Rural Teenage Pregnant Female Unmet Needs

Hassnaa Reda Mohamed Ismail[1], Kamilia Ragab[2], Randa Mohamed[3], Amal Fatthy[4]

[1] Faculty of Nursing, Damanhur University
[2] Professor of maternity and gynecological Nursing, Faculty of Nursing, Ain shams University
[3] Professor of maternity and gynecological Nursing, Faculty of Nursing, Ain shams University
[4] Assistant professor of maternity and gynecological Nursing, Faculty of Nursing, Ain shams University

Abstract

Background: Teenage pregnancy is pregnancy in a female under the age of 20. According to the International Center for Research on women (ICRW) statistics, a third of the world's girls marries before they turn 18 and 1 in every 9 girls is married before they turn 15. **The aim of the study**: To assess rural teenage pregnant female unmet needs. **Design**: A descriptive study design was used. **Setting**: The study was conducted at the antenatal clinics at Damanhur Medical National Institute and Red Crescent center in Damanhur at Beheira Governorate. **Sample**: A purposive sample of (320) rural teenage pregnant were recruited on the study. **Data collection tools**: three tools were used for data collection; first was structured interviewing questionnaire schedule, second was health needs assessment sheet and third was likert attitude scale. **Results**: The result of the present study reveals that the majority of the studied rural teenage pregnant had unmet physiological needs; physiological changes during pregnancy, take enough rest during the day that represent 90.3% and 74.4% respectively. The most unmet psychological needs were recognized the normal psychological changes during pregnancy, and prepare for the role of the mother that represent 95.3% and 73.1% respectively. While, the most unmet social needs were unavailable time to participate in community activities and family member positively provide support when needed that represent 95.3%, and 77.2% respectively. **Conclusion**: The result of the current study concluded that 70.9% of studied teenage had total physical, psychological and social unmet needs. Moreover, majority of the studied rural teenage pregnant female had positive attitude concerning effect of their unmet needs on their over-all health and pregnancy out-come. **Recommendation**: Establish pre conceptional counseling program to meet rural teenage pregnant female needs, prenatal health classes should be implemented at antenatal clinics and Maternal and Child Health centers, regarding teenage pregnancy and its consequences.

Keywords: Teenage pregnancy, Unmet needs, Rural

Introduction:

Teenage pregnancy is pregnancy in a female under the age of 20 ***(WHO, 2016).*** According to the International Center for Research on women (ICRW) statistics, a third of the world's girls marry before they turn 18 and 1 in every 9 girls is married before they turn 15 ***(Johnson, 2016).***

Many studies done all over the world have suggested that teenage pregnancies are on the increase ***(Sully, 2018).*** Teenage pregnancies lead to a high-risk group in reproductive terms because of the double load of reproduction and developmental growth. About 95% of teenage births occur in developing countries, especially in rural areas; early pregnancy may combine with malnutrition and poor health care to cause medical problems. Additionally, In Egypt teenage pregnancy ranges from 4.1% in urban societies to 11.3% in rural areas ***(Grønvik, 2018).***

The meaning assigned to teenage pregnancy varies among different cultures, as do the corresponding implications and consequences. Teenage pregnancy is a complex issue influenced by many factors including individual, family and community characteristics. Its consequences affect the health, social and economic well-being of the

teenagers, their children and society at large. The distinction between correlation and causality is sometimes difficult to determine, but this distinction is important since much of the interest in teenage pregnancy and childbearing is based on the assumption that policy interventions may be effective in reducing or eliminating adverse consequences ***(WHO, 2017).***

Pregnant teenagers face many of the same pregnancy related issues as other women. There are additional concerns for those under the age of 20 as they are less likely to be physically developed to sustain a healthy pregnancy or to give birth ***(WHO, 2016).***

There are many unfavorable maternal outcomes of teenage pregnancy such as preterm delivery, anemia in pregnancy, hypertensive disorders, urinary tract infection, miscarriage, sexually transmitted diseases, traumatic fistulas, postpartum infection, psychological illness, a high rate of cesarean deliveries and fetal distress. Teenage mothers aged 10-14 years have a maternal mortality rate (MMR) which is about 5 times higher than the MMR for the mothers aged 20-24 years. Also, there are many adverse fetal outcomes such as preterm births, low birth weight infants, still births, birth asphyxia, respiratory distress syndrome and birth trauma or injury ***(*Singh*, 2018).***

Teenage pregnancy is one of the main issues in every health system since early pregnancy can have harmful implications on girl's physical, psychological, economic and social needs. Unmet needs are defined as the differences between services judged necessary to deal appropriately with health problems and services actually received. ***(Vikat, 2016).***

Unmet needs of pregnant teenagers reported by the large cities of USA (2015); the most frequently reported needs were for social needs, need for support, health education which includes family life education, sex education, parenting classes, contraception counseling, and making the teenager aware of community resources, health services; this includes the need for early antenatal care, the need for financial assistance consists of supplemental income for the mother, funding for health care**,** the need for nutrition services consists of nutrition education, of a more adequate diet for the teenager, and of food supplements, The need for transportation ***(Johnson, 2017).***

