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THE KNOWLEDGE, ATTITUDE AND PRACTICE (KAP) AMONG SAUDI WOMEN REGARDING RECURRENT PREGNANCY LOSS

Dr. Poonam Tyagi[1]*, Dr. Dalia Hamouda[2] and Abeer Ali El Sherbiny Ateya[3]

[1]*Ph. D, Assistant Professor, Department of Clinical Lab Sciences, College of Applied Medical Sciences, Prince Sattam bin Abdulaziz University, Al kharj, Saudi Arabia.
[2]Ph. D, Assistant professor, Department of Clinical Lab Sciences, College of Applied Medical Sciences, Prince Sattam Bin Abdul aziz University, Al Kharj, Saudi Arabia and Researcher, Department of Medical Biotechnology, Institute of Genetic Engineering, City of Scientific research and biotechnological Applications, Borg El Arab Alexandria, Egypt.
[3]Ph. D, Assistant Professor, Department of Clinical Lab Sciences, College of Applied Medical Sciences, Prince Sattam Bin Abdulaziz University, Al Kharj, Saudi Arabia.

***Corresponding Author: Dr. Poonam Tyagi**
Ph. D, Assistant Professor, Department of Clinical Lab Sciences, College of Applied Medical Sciences, Prince Sattam bin Abdulaziz University, Al kharj, Saudi Arabia.

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ABSTRACT
The pregnancy termination rate within the first 20 weeks is approximately 15-20%.[1] It might be due to lack of knowledge and awareness and ignorance of some preventive steps. The aim of this study was to examine the knowledge, attitude and practices of married women regarding miscarriage. In addition, to understand their experience and investigate the possible reasons and precautions to avoid miscarriage in future. Methodology consisted in recording an online survey of three main parts of questions related to the knowledge, attitude and practice in relation of miscarriage. We assessed information of 337 women collected at various hospitals, Al-Kharj region of Riyadh, Saudi Arabia through filling a standard formatted questionnaire form. Result of our study showed that more than 50% participants had knowledge and answered in positive way. Six questions asked to examine attitude of participants, more than 60% replied positively, and 93% accept that lifting heavy objects might be a reason of miscarriage. Only 33% participants were aware that previous use of contraceptives can be a reason for miscarriage. Only 61% agreed that past STD might be a reason of miscarriage. Six questions asked related to practices, 46 % participants replied that they had abortion at home while 54% aborted at hospital after some complication. 61% women took help of doctor while 31% agreed that during this condition they got help from a family member at home.

KEYWORDS: Pregnancy; Miscarriage; knowledge; Awareness.

INTRODUCTION
Miscarriage, early pregnancy loss or spontaneous abortion is defined as the termination of pregnancy before 20 weeks of gestation or fetal weight being less than 500g and approximately 15-20% of clinically confirmed pregnancies abort within the first 20 weeks usually within the first trimester.[2] Almost 70% of pregnancy termination takes place within the first 2-4 weeks of pregnancy and actual reason concluded as chromosomal abnormalities.[3] Presently, huge number of pregnancy loss occurs but investigations generally not recommended in maximum of cases to confirm the exact reason until the woman diagnosed as suffering from recurrent miscarriage. However, it is not the number of abortions that influences the diagnostic and therapeutic response to a couple suffering from miscarriage; but also influence by the age of the women, the level of anxiety and depression as well as so many different factors promptly trackable in the family/medical history that might be influencing towards a recurrent miscarriage.[2] Many women are liable to have a miscarriage in their life, because of a lot of unidentifiable components that may affect the possibility of losing a baby in the early weeks of gestation. It might be due to deprivation of proper knowledge, awareness and ignorance of some preventive steps that might cause miscarriage in the coming time during the term of pregnancy. It can be very depressive for a woman if going through miscarriage and losing her baby. A miscarriage generally occurs either accidentally or sometimes uncontrollable reasons and nothing can be done to prohibit it. Maximum women who experienced a miscarriage will might be going on to have a healthy and successful pregnancy in the coming future.[4] In few cases the mother condition might lead to miscarriage, like uncontrolled diabetes, infection, hormonal problems and others, also there is many attitudes that can be leading to miscarriage, like routine

activities, mental status and behavior. Measurement of feelings of miscarriage cannot be calculated in right way as it is different and may vary person to person. Some magnitude of distress is very common, even if the pregnancy wasn't planned. Spouse and family members can also react differently with changing emotions, same like people respond differently to a continuing pregnancy. Sensitivity and emotions of causality may remain for some time and patient may have doubtful feelings about becoming pregnant again. Some friends and family members may not understand the depth of emotion for an upcoming pregnancy and may foolishly expect you to move on before you are ready. Couples have different opinions and behave differently and take decisions like, some want to try for a pregnancy straight away, while others require time to regulate their damage.[5]

The study to identify and understand the right cause and some physical factors causes miscarriage is very important to know which factor led to lose the baby in early pregnancy and what are the precautions that should have been followed to prevent this event. Countless women in this world are suffering from recurrent miscarriage. Sometimes this critical issue can be easily prevented and handled by taking care and avoiding some circumstances after their identification. To determine the cause of losing a baby first we should be able to understand what are the behaviors that has been done wrong to cause this event, how the factors work together or alone to cause a miscarriage.

