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Original Article

Health Professional's Knowledge and Attitude Regarding Adolescent Pregnancy Care in Primary Health Care Centers in Erbil City

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ABSTRACT

Background and objectives: The World Health Organization defines adolescent pregnancy as pregnancy in which the mother is under the age of 20 at the time the pregnancy ends. About 16 million girls aging between 15 and 19 years give birth every year. The study aimed to assess the level of knowledge and attitude among nurses and physicians in Erbil Primary Health Care Centers regarding adolescent pregnancy care and comparing them.

Methods: A quantitative; descriptive cross-sectional study was conducted in maternal and child health care units at twenty three Primary Health Care Centers in Erbil city, between November 15th , 2018 and November 15th , 2019. Non-probability, Convenience sampling technique was used for selecting sample which includes 95 from the total of 100 health professionals. Data was collected through interview (face to face) by using questionnaire form which was designed by the investigator. Data were analyzed using the Chi square test, Fisher's exact test.

Results: Health professionals mean age + SD was 41.95 + 8.40 years, ranging from 27 to 62 years. The median was 42 years. Less than half (42.1%) of the sample were nurses, and the rest were physicians of different specialties. The highest percentage of the nurse's knowledge and attitude were in medium level (42.5% and 47.5%, respectively). The highest percentage of physician's knowledge and attitude were in high level (58.3% and 65.5% respectively). There were significant difference between them regarding their knowledge ($p = 0.32$) and attitude ($p = 0.006$).

Conclusions: Health professionals working in maternal and child health care units need improving their knowledge and attitude regarding adolescent pregnancy care. Nurses need more information and training sessions regarding that.

Key words: Adolescent Pregnancy; Health Professional; Knowledge; Attitude.

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INTRODUCTION

Adolescence (meaning "to grow up") is a transitional phase of physical and psychological human development that usually occurs for the duration of the time starting puberty to legal adulthood [1], a time of serious social, emotional, economic, and biological alteration [2].The World Health Organization (WHO) explained adolescence as the change from childhood to adulthood which may be referred to as 'adolescence' or 'teenage', which is a time between 10-19 years. This is the period when structural, functional, and psychosocial developments occur in an adolescent to organize her for assuming the responsibility of motherhood [3]. Also, defines adolescent pregnancy as the pregnancy in which the mother is below the age of 20 at the time the pregnancy completes [4]. WHO stated that around 16 million adolescents aging between 15 and 19 years and approximately one million adolescents younger

than 15 years present birth each year [5].The Central Bureau of Iraqi Statistics (2011) showed that 5% of Iraqi adolescents were married prior to the age of 15 years while about 22% of Iraqi adolescents were married before they turned 18. The problem of adolescent childbearing in the Kurdistan region- Iraq is currently to be sufficiently researched and recognized in order to be successfully addressed through encouragement and policy recommendations [6]. The majority were between 15 and 19 years. The Directorate of Health in Erbil/ Iraq registered approximately 770 per 25330 adolescent pregnancies in 2018 [7]. Adolescent pregnancy is allied with progression of maternal and fetal complications. Anemia, pre-eclampsia, eclampsia, preterm delivery, instrumental delivery, and increased Lower Segment Caesarian Section (LSCS) rate due to Cephalopelvic Disproportion (CPD) are strongly associated maternal complications in adolescent pregnancy. Fetal complications being prematurity, low birth weight, still birth, asphyxia, respiratory distress, birth trauma. Immature pelvis in adolescents makes them prone to have CPD and end up in caesarean delivery [8]. While the amount of adolescent pregnancies has already declined, there is still vast need for maintaining [9]. Physicians and nurses have responsibility for caring of a pregnant adolescent with distinctive characteristics of the adult pregnant. They require to be aware of the physical, emotional and social changes experienced by adolescents, the property that they have and what their ways of coping with these situations [10].The study aimed to assess the level of knowledge and attitude among physicians and nurses in Erbil primary health care centers regarding adolescent pregnancy care and comparing them.