However, Nurse plays a critical role in reducing the rate of teen pregnancy. Specifically, nurses can educate and counsel youth about sexuality, reproduction, and contraception. Also, work with teenagers before they become sexually active through develop, implement, and evaluate community-based teenage pregnancy prevention programs ***(Abdelsattar, 2016).***

Furthermore, nursing as the profession and discipline oriented to human beings care in the different stages of life starting from a humanized interpersonal relationship, try to respond to pregnant teenage physical, psychological, and sociocultural needs, having clear that they are human beings with specific organics, functional, socials and emotional characteristics and which requires a differential care by the labor health care team ***(Helina and Betty, 2016).***

Justification of the Problem

Teenage pregnancy remains a major contributor to maternal and child mortality, and to inter-generational cycles of ill-health and poverty. Pregnancy and childbirth complications are the leading cause of death among 15 to 19 year-old girls globally, with low and middle-income countries accounting for 99% of global maternal deaths of women ages 15 to 49 years ***(Abbas, 2016).***

The number of teenage married annually is estimated to increase from 14.2 million in 2010 to 15.1 million in 2030 ***(Loaiza, 2019)***. In the Arab region 1in7 girls marries before age 18. Early marriage constitutes the major socioeconomic and sociocultural factors facilitating teenage childbearing in Egypt. Early marriage often leads to a higher total number of lifetime births. The proportion of ever-married teenage women who have begun childbearing (or are pregnant with a first child) is slightly

more than 10 percent in Egypt ***(Abdelsattar, 2016).***

Unmet needs among teenagers is a nursing concern because nurse play a multiple roles; as a direct care provider, health educator, counselor, manager and researcher.

Aim of this study

The aim of the present study is to assess rural teenage pregnant female unmet needs.

Research Questions

- What are rural teenage pregnant female unmet needs?
- What is rural teenage pregnant female attitude concerning their unmet needs?

Subjects and Methods

Design:

A descreptive study design was used.

Setting:

The study was conducted at the antenatal clinics at Damanhur Medical National Institute and Red Crescent center in Damanhur at Beheira Governorate.

Damanhur Medical National Institute:

It consists of three buildings, with five floors for the research, and the ground floor consists of the emergency room, outpatient department, and antenatal room. The first floor is composed of a laboratory, central disinfection, operating room, and intensive care unit. The second floor consists of an endoscope unit and an intensive care unit. Intensive care unit, cardiac catheterization, pediatrics, obstetrics, and gynecology. The third floor is the pediatric intensive care unit, neonatal intensive care unit, and obstetrics and gynecology department. Cardiothoracic surgery is on the fourth floor. The fifth floor is the tropical and medical department.

Sampling

Sample Size, type: A Purposive sample technique was used to recruit (320) rural teenage pregnant female. The sample size was calculated according to the following formula.

$$n = \frac{Z2\,P(1-P)}{d2} \quad \frac{Z2\,P(1-P)}{d2}$$

With the following criteria: Rural teenage pregnant female.

Tools of data collection:

Tool I: A Structured Interviewing questionnaire schedule.

A structured interviewing questionnaire schedule was designed by the researcher to collect the needed data. It consists of three parts as the following.

Part I: This part used to assess the general characteristics of the studied sample such as age, level of education, place of residence, economical status and occupation.

Part II: It was used to assess obstetric history (gravidity, parity, number of previous abortion or still birth, types of delivery, previous pregnancy complications, previous labor complications, and previous postnatal complications).

Part III: This part was concerned with **the current obstetrical and medical history, the current obstetrical history** as the gestational age, antenatal visits and problems with current pregnancy).

Tool II: Health needs assessment sheet.

It was adopted from **(Robert, 2003)** and modified by the researcher to assess rural teenage pregnant female unmet needs: it consists of 17 items classified as the following (Physical needs "8", psychological needs "6" & social needs "3") classified as the following each items has three category to select (met need = 3, not fully met= 2, unmet need = 1).

❖ **Scoring system:**

The total scoring system of rural teenage pregnant female unmet needs ranged between 1-51. It was converted into two categories, met need is total score equal or more than 80% from

total score, unmet need is less than 80% from total score.

Tool III: Likert Attitude Scale:

It was adopted from **(Sand, 2009)** and modified by the researcher to assess rural teenage pregnant female attitude regarding their unmet needs, it consist of seven items. Each item will be evaluated (positive= 3, uncertain= 2, negative=1)

❖ **Scoring system:**

Total score range from 1: 21, it was converted into two categories; positive attitude was total score equal or more than 70% from total score, negative attitude was less than 70% from total score.

Validity & reliability of the Tools:

Tools were reviewed by a panel of three experts in obstetric and gynecological nursing field to test the face and content validity. Each of the experts was asked to examine tools for content coverage, clarity, wording, length, format, and overall appearance. Modifications were done according to the comments. Four questions were rephrasing and cancelling. Reliability of tools was measured through **Cronbach's Alpha** test.

