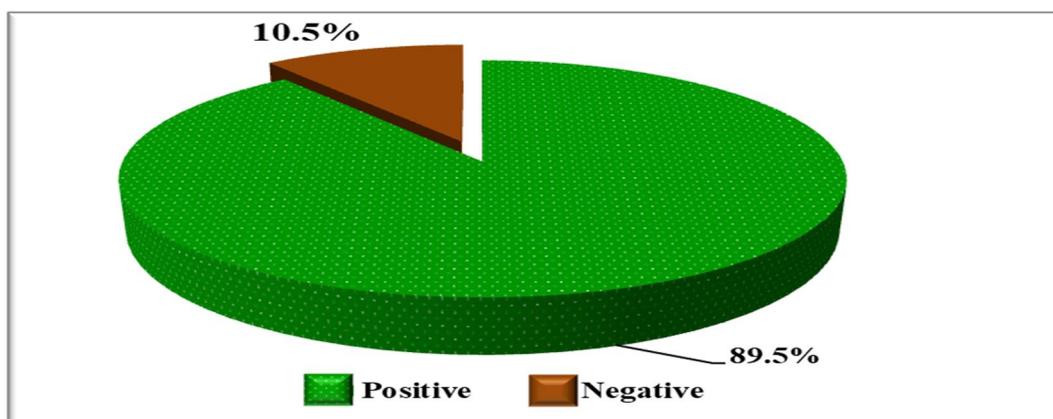
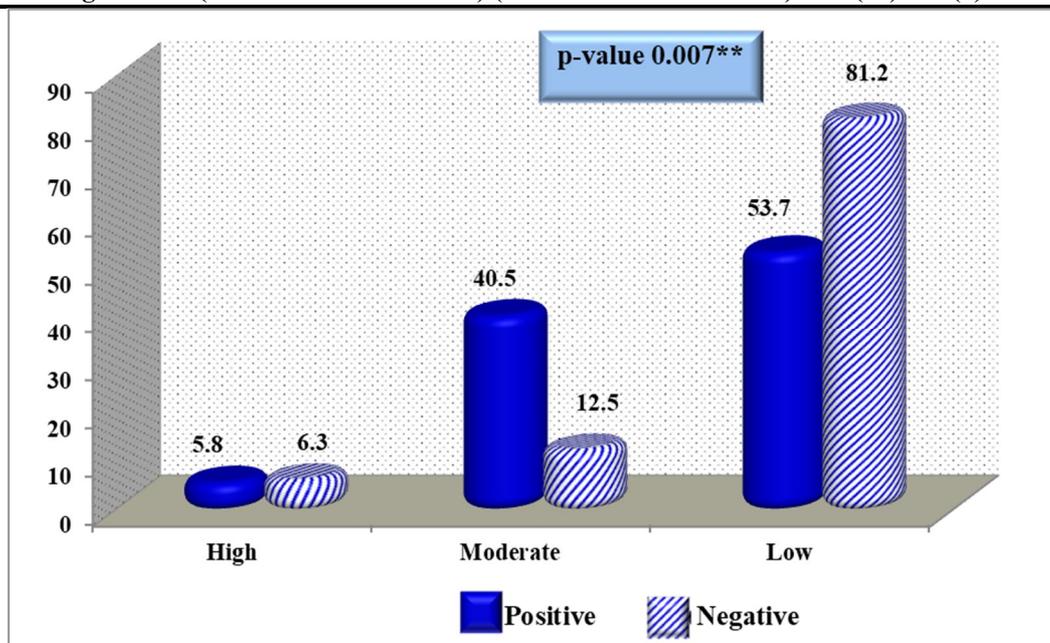


Figure (2) Distribution of women in relation to total score of attitude toward danger clinical features (N= 306)

Figure (2) illustrated that most of pregnant women (89.5%) had positive attitude toward danger clinical features.



(**) highly statistical significant difference

Figure (3) Relationship between total knowledge level and women’s attitude toward danger clinical features (N= 306):

Figure (3) illustrated that there was highly statistical significant relationship between pregnant women’s knowledge level and their attitude toward danger clinical features of pregnancy (0.007).

Discussion

One of the main causes of maternal deaths in underdeveloped countries is a lack of knowledge of danger features of pregnancy among women, their families, and attendants of delivery. These fatalities can be decreased by educating women about the warning indicators of pregnancy, encouraging a healthy attitude toward seeking care, and providing guidance on how to handle any unforeseen issues. Therefore, when women visit a clinic for ANC, they are expected to get health education on pregnancy, including outcomes, warning signs during pregnancy, nutrition, family planning, and other services (**Dessu et al., 2018**).

The aim of the current study was to assess knowledge and attitude of pregnant women regarding danger clinical features of pregnancy.