Keeping all these factors in our mind we have designed this research study to understand and check the knowledge, attitude and practices of child bearing age group women about the miscarriage as well as to investigate the possible reasons of miscarriage and precautions to avoid miscarriage in future in the kingdom of Saudi Arabia specifically in Riyadh region.

MATERIAL AND METHODS

This research study was conducted in Department of Medical Laboratory Sciences, College of Applied Medical Sciences at Prince Sattam Bin Abdulaziz University, Al Kharj region of Riyadh, Saudi Arabia. A total of 337 women included in this research study. These participants responded by answering a standard questionnaire form either online or we approached them personally at Al-Kharj region of Riyadh. Our survey consisted of three main parts of questions, directly related to the Knowledge, Attitude and Practice in relation of miscarriage. Each part of this subject contained almost 5-7 questions. Questionnaire format was designed to estimate the percentage of participants having a proper knowledge of miscarriage, if they had gone through this condition and having a bad experience of losing a baby. When was it happened, what were the possible reasons that led to this crucial condition and what is their opinion about? Could have they saved their babies if knowing well about some precautions or followed some steps that has to be taken on time but they were not aware about or any other possible reason if they have in their brain.

Our research study also planned to intercept participants if they had a medical help or any kind of other support like emotional or mental during the phase of miscarriage or after. Do they realize that they need more help and support from their family and relatives for getting fast recovery and overcome from this depressive condition or can console themselves by the time without support of surroundings?

RESULTS

During online survey, 337 female patients responded and shared their experience of related issue by filling the answer included in the questionnaire format. All their responses and data were recorded and analyzed to estimate their knowledge of miscarriage, their attitude during that period of time and what sort of practices they had faced in relation with miscarriage themselves before.

Questions related to knowledge

The patient's included and responded in our study, were more than 18-year-old. Out of 337 patients, 141 (41.8%) patients were in range of 18-25 yrs of age, 150 (44.5%) were in age group of 26-45 of years old and 46 (13.6%) aged more than 45 years old.

For the first part of the questionnaire which was related to the knowledge, we asked the patients if they think that age might influence the rate of miscarriage, 197(58.5%) patients answered yes while 88(26.1%) women said no and 52(15.4%) patients had no information about the relation of miscarriage with age. For the second question which was about whether if the miscarriage can be prevented or not, 197(58.5%) patients said yes it can be prevented, 65(19.3%) patients answered negative while 75(22.3%) patients said they do not know about. For the question, exposure to radiation is related to miscarriage or not, 189(58.1%) patients replied yes whereas 80(23.7%) answered no and 68(20.2%) were not aware about it. Another question was in relation to the exposure of chemical is related to miscarriage, 241(71.5%) patients agreed that chemical may casus a miscarriage, 42 (12.5%) patients said no chemical exposure is not related to miscarriage and 52(16%) patients said they do not have the knowledge about. Last question was about the knowledge of the importance of folic acid during pregnancy, a total of 277(82.2%) replied as yes, 28(8.3%) patients answered no and 32(9.5%) patients do not know that folic acid is important during pregnancy.

Table 1: Standard Questionnairre related to Knowledge.

Knowledge of miscarriage Sample size (n)= 337			
Age group	18-25	26-45	>45
	141 (41.8%)	150 (44.5%)	46 (13.6%)
The answer to the question	Yes	no	I do not know
Do you think age might influence the rate of miscarriage?	197 58.80%	88 26.10%	52 15.40%
Can you prevent miscarriage?	197 58.50%	65 19.30%	75 22.30%
Do you think exposure to radiation is related to miscarriage?	189 58.10%	80 23.70%	68 20.20%
Do you think exposure to chemical is related to miscarriage?	241 71.50%	42 12.50%	52 16%
Do you know what the importance of folic acid is?	277 82.20%	28 8.30%	32 9.50%
Do you believe that infectious disease may cause miscarriage?	208 61.70%	45 13.40%	84 24.90%

Result of questions related to Attitude

The next part of the questionnaire was regarding the attitude that may lead to miscarriage and the termination of pregnancy. This part contained of six questions and the answers to it are by Yes or No.