Tool	Cronbach's Alpha
Characteristics of the subject	0.830
Health needs assessment	0.897
Likert Attitude Scale	0.902

Ethical Considerations

The research approval was obtained from Scientific Research Ethical Committee in Faculty of Nursing at Ain Shams University before starting the study. The researcher clarified the objective and aim of the study to the participants included in the study. The researcher was assured maintaining anonymity and confidentiality of the subject data. Rural teenage pregnant female informed consent was obtained and they allowed participating or withdrawing from the study at any time without penalties.

Administrative design:

An official approval to conduct this study was obtained from Dean of faculty of nursing Ain Shams University, a letter containig the title and aim was directed to adminstrator of the previous mentioned study setting.

Statistical design:

Data collected from the studied sample was revised, coded and entered using Personal Computer (PC). Computerized data entry and statistical analysis were fulfilled using the Statistical Package for Social Sciences (SPSS) version 22. Data were presented using descriptive statistics in the form of frequencies, percentages and Mean SD. The **Chi Square** statistic is commonly used for testing relationships between categorical variables. A correlation coefficient is a numerical measure of some type of correlation, meaning a statistical relationship between two variables.

Pilot Study:

A pilot study was carried out on (10%) 32 pregnant women were included in the study sample as no modification done in the tools of data collection.

Field Work

After taken approval from the administrator of previous mentioned study setting the researcher visit this setting 2 days / week at morning shift from 9 am to 2 pm to collect data started from 1st January, 2021 to the 1st of May, 2021. At beginning of the interview the researcher start to introduce her self and explained berifely the aim of the study to the studied women to gain confidence and trust then took oral consent from them. The researcher interviewing with each pregnant women fulfilled the sample criteria individually in waiting area at outpatient clinics. The average number of teenage pregnant women interviewed per day were (5-7) teenage pregnant. The researcher used 3 tools to carry out the research; **first tool** structured interviewing questionnaire which used to assess pregnant women's general characteristics, previous obstetric and medical history and the current obstetrical history within time range (10) minutes. **Second tool Health needs**

assessment sheet that filling within time range (10) minutes. While, **assessing third tool Likert Attitude Scale** was used to assess rural teenage pregnant female attitude regarding their unmet needs filling within time range (10) minutes. The total duration of each interview was (25-30) minutes and filled by the researcher. The researcher repeated the previous steps until finished the duration of data collection.

Results:

Table (1): Illustrated that, (66.9%) of the studied sample were aged between 18 and 19 years old, the **mean age** of the studied teenage pregnant women was 18.02 ± 1.1 years. In addition, 94.7% were married and 43.1% had secondary education. Concerning work, 89.4% of participants weren't working, and 47.4% had barely sufficient income.

Table (2): Showed that 54.1% of the studied sample were primigravida. As regard mode of previous delivery, (31.3%) of them had cesarean section delivery. Furthermore, 25.9% of them had complications during section previous delivery.

Table (3): pointed out that (52.8%) of the studied samples is in the second trimester. (70.0%) of studied samples had irregular prenatal checkup, and 90.9% said that they started their first prenatal checkup in the first three months. In this pregnancy, (54.7%) said they had experienced high blood pressure and (19.45) complications of preeclampsia. In addition, most of the study samples (75.9%) reported that the reason for the visit today was complications.

Table (4): displayed that the most unmet needs were "Recognize the physiological changes during pregnancy" (90.3%) then "Take enough rest during the day" (74.4%).Finally, (70.9%) of studied teenage pregnant women had unmet physiological needs.

Table (5): Revealed that all the psychological needs unmet except "availability of psychological support by the health care team" which reported as met needs by 31.3% of studied sample. Additionally, the needs of "Avoiding violence during pregnancy" and "Availability of psychological support from the husband" were not fully met (73.8% and 63.1% respectively). The most unmet needs were "Recognize the normal psychological changes during pregnancy." (95.3%), and "Prepare for the role of the mother." (73.1%).

Table (6): indicated that all studied sample reported that all the social needs weren't met but, the needs of "Provide a safe means of transportation for regular follow-up of pregnancy" was not fully met (70.0%).Additionally, the most unmet needs were "Unavailable time to participate in community activities." (95.3%), and "Family member positively provide support when needed." (77.2%).

Figure (1): Reveals that 93.7% of the studied sample reported that all their needs were unmet and only 6.3% of them reported that all their needs were met.

Table (8) Revealed that 91.0% of the studied sample had positive attitude concerning effect of their unmet needs on their over-all health and pregnancy out-come.

Table (1): Frequency distribution according studied sample's general characteristics (n=320).