In the current study, regarding socio demographic data of studied women, it was showed that the majority of pregnant women age was less than 30 yrs. This might be due to majority of study sample were from rural areas which characterized by early marriage. Also, the most common period of pregnancy being before age of 30 years. Regarding residence, the result showed that most of pregnant women live in rural areas. This might be due to most of pregnant women were referred from private clinics that not prepared enough in villages to highly prepared hospital which provide proper medical care This result was supported by **Zaki, Fouad & Hassan (2021)** who studied the pregnant women’s knowledge and practices toward danger signs of pregnancy and found that majority of pregnant women were from rural areas.

Concerning educational level, the highest level of pregnant women had secondary/ diploma education. This might be due to most of them were from rural areas which usually characterized by that level of education is enough according to their habits and also there economic status. Regarding occupation, most of them were housewife. This might be due to moderate educational level and also rural culture that not recommend female work. These results were agreed with **El-Nagar, Ahmed & Belal (2017)** who studied

the pregnant women’s Knowledge and practices concerning danger signs of obstetric complications and stated that about (43.5%) had secondary/ diploma education. Also, showed that slightly more than three quarters of the women (76.5%) were housewives.

Regarding pregnant women knowledge of danger clinical features during pregnancy, the study revealed that the highest percentage regarding pregnant women knowledge about danger clinical features was for items “sudden gush of fluid before labor, loss of fetal movement, vaginal bleeding, oliguria/anuria, premature onset of contraction & severe headache. It might be due to these danger clinical features is the most prevalent and frequent during pregnancy, and leading to pregnancy complications. These results were supported by (**Nurji, et al., 2017**) who assess obstetric danger signs knowledge, attitude and practice during pregnancy in Ethiopia. found that Majority of studied sample identified severe vaginal bleeding at any period during pregnancy as danger sign followed by persistent headache, blurred vision , leaking of fluid from birth canal.

Also, (**Mwilike, et al., 2018**) found that (34,6%) identified that decreased fetal movement as a danger sign. Another study done by (**El-Nagar, Ahmed & Belal 2017**) found that majority of studied women stated that premature onset of contraction as one of danger signs during pregnancy.

Regarding total knowledge level about danger clinical features during pregnancy, this result showed that the highest percentage of pregnant women had low level of knowledge regarding danger clinical features. It might be due to the majority of study sample were had moderate educational level which affected on their knowledge, also the majority of studied sample were from rural where media of increasing knowledge as smart phone, television are not enough and inaccessible. This result was in accordance with (**Eittah, 2017**) who studied knowledge and reaction of pregnant women toward danger features of pregnancy and uses of antenatal services and found that the highest participants (80.5%) have unsatisfied knowledge regarding the

danger signs. Also, (Ajabmoh, et al., 2021) stated that (61.5%) of the participants had poor knowledge regarding danger signs during pregnancy. While, this result disagreed with (Bakar, et al., 2019) who found that Women's awareness on danger signs during pregnancy was high.

Regarding total score of attitude toward danger clinical features during pregnancy, this study illustrated that most of pregnant women had positive attitude toward danger clinical features, this result was agreed with (Mekonnen, Girmaye & Taye 2018) who found that (72.6%) of studied sample had positive attitude toward danger signs of pregnancy. while (Sufiyan, et al., 2016) found that The majority of the respondents (87.0%) have a poor attitude toward seeking care at a health facility on danger signs of pregnancy.

Finally, in regard to relationship between total knowledge level and women's attitude toward danger clinical features, this result illustrated that there was highly statistical significant relationship between pregnant women's knowledge level and their attitude toward danger clinical features of pregnancy ($p= 0.007$). This might be due to high knowledge usually leads to positive attitude. This result was in accordance with Sufiyan, et al., (2016) who assess women of childbearing age's knowledge, attitude and perception of danger signs during pregnancy in Nigeria and found that there was statistically significant association between studied sample total level of knowledge and attitude toward danger signs during pregnancy ($p = 0.003$).

Conclusion

The current research summarized that pregnant women had low level of knowledge regarding danger clinical features, positive attitude toward danger clinical features of pregnancy and there was highly statistical significant relationship between pregnant women's knowledge level and their attitude toward danger clinical features of pregnancy

Recommendations

- Give counseling for pregnant women about warning signs during pregnancy
- Establishing antenatal programs to educate all expectant mothers about the clinical dangers of pregnancy and when it is best to see a doctor.
- Interventions aimed at improving maternal health should take into account the caliber of information provided to expectant mothers and the general public, with a particular emphasis on pregnancy's potentially dangerous clinical aspects.

Recommendations for further research

- Researching how health education programs affect women's awareness of and attitudes toward clinical signs of danger during pregnancy, labor, and the postpartum period.
- Further researches should replicate the study to include larger group of pregnant women which help to reduce complications of pregnancy

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