METHODS

A quantitative, descriptive cross-sectional study was conducted between November 15, 2018 and November 15th, 2019. All eligible sample was involved which include 95 from total of 100 health professionals (55 physicians and 40 nurses) working in maternal and child health care units five of them drop out samples (one of them was take sick leave, two of them were take study leave and the rests were take maternity leave and they were excluded in the study) at twenty three primary health care centers in Erbil city. According to the study's inclusion and exclusion criteria; all of those health professionals (nurses and physicians) that work in maternal and child health care departments at Primary Health Care Centers in Erbil city regardless of educational level were included and those of health professionals that they were not available at the time of data collection were excluded. Data was collected through interview (face to face) by using questionnaire format which was designed by the investigator through massive review of the literature and it was included three parts (first part an interviewing questionnaire which included socio-demographic characteristics of study sample. Second part was structured knowledge questionnaire consists of 33 questions related to knowledge regarding adolescent pregnancy care. There were three responses for items as following: I don't know 0 score, no 1 score and yes 2 score. The maximum score on knowledge items was 66. The levels of knowledge were categorized as following:
Low knowledge level ≤ 50%;Medium knowledge level = 51-75%;High knowledge level ≥ 75%. The third part was structured attitude questionnaire consists of 11 questions related to attitude towards of health professionals regarding adolescent pregnancy care. There were three responses for items as the following: disagree

score 1, neutral score 2 and agree score 3 from the item 1 to 9, for the items 10 and 11 responses were agree score 1, neutral score 2 and disagree score 3 . The different levels of attitude are categorized as: Low attitude level ≤ 50%;Medium attitude level = 51% - 75%;High attitude level ≥ 75%. [Sapkota, 2017] Ethical approval was obtained from ethical committee at the college of nursing. Hawler Medical University (HMU) with serial number 73 at 23/6/2019. The informed oral consent was taken from the health professionals to participate in the study, after confirmation of confidentiality, anonymity and participants self-determination by the researcher. Formal permission was also obtained from Erbil Directorate of Health and Primary Health Care Centers (PHCC) in Erbil city. Data were analyzed by using the Statistical Package for Social Sciences (SPSS, version 22) through frequency, percentage, Chi square test of association was used to compare proportions, and Fisher's exact test was used when the expected count of more than 20% of the cells of the table was less than five. A p value of ≤ 0.05 was considered statistically significant.

RESULTS

Ninety five health professionals (40 nurses and 55 physicians) had been included in the study. Their mean age + SD were 41.95 + 8.40 years, ranging from 27 to 62 years. The median was 42 years. Less than half (42.1%) of the sample were nurses, and the rest were physicians of different specialties like (obstetrician and gynecologist, family medicine, general practitioner, and nurses) those are working in (MCH). Regarding the educational level, more than one third (35.7%) of the sample were holding the Bachelor of Medicine, Bachelor of Surgery/ Chirurgery degree, and 28.4% were graduates of the nursing institute. More than 90% of the studied samples answered 'yes' for the following knowledge statements: Pregnant adolescents need advice by nutritionist, pregnant adolescents should have a nutritional assessment, pregnant adolescents should have vitamin and food, untreated maternal depression in adolescent pregnant women is associated with adverse maternal, neonatal, and childhood outcomes, and taking information from pregnant adolescents about her location, family, financial, and her level education are very important. The other knowledge statements are presented in Table 2.

Table 1: Socio-demographic characteritics of the study sample

Age	No.	(%)
< 40	34	(35.8)
40-49	42	(44.2)
≥ 50	19	(20.0)
Mean (+ SD)	41.96	(+ 8.40)
Title		
Nurse	40	(42.1)
Obstetrician/gynecologist	23	(24.2)
General practitioner (GP)	13	(13.7)
Family physician	11	(11.6)
GP (gynecology)	8	(8.4)
Years of experience in MCH		
1- 4	25	(26.3)
5-9	24	(25.3)
10-14	22	(23.2)
≥ 15	24	(25.3)
Educational level		
Bachelor of Medicine, Bachelor of Surgery/Chirurgery degree	34	(35.7)
Higher diploma	8	(8.4)
Master	10	(10.5)
Board	3	(3.2)
Secondary nursing school	13	(13.7)
Nursing institute	27	(28.4)
Total	95	(100)