General characteristics		Frequency	Percent
Age:			
	15-17	106	33.1
	18-19	214	66.9
Mean ± SD		**18.02 ± 1.1**	
Marital status:			
Married		303	94.7
Divorced		17	5.3
Education:			
Not read & write		59	18.4
Read/write		8	2.5
Primary		86	26.8
Secondary		138	43.1
University		29	9.1
Work:			
Working		5	1.6
Not Working		315	89.4
Income:			
Sufficient		28	8.8
Insufficient		140	43.8
Barely sufficient		152	47.4

Table (2): Frequently distribution according studied sample's previous obstetrical history (n=320)

Obstetric history	Frequency	Percent
Gravida		
Primi	173	54.1
1-2	133	41.5
3 or more	14	4.4
Number of previous abortion		
None	242	75.6
1	73	22.8
2	5	1.6
Exposure to complications during previous pregnancy[n=147]:		
Yes	93	29.1
No	54	16.9
Common complications during a previous pregnancy		
Bleeding	99	30.9
Eclampsia	27	8.3
Pre-eclampsia	15	4.7
Had a stillbirth:		
Yes	27	8.4
No	293	91.6
Type of previous delivery[n=147]:		
Normal	47	14.7
Caesarean section	100	31.3
Have Complications during previous delivery[n=147]:		
Yes	83	25.9
No	64	20.0
Common complications during a previous delivery:@[n=83]		
Postpartum Hg.	36	11.3
Postpartum fever	52	16.3
Wound healing delay	17	5.3

Table (3): Frequently distribution according studied sample's current pregnancy history (n=320).

Current pregnancy	Frequency	Percent
Gestational age		
1st trimester	99	30.9
2nd trimester	169	52.8
3rd trimester	52	16.3
Mean ± SD	**19.32 ± 8.4**	
Antenatal visit		
Regular	96	30.0
Irregular	224	70.0
Time of first visit on current pregnancy		
1st trimester	291	90.9
2nd trimester	29	9.1
Common complications associated with the current pregnancy[n=243]:		
Gestational hypertension	175	54.7
Eclampsia	6	1.9
Pre-eclampsia	62	19.4
Reason for attending the clinic today		
Follow up on the current pregnancy	77	24.1
Presence of complication	243	75.9

Table (4): Frequency distribution according studied sample's physiological needs (n=320).

	Met needs		Not fully met		Unmet needs	
	No.	%	No.	%	No.	%
1. Pregnancy follow-up schedule and necessary vaccinations during pregnancy	0	0.0	161	50.3	159	49.7
2. Required nutrition during pregnancy	0	0.0	102	31.9	218	68.1
3. Exercises required during pregnancy	0	0.0	15	4.7	305	95.3
4. Physiological changes during pregnancy.	0	0.0	31	9.7	289	90.3
5. Danger signs during pregnancy and how to deal with them.	0	0.0	144	45.0	176	55.0
6. Take enough rest during the day	0	0.0	82	25.6	238	74.4
7. Self-care during pregnancy.	0	0.0	115	35.9	205	64.1
8. Signs of childbirth and it's preparation.	0	0.0	93	29.1	227	70.9
Total physiological needs	**0**	**0.0**	**93**	**29.1**	**227**	**70.9**

Table (5): Frequency distribution according studied sample's psychological needs (n=320).

Items	Met needs		Not fully met		Unmet needs	
	No.	%	No.	%	No.	%
1. Recognize the normal psychological changes during pregnancy.	0	0.0	15	4.7	305	95.3
2. Availability of family support	0	0.0	100	31.3	220	68.8
3. Availability of psychological support from the husband.	0	0.0	202	63.1	118	36.9
4. Avoiding violence during pregnancy.	21	6.6	236	73.8	63	19.7
5. Availability of psychological support by the health care team.	100	31.3	175	54.6	45	14.1
6. Prepare for the role of the mother.	0	0.0	86	26.9	234	73.1
Total psychological needs	**38**	**11.9**	**136**	**42.5**	**146**	**45.6**

Table (6): Frequency distribution according studied sample's social needs (n=320).

Items	Met needs		Not fully met		Unmet needs	
	No.	%	No.	%	No.	%
1. Family member positively provide support when needed.	0	0.0	73	22.8	247	77.2
2. Participate in community activities.	0	0.0	15	4.7	305	95.3
3. Availability safe and comfort transportation for pregnancy follow-up	0	0.0	224	70.0	96	30.0
Total social needs	**0**	**0.0**	**104**	**32.5**	**216**	**67.5**

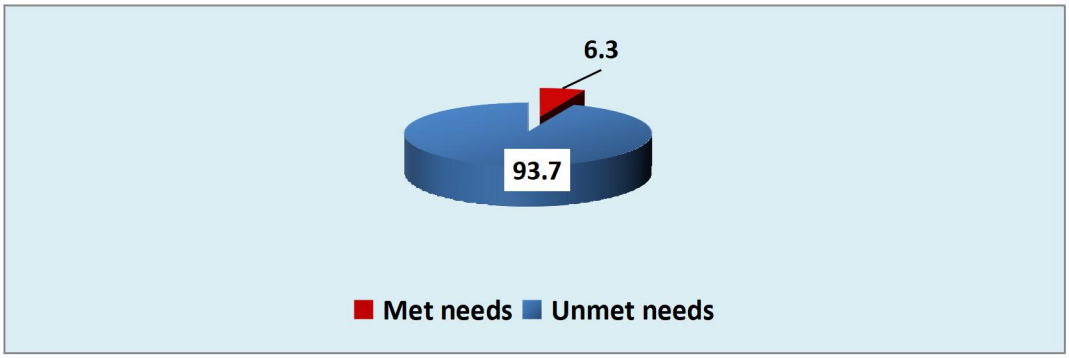

Figure (1): Total needs as reported by the studied sample (n=320)

Table (8): Frequency distribution according studied sample's attitude of regarding their unmet needs (n=320).

Items	Agree		Uncertain		Disagree	
	No.	%	No.	%	No.	%
1. Teenage pregnant women have special needs.	320	100.0	0	0.0	0	0.0
2. Pregnancy of teenagers has harmful effects on the reproductive health of the mother.	309	96.6	11	3.4	0	0.0
3. Pregnancy of teenagers has harmful effects on the fetus.	288	90.0	32	10.0	0	0.0
4. Failure to meet the physiological needs affect pregnancy outcome.	320	100.0	0	0.0	0	0.0
5. Failure to meet the psychological needs affects the mother's mental health.	160	50.0	144	45.0	16	5.0
6. Failure to meet the social needs affects the mother's relationship with family members	320	100.0	0	0.0	0	0.0
7. Meeting the needs of teenage pregnant women is the responsibility of the husband, the family and the medical team.	320	100.0	0	0.0	0	0.0
Total attitude	291	91.0	27	8.4	2	0.6

Discussion

Teenage pregnancy represents a high-risk reproductive behavior which is particularly widespread in developing countries. Teenage pregnancy does not only have negative consequences for the health of teenagers, it is also a grave issue from the point of view of socioeconomic development, especially in the

developing world. The various complications of pregnancy and childbirth have been identified as the leading cause of mortality among teenagers from 15 to 19 years old (**Anoua et al., 2020**).

The present study with aim to assess rural teenage pregnant female unmet needs.

Regarding to General characteristics of studied sample, the majority of the studied sample were aged between 18 and 19 years old with mean age**18.02 ± 1.1**Most of them were married and less than half had secondary education. Concerning work, majority of them weren't working. The present study finding was agree with **Ahinkorah et al., (2021)** who studied " Prevalence of first adolescent pregnancy and its associated factors in sub-Saharan Africa" and proved that the majority of the studied females their age range between 15 to 19 years old age, married and not working, and more than two fifths of them had secondary education. Additionally, this result supported by **Omoro et al., (2018)** entitled "Teen pregnancy in rural western Kenya" and showed that highest percentage of teens who become pregnant increases with age.

Moreover, this result support by **Abbas et al., (2017)** who conducted study about "The maternal and neonatal outcomes of teenage pregnancy in a tertiary university hospital in Egypt" and showed that most of the studied sample were not working. The similarities between two studies may be contributed to the same culture of both studied sample.

While this results disagreed with **Eldaboly et al., (2021)** who studied "Prevalence and outcome of teenage pregnancy among attendants of labour room in Bassion general hospital-Egypt " and reported that around one half of studied sample stopped education at primary and preparatory schools and few of them had secondary education. The differences between two studies be contributed to level of household.

Regarding income, the present study revealed that the majority of studied sample had insufficient and barely sufficient income. The present study was agree with **Subedi et al., (2018)** who studied " Maternal and perinatal outcome of teenage pregnancy in a tertiary care center Nepal " and reported that teenagers who belonged to middle or poor household had higher odds of being pregnant compared to those who belonged to rich household. From researcher point view, this result might due to economic burden that are often placed on women to early marriage because the wedding gift system is still prevalent in rural areas. In addition to, majority of rural women weren't work.

Concerning on gravida, the present study revealed that the highest percentage of the studied female were primi, and more than two fifths had second time pregnancy, this result agree with **Mahe et al., (2018)** who studied " Obstetrics characteristics and adverse outcomes of teenage pregnancy cases presented to Colonial War Memorial Hospital (CWMH) in Suva, Fiji " and showed that The majority of the studied teenage pregnancy were primi gravida.

The similarities between two studies may be due to pressure on the teenage mother to beget a son from the family.

Concerning on Exposure to complications during a previous pregnancy, the current study displayed that less than two thirds of the studied female had complications during a previous pregnancy, this outcome matched with result by **Prakash et al., (2011)** who studied "Early marriage, poor reproductive health status of mother and child well-being in India" and showed less than three fifths of studied sample had pregnancy complications. The similarities between two studies may be due to poor reproductive health status of teenagers or decreased use of health services.

While this results disagreed with **Rai et al., (2019)** who studied "Adolescent Pregnancy and its Outcome in a Rural Teaching Hospital, Karnali Academy of Health Science, Jumla, Nepal" and reported that more than two thirds

of studied sample had no complication from pregnancy. The differences between two studies may be due to access to health services.

Regarding to complications from previous pregnancy, the current study showed the majority of studied sample had Bleeding, this finding disagreement with **Yasmin et al., (2014)** who studied "Teenage pregnancy-its impact on maternal and fetal outcome" and reported that highest percentage of the studied sample had Preterm labour as complications in teenage pregnancy. This could be explained by most of rural pregnant women live in extended family, where there is a lot of housework and unmet need of required nutrition.