Table 2: Knowledge about adolescents' pregnancy care

Questions related to knowledge	I don't know		No		Yes	
	No.	(%)	No.	(%)	No.	(%)
Adolescent pregnancy is a pregnancy in a women aged of 10-19 years.	11	(11.6)	12	(12.6)	72	(75.8)
Adolescent mothers face higher risk of abortion	6	(6.3)	12	(12.6)	77	(81.1)
Adolescent mothers face higher risk of still birth	13	(13.7)	23	(24.2)	59	(62.1)
Adolescent mothers face higher risk of cesarean section	10	(10.5)	22	(23.2)	63	(66.3)
Adolescent pregnancy has higher risk for gestational diabetes than adult pregnant women	11	(11.6)	57	(60.0)*	27	(28.4)
Adolescent mothers face lower risks of eclampsia than women aged 20 to 24 years	10	(10.5)	37	(38.9)*	48	(50.5)
Adolescent mothers face lower risks of puerperal endometritis than women aged 20 to 24 years	18	(18.9)	44	(46.3)*	33	(34.7)
Adolescent mothers face lower risks of systemic infections than women aged 20 to 24 years	12	(12.6)	52	(54.7)*	31	(32.6)
Adolescent pregnancy has higher risk for placenta previa than adult pregnant women	21	(22.1)	38	(40.0)*	36	(37.9)
Adolescent pregnancy has higher risk for abruption of placenta than adult pregnant women	21	(22.1)	30	(31.6)*	44	(46.3)
Adolescent pregnancy has higher risk for oligohydraminos than adult pregnant women	19	(20.0)	34	(35.8)	42	(44.2)
Adolescent pregnancy populations has higher risk of intrauterine growth restriction (IUGR) than adult pregnant populations	10	(10.5)	17	(17.9)	68	(71.6)
In adolescent pregnancy Iodine deficiency can cause brain damage of the fetus	27	28.4)	18	(18.9)	50	(52.6)
Adverse fetal outcomes of adolescent mothers is low birth weight	14	(14.7)	15	(15.8)	66	(69.5)
Adverse fetal outcomes of adolescent mothers is preterm delivery	10	10.5)	18	(18.9)	67	(70.5)
Adverse fetal outcomes of adolescent mothers is birth trauma and injury	21	(22.1)	20	(21.1)	54	(56.8)
Complications during pregnancy and delivery are the leading causes of death for women aged 15 to 19	13	(26)	56	(13.7)	27.4	(58.9)
Complications during pregnancy and delivery are the leading causes of death for adolescents than women in their 20s.	14	(14.7)	26	(27.4)	55	(57.9)
Gentle prenatal exercise helps strengthen the body and increase stamina to prepare for labor and delivery	7	(7.4)	8	(8.4)	80	(84.2)
Pregnant adolescents need advice by nutritionist on healthy eating during pregnancy	0	(0)	0	(0)	95	(100)
Anemia (hemoglobin < 105 g/L) is a very common complication in pregnant adolescents	3	(3.2)	15	(15.8)	77	(81.1)
Pregnant adolescents should have a nutritional assessment	0	(0)	3	(3.2)	92	(96.8)
Pregnant adolescents should have vitamin and food	0	(0)	4	(4.2)	91	(95.8)
Adolescent pregnancy visits to primary health care centers in the second or third trimester should be more frequently	2	(2.1)	12	(12.6)	81	(85.3)
Psychological distress is associated with adolescent pregnancy	9	(9.5)	14	(14.7)	72	(75.8)
Adolescent pregnancy are more likely to have mood disorders (depression) than adult pregnant women or non-pregnant adolescent	10	(10.5)	15	(15.8)	70	(73.7)
Untreated maternal depression in adolescent pregnant women is associated with adverse maternal, neonatal, and childhood outcomes	4	(4.2)	5	(5.3)	86	(90.5)
Untreated maternal depression in adolescent pregnant women is also associated with post partum depression	10	(10.5)	5	(5.3)	80	(84.2)
The psychological needs of pregnant adolescent women can be greater than of other women	3	(3.2)	9	(9.5)	83	(87.4)
Adolescent pregnancies are more likely to experience violence within marriage	11	(11.6)	6	(6.3)	78	(82.1)
The social needs of pregnant adolescent women can be greater than of other women	8	(8.4)	11	(11.6)	76	(80)
Taking information from pregnant adolescents about her location, family, financial, and her level education are very important.	4	(4.2)	5	(5.3)	86	(90.5)
Adolescent parents should be included as much as possible in adolescent pregnancy care prenatal/infant care	7	(7.4)	4	(4.2)	84	(88.4)

*The correct response is 'No'. For the other questions, the correct response is 'Yes'.