Concerning on still birth, the present study presented that less than one fifth of the studied sample had still birth, this finding agree with **Shaikh et al., (2016)** who studied "Adverse Outcome of a Teenage Pregnancy" and presented that less than one fifth of Teenage Pregnancy had still birth.

The present study revealed that more than two thirds of the studied female had cesarean section delivery, this result confirmed with study by **Kamel et al., (2019)** under title "Community-based interventions to support maternal and child health practices in upper Egypt" and reported teenager pregnancy higher rate of caesarian delivery. The similarities between two studies may be due to teenager's reproductive system is not mature enough for pregnancy and normal delivery.

On other hand, this result in contrast with study by **Gobran et al., (2021)** "Educational Program for Pregnant Women Regarding Obstetrics Dangerous Signs in Rural Areas" and reported that more than two fifths had cesarean section delivery. This difference between studies might due to teenager pregnant high risk to obstructed labor due to immature reproductive system so that take more medication pregnancy stabilization.

The present study showed that majority of the studied sample first visit within 1st trimester, this finding agree with **Ebrahim, et al., (2021)** who studied " Concern of Pregnant Women Regarding Benefits of Utilizing Antenatal Care in Selected Maternal and Child Health Centers at Minia City" and showed that highest percentage of studied female first visit within1st trimester of pregnancy.

Concerning to current pregnancy history , the present study finding revealed that the total studied sample attend antenatal care and the majority were irregular , this result in same line with **Devi et al., (2019)** who studied "Prevalence of teenage pregnancy and pregnancy outcome at a rural teaching hospital in India" and showed that the proportion of women who booked for antenatal care was very high, this result might due to easy access to medical facility at hospital also contributed to high rates of booking Antenatal visit.

Regarding to physiological needs, The present study revealed that that the most unmet physiological needs were “Exercises to do during pregnancy", this outcome in same line with study by **Tinius et al., (2020)** who conducted study about "Effect of Evidence-Based Materials and Access to Local Resources on Physical Activity Levels, Beliefs, and Motivation During Pregnancy in a Rural Setting" and reported the most studied pregnancy in rural area had unmet.

The similarities between two studies may be due to lack of social clubs in rural for exercise especially for women, additionally, teenage pregnancy had concept prenatal exercises increases the risk of miscarriage and preterm birth, fatigue or harm to the fetus.

Regarding to required nutrition during pregnancy, the current study presented that more than two thirds of the studied sample had unmet needs required nutrition during pregnancy, this finding agree with **Goli et al., (2015)** who studied "The effect of early marriages and early childbearing on women’s nutritional status in India" and showed that majority of studied sample reported that had malnourished due to unmet needs required nutrition during pregnancy.

Additionally, this result supported with **Diana, & Ranchman, (2020)** who studied " Nutrition intervention of pregnant adolescents: a systematic review" and concluded that highest percentage of the studied sample had unmet needs required nutrition during pregnancy. From researcher point view, this result might due to low level of education and economic status of the household.

According studied sample's total physiological needs, the present study revealed the less than three quarters of the studied sample had unmet physiological needs, this finding agree with **Kim et al., (2020a)** who studied "Unmet healthcare needs and associated factors in rural and suburban Vietnam" and showed that highest percentage of studied pregnant had unmet physiological needs.

The similarities between two studies may be due to the teenage mothers were less careful about their pregnancy probably because of the lack of awareness and maturity.

Regarding to psychological needs the present study revealed that the most unmet psychological needs were “Recognize the normal psychological changes during pregnancy & prepare for the role of the mother" this result agree with **Kumari, (2020)** who conducted study about "Emerging needs of successful pregnancy: Physiological development and psychological changes" and proved that the studied pregnancy had psychological changes and reported that not meet their psychological needs. The similarities between studies may be due to society's belief that pregnancy is a natural stage that does not need psychological support.

Moreover, this result supported by **Bjelica et al., (2018)** who conducted study about "The phenomenon of pregnancy—A psychological view" and presented that young pregnancy had unmet psychological needs toward Prepare for the role of the mother. The similarities between studies may be due to lack of awareness and maturity

Regarding to total psychological needs, the present study revealed that the less than half of studied sample had unmet psychological needs, This outcome agree with **Kiaeni et al., (2019)** who studied "Adolescent pregnancy: a health challenge" and proved that unmet psychological needs of pregnant teenagers can be greater than those of other women.

From researcher point view, Early childbearing can increase risks for newborns, as well as young mothers in rural babies born to mothers under 20 years of age face higher risks of low birth weight, preterm delivery, and severe neonatal conditions lead to psychological pressure.

Concerning to social needs, the present study showed that the most unmet social needs were “Over available time to participate in community activities, this outcome harmony with result by **Okafor, & Ter Goon, (2020)** who conducted study about "Physical activity and exercise during pregnancy in Africa:" and reported that the majority of the studied pregnant not share in community activities. The similarities between studies may be due to culture norms of community

The present study revealed that less than one third of the studied pregnant females had unmet needs toward availability safe and comfort transportation for regular follow-up of pregnancy, this finding was agree with **Kim et al., (2020b)** who conducted study about. "Unmet Healthcare Needs and Associated Factors in Rural Vietnam: A Cross-Sectional Study" and showed that less than one third of the studied pregnant females reported that Reasons for not using health services was Transportation.

Concerning to total social needs, The present study showed that more than two thirds of the studied pregnant had unmet social needs this outcome in same line with **Salami et al., (2014)** who conducted study about "Unmet social needs reported that the majority of the studied pregnancy and teenage pregnancy in Ogbomosho, South-western Nigeria" and had unmet social needs.

Regarding total needs of the studied teenager pregnant, the present study Revealed that majority of the studied sample reported that all their needs were unmet. This finding was agree with **Yasuoka et al., (2018)** who studied " Barriers for pregnant women living in rural, agricultural villages to accessing antenatal care in Cambodia: a community-based cross-sectional study combined with a geographic information system" and reported that highest percentage of the studied pregnant had unmet needs.

Concerning to attitude regarding unmet needs, the current result displayed that all studied sample had positive attitude toward " Teenage pregnant women have special needs", this finding Similar finding was reported **by El Sayid et al., (2018)** who conducted study about "Adolescents Pregnant Women Perception Regarding Safe Pregnancy in Rural Areas" and concluded that Teenage pregnant women have special needs.

Moreover, the present study reflected that all studied sample agree to Failure to meet the physiological needs of a teenage pregnant woman will affect pregnancy outcome, this result accordance with **Abbas et al., (2017)** and showed the Failure to meet the physiological needs of a teenage pregnant woman will affect pregnancy outcome .

The present study indicated that the majority of studied sample had positive attitude of regarding their unmet needs, this finding in same line with **Hassanain et al., (2011)** who studied "Assessment of female adolescent Reproductive health needs in Assiut city" and reported that the highest percentage of studied sample had positive attitude toward unmet Reproductive health needs.

Moreover, this result supported by **Hall et al., (2017)** who showed that attitudes towards motherhood should be considered in a broad context, including the physical and mental health of women.

On other hand, this results disagreed with **Bałanda-Bałdyga et al., (2020)** who studied "Attitudes of Teenage Mothers towards Pregnancy and Childbirth" and reported that the majority of teenage pregnancy had positive attitude toward pregnancy.

Conclusion:

In the light of the current study findings, it is concluded that majority of the studied rural teenage pregnant female's their total physical, psychological and social needs were unmet. Moreover, majority of the studied rural teenage pregnant female had positive attitude concerning effect of their unmet needs on their over-all health and pregnancy out-come.

Recommendations:

- Establish pre conception counseling program to meet rural teenage pregnant female needs.
- Prenatal health classes should be implemented, at antenatal clinics and Maternal and Child Health centers, regarding teenage pregnancy and its consequences.
- Development of tell communication mobile app for teenage pregnant female to improve their knowledge and attitude about their needs.
- Further researches regarding rural teenage pregnant female unmet needs on other setting in order to generalize the results.

References:

Abbas AM, Abdelbadee AY, Amin MT, Abdelrahman RM, Tolba SM, Abdelkarim AR, Shahin AY and Salman SA (2016): Emergency peripartum hysterectomy in a tertiary hospital in Upper Egypt: six years analysis. Int J Reprod Contracept Obstet Gynecol; 5(4):953-958.

Abbas, S., Sultana, F., Yousfani, S., & Hasan, T. (2017). Adverse Outcome of a Teenage Pregnancy. J Liaquat Uni Med Health Sci, 15(04), 179-82.

Abd Elmoneem El Sayid, Hemat, Mona Abo Baker Abd Ellatef, and Rasha Saad Abd El Aziz. "Adolescents Pregnant Women Perception Regarding Safe Pregnancy in Rural Areas." ***Egyptian Journal of Health Care*** **9.4 (2018):** 577-591

Abdelsattar M (2016): Teenage pregnancy in Upper Egypt. Int J Adv Res Biol Sci; 3(4):35-41.

Ahinkorah, B. O., Kang, M., Perry, L., Brooks, F., & Hayen, A. (2021). Prevalence of first adolescent pregnancy and its associated factors in sub-Saharan Africa: A multi-country analysis. Plos one, 16(2), e0246308.

Anoua A, Sow M, Ouattara Z, &Kepo K., (2020). Community Action in the Fight Against Adolescent Pregnancy in the Village of Anono, Southern Côte d'Ivoire, International Journal of Research in Sociology and Anthropology (IJRSA). Volume 6, Issue 3, 2020, PP 16-26.

Bałanda-Bałdyga, A., Pilewska-Kozak, A. B., Łepecka-Klusek, C., Stadnicka, G., & Dobrowolska, B. (2020). Attitudes of Teenage Mothers towards Pregnancy and Childbirth. International journal of environmental research and public health, 17(4), 1411.

Bjelica, Artur, et al. "The phenomenon of pregnancy—A psychological view." ***Ginekologia polska*** **89.2 (2018):** 102-106.