It is evident in Table 3 that 91.6% of health care providers believe that the adolescent pregnant need special care, 83.2% believe that adolescent pregnancy is more predominant (95%) in less educated populations, 84.2% believe that adolescent pregnancy is more predominant (95%) in societies that accept and encourage childhood marriage.

The other responses are presented in Table 3.Table 4: Shows that 58.2% of the physicians had high knowledge scores compared with 35.0% of the nurses (p = 0.032). Around two thirds (65.5%) of the physicians had high attitude scores which was significantly higher than the rate (32.5%) among nurses (p = 0.006).

Table 3: Attitudes towards adolescents' pregnancy

	Disagree		Neutral		Agree	
Attitudes	**No.**	**(%)**	**No.**	**(%)**	**No.**	**(%)**
It is better that adolescent to postpone pregnancy.	6	(6.3)	16	(16.8)	73	(76.8)
Adolescent pregnancy is more predominant (95%) in less educated populations.	5	(5.3)	11	(11.6)	79	(83.2)
Adolescent pregnancy is more predominant (95%) with low to middle income populations.	7	(7.4)	21	(22.1)	67	(70.5)
Adolescent pregnancy is more predominant (95%) in societies that accept and encourage childhood marriage	5	(5.3)	10	(10.5)	80	(84.2)
Medical risks are associated with adolescent pregnancy.	6	(6.3)	17	(17.9)	72	(75.8)
Knowledge of adolescent pregnancy about sex increases with age.	8	(8.4)	14	(14.7)	73	(76.8)
Parents should be responsible for teaching their children about sex.	14	(14.7)	12	(12.6)	69	(72.6)
Adolescent pregnant need help for decision from her parents regarding the pregnancy.	21	(22.1)	16	(16.8)	58	(61.1)
Adolescent pregnant need special care.	2	(2.1)	6	(6.3)	87	(91.6)
Adolescent pregnancy is normal as in adult.	67	(70.5)*	16	(16.8))	12	(12.6)
Adolescents can adapt with pregnancy and contract with problems easily.	51	(53.7)*	23	(24.2)	21	(22.1)

*Disagree is the correct response. For all the other statements, 'agree' is the correct response.

Table 4: Knowledge and attitudes' scores of physicians and nurses

	Nurses		Physicians		Total		
Knowledge score	**No.**	**(%)**	**No.**	**(%)**	**No.**	**(%)**	**P**
Low	9	(22.5)	4	(7.3)	13	(13.7)	
Medium	17	(42.5)	19	(34.5)	36	(37.9)	
High	14	(35)	32	(58.2)	46	(48.4)	0.032
Attitude score							
Low	8	(20)	5	(9.1)	13	(13.7)	
Medium	19	(47.5)	14	(25.5)	33	(34.7)	
High	13	(32.5)	36	(65.5)	49	(51.6)	0.006
Total	40	(100)	55	(100)	95	(100)	

*By Fisher's exact test.

DISCUSSION

The present study explored knowledge and attitude of nurses and physicians regarding adolescent pregnancy care. The study shows that the highest percentages of health professionals (physicians and nurses) have knowledge regarding adolescent pregnancy care. This result agree with a study reported by Tshitenge et al (2018) in Mahalapye, Botswana and mentioned that the majority (91.2%) of respondents have knowledge regarding adolescent pregnancy care [11].The overall attitude of health professionals (nurses and physicians) in current study revealed that 91.6% of them believed that the adolescent pregnant need special care. It is similar to the findings of Agu et al., (2017) which revealed that general attitude of the midwives towards teenage pregnancy and motherhood were more positive (44.4%) [12].this study shows that 76.8% of health professionals believe it is better that adolescent to postpone their pregnancy. This is in consistent with study done by Carter et al, (2002) to find out birth control that 82.35 % of participants were agreed to the statement of both the men and women are responsible for using birth control [13]. It's evident in the present study that 72.6% of health professionals believe that parents should be responsible for teaching their children about sex. This is in contrast to the results of the study by Carter et al, (2002) that 82.35 % of the respondents were strongly disagreed of these statements [13].Result of our study showed that 61.1 % of health professionals agreed with the statement of adolescent pregnant need help for decision from her parents regarding the pregnancy. It's disagreed to finding of the study done by Carter et al, (2002) that 60 % of participants were strongly disagreed with this statement [13].The result of present study showed that most participants were agreed for statements of adolescent pregnancy is more predominant (95%) in less educated populations, adolescent pregnancy is more predominant (95%) with low to middle income populations and adolescent pregnancy is more predominant (95%) in societies that accept and encourage childhood marriage by (83.2 % , 70.5 %, and 84.2 %). This consistent to the results of study that done by Mangeli et al, (2017) on Iranian adolescent mothers to determine the challenges that facing them during the transition to motherhood; they reported in their study that one of the main challenges that adolescent mothers faced was ineffectiveness they were not able to take care from insufficient education of their family [14]. The other study was done by Papri 2016 reported that there were some factors that increase pregnancy among adolescents; teenage pregnancy is often occurs in a family with lower socioeconomic status, low educational attainment [15]. The result of our study revealed that 75.6 % of health professionals were agreed to the statement on medical risks is associated with adolescent pregnancy. Is consistent with the results of the study that done by Azevedo et al, (2015) they were studied systemic literature review to determine complications related to adolescent pregnancy in the finding of the study they were reported that the abortion, Hypertensive pregnancy disorders, lower urinary tract infections, premature rupture of membranes and placenta previa occurred more frequently in adolescent pregnancy [16]. According to professionals' attitudes toward the statement of adolescents can adapt with pregnancy and contract with problems easily; more than half 53.7 % of health professionals were disagreed with this statement.

This agreed to the finding of the study that done by Yahya, (2016); he pointed that most of the teenage mothers had less preparation to cope and adapt to the roles of parent. Their ability to cope with the stresses of teen parenthood and their limited knowledge of appropriate child rearing skills affected their psychological well-being. This is because stress is assumed to place individuals at increased risk for depression, anxiety, and other emotional problems [17].The present study reveals that 58.2% of the physicians had high knowledge scores compared with 35.0% of the nurses (p = 0.032). This agreed to the finding of the study that done byMasonbrink et al, (2019) reported that most respondents had insufficient knowledge regarding adolescent's reproductive health care (59%) [18]. This study is also consistent with the other study was done on adolescent mothers and health centers staff by Sychareun et al. (2018) they were reported that adolescent mothers reported in their study, low utilization of sexual and maternal health services was common, and adolescent specific services were unavailable. This was also corroborated by the healthcare workers, who reported low uptake off sexual and reproductive health services [19]. The present study also agreed with the other study that done by Hellerstedit et al. (2019) revealed that knowledge of nurses regarding adolescent pregnancy were 39 % [20].The current study shows that around two thirds (65.5%) of the physicians had high attitude scores which was significantly higher than the rate (32.5%) among nurses (p = 0.006). this agreed to the finding of study that done by Govender et al, (2018) exposed that nurses had poor attitude toward adolescent pregnancy care [21]. This also agreed with the study done by Sychareun et al., (2018) revealed that providers themselves recognized that they were often uncertain of how to deal with pregnant adolescents and said they sometimes found them very frustrating to deal with [19].

CONCLUSION

The results of the study indicated that physician's knowledge and attitude regarding adolescent pregnancy care were more than nurse's knowledge and attitude regarding adolescent pregnancy care. Health professionals working in maternal and child health care units must improve their knowledge and attitude regarding adolescent pregnancy care. Nurses need more information and training sessions regarding this topic.

CONFLICT OF INTEREST

There is no actual or potential conflict of interest.

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