Diana, R., & Rachmah, Q. (2020). Nutrition intervention of pregnant adolescents: a systematic review. Nutrition & Food Science. Nutrition & Food Science Vol. 51 No. 2, 2021 pp. 234-243

Eldaboly, Salma A., et al. "Prevalence and outcome of teenage pregnancy among attendants of labour room in Bassion general hospital-Egypt (cross section study)." ***Journal of Recent Advances in Medicine*** **2.2 (2021):** 166-172

Goli, S., Rammohan, A., & Singh, D. (2015). The effect of early marriages and early childbearing on women's

Grønvik T, Sandøy IF. Complications associated with adolescent childbearing in Sub-Saharan Africa: A systematic literature review and meta-analysis. PLoS One. 2018;13(9):e0204327.

Hall, K.S.; Dalton, V.K.; Zochowski, M.; Johnson, T.R.B.; Harris, L.H. (2017). Stressful Life Events Around the Time of Unplanned Pregnancy andWomen's.

Hassanain, R. A., Mohamed, S. N., Ahmed, N. H., & Rahim, M. S. A. (2011). Assessment of female adolescent Reproductive health needs in Assiut **city. Journal of American Science, 7(8), 207-20.**

Helina H, Hoty RN, Betty L and Broom RN (2016): The Journal of school Nursing 2016 18:1, 11-17.

Johnson CL (2016): Adolescent pregnancy: Intervention into the poverty cycle. Adolescence, 9:391-406.

Johnson CL (2017): Adolescent pregnancy: Intervention into the poverty cycle. Adolescence, 9:391-406.

Kiani, Mohammad Ali, Masumeh Ghazanfarpour, and Masumeh Saeidi. "Adolescent pregnancy: a health challenge." ***International Journal of Pediatrics*** **7.7 (2019):** 9749-9752.

Kim, J. Y., Kim, D. I., Park, H. Y., Pak, Y., Tran, P. N. H., Thai, T. T., & Dung, D. V. (2020a). Unmet healthcare needs and associated factors in rural and suburban Vietnam: a cross-sectional study. International journal of environmental research and public health, 17(17), 6320.

Kumari, A., & Parihar, B. (2020). Teenage pregnancy-its impact on maternal and fetal outcome. International journal of scientific study, 1(6), 9-13.

Loaiza, E. and Liang, M., 2019. Adolescent pregnancy: a review of the evidence.

nutritional status in India. Maternal and child health journal, 19(8), 1864-1880.

Okafor, Uchenna Benedine, and Daniel Ter Goon. "Physical activity and exercise during pregnancy in Africa: a review of the literature." BMC Pregnancy and Childbirth 20.1 (2020): 1-17.

Omoro, T., Gray, S. C., Otieno, G., Mbeda, C., Phillips-Howard, P. A., Hayes, T., ... & Gust, D. A. (2018). Teen pregnancy in rural western Kenya: a public health issue. International Journal of Adolescence and Youth, 23(4), 399-408.

Salami, K. K., Ayegboyin, M., & Adedeji, I. A. (2014). Unmet social needs and teenage pregnancy in Ogbomosho, South-

western Nigeria. African health sciences, 14(4), 959-966.

Shkurko, T. A. (2014). Socio-psychological needs of parents and characteristics of relationships in family. Procedia-Social and Behavioral Sciences, 146, 477-482.

Singh S. Adolescent childbearing in developing countries: a global review. Studies in Family Planning, 2018, 29:117–136.

Subedi, A., Shrestha, J., Shrestha, A., & Gurung, S. (2018). Maternal and perinatal outcome of teenage pregnancy in a tertiary care centre. Nepal Journal of Obstetrics and Gynaecology, 13(1), 26-29.

Sully EA, Atuyambe L, Bukenya J, Whitehead HS, Blades N, Bankole A. Estimating abortion incidence among adolescents and differences in postabortion care by age: a cross-sectional study of postabortion care patients in Uganda. Contraception. 2018;98(6):510–6.

Tinius, Rachel, et al. "Effect of Evidence-Based Materials and Access to Local Resources on Physical Activity Levels, Beliefs, and Motivation During Pregnancy in a Rural Setting." ***Journal of Physical Activity and Health*** **17.10 (2020):** 947-957.

Vikat A, Rimpela A, Kosunen E and Rimpela M (2017): Sociodemographic differences in the occurrence of teenage pregnancy in Finland in 1987–1998: a follow-up study. J Epidemiol Community Health, 56(9):659–68.

WHO. Global AcceleratedAction for the Health of Adolescents (AA-HA!): Guidance to support country implementation. Geneva: WHO; 2017

WHO. Global health estimates 2015: deaths by cause, age, sex, by country and by region, 2000–2015. Geneva: WHO; 2016.

Yasuoka, J., Nanishi, K., Kikuchi, K., Suzuki, S., Ly, P., Thavrin, B., ... & Mizutani, T. (2018). Barriers for pregnant women living in rural, agricultural villages to accessing antenatal care in Cambodia: a community-based cross-sectional study combined with a geographic information system. PLoS One, 13(3), e0194103.