The first question was about if the lifting of heavy objects can cause a miscarriage, 313(92.9%) patients answered yes while 24(7.1%) patients said no. The second question was if the patient thinks that having a previous abortion may lead to a recurrent miscarriage, 192(43%) patients answered yes and 145(57%) patients answer was no. The third question was about the previous usage of contraceptive might be reason of miscarriage, 111patients agreed while 226(43%) patients answered no. The 4th question was about the genetic material of the fetus if it was abnormal a miscarriage will occur, 250(74.2%) patients said yes, a miscarriage may happen because of the abnormality of the genetic material of the fetus whereas 87(25.8%) patients believed that genetics is not a cause for miscarriage. The last question of this group is whether the long-standing stress can cause a miscarriage or not. Participants who said yes were 274 (81.3%) and 63(18.7%) disagreed.

Table-2: Standard Questionnairre related to Attitude.

Attitude that may cause pregnancy termination Sample size (n)= 337		
The answer to the question.	**yes**	**No**
Lifting heavy objects?	313 93%	24 7%
Previous abortion?	192 43%	145 57%
Previous use of contraceptive?	111 33%	226 67%
Genetic abnormality of the fetus?	250 74%	87 26%
Past sexually transmitted disease (STD)?	206 61%	131 39%
Long standing stress?	274 81%	63 19%

Result of questions related to Practices

The last part of the questionnaire stands for questions about practicing miscarriage, the first question was to determine if the participants have ever had experience of pregnancy, 168(50.1%) patients have been pregnant before while, 169(49.8%) patients were not. The next question was to know the percentage of women who had miscarriage before. 96(28.5%) patients said that they had the experience of losing a baby and 241(71.5%) patients fortunately said no. The next question was to know at what age the patients had their first abortion, 55(57%) patients their ages were between 18 and 25, while, 32(33%) patients were between 25 and 45, finally there was 9(10%) patients were older than 45 when they had their first abortion. The 4th question was about the place of the first abortion, where was it happened, in the hospital or home. Patients who said it happened at home were 44(46%) and patients whom had their first abortion

in a hospital were 52(54%). The 5th question was about the person whom performed the procedure of abortion, whether if it was a friend or family member or if it was a doctor.

Patients who had their first abortion by doctor were 58(61%), though 7 (7%) patients were by a friend and 31(32% patients were by a family member. The final question on this part was how many times the patients have miscarriage. The patients who had a miscarriage for one time were 51(53%), patients who had miscarriage for two times were 32(33%), patients who had a miscarriage for more than two times, were 13(14%).

Table-3: Standard Questionnairre related to Practices.

Practice of abortion **Sample size (n)= 337**						
Ever been pregnant?	Yes				No	
	168 (49.85%)				169 (50.14%)	
Ever had an abortion?	Yes				No	
	96 (28.48%)				241 (71.51%)	
Age at first abortion?	18-25				25-45	>45
	55 (57%)				32 (33%)	9(10%)
Where first abortion is done	home				Hospital	
	44 (46%)				52 (54%)	
Person who performed first abortion	doctor		friend		family member	
	58 (61%)		7 (7%)		31 (32%)	
Number of previous abortion (s)	1	2	3	4	4	>
	51 53%	32 33%	8 9%	4 4%	1 1%	

DISCUSSION

The aim of this research study was to evaluate the knowledge, attitude, and practices of women regarding miscarriage at Al-Kharj region of Riyadh, Saudi Arabia. We conducted a standard questionnaire survey online and through personnel interaction with women, checked their knowledge, understood the experience of miscarriage in past if they have gone through this and the practices they had taken and knew regarding.

The results showed that 28.48% women had an abortion earlier in their lives. Regarding the measures involved in knowledge part of our questionnaire, the results showed that women with a history of pregnancy loss think differently and answer shows that having less knowledge on most health-related quality of life measures in comparison to women without a history of pregnancy loss.

Our results are not similar to another research study done by Couto et al.[6] In the study, scientists reported that women with recurrent miscarriage had poorer results in all items including physical functioning, social functioning and very weak emotionally, having full body pain, general health related issues, poor mental health and vitality. However, in the present study, there were no significant differences noticed between two groups in physical function and bodily pain.

It has also been demonstrated in another research study that knowledge is directly associated with attitude and behavior consistency in women in their survey research programme.[7] It was mentioned in the previous research study that 64% women believed that the obstetrician is responsible for informing couples of possible causes of miscarriage, influenced to be having the limited knowledge and increase risk factors. The limited knowledge (35%) on miscarriage may also be associated with the negligence of behavior as well as the background and literacy level of women. Our results are also in correlation with this research study and same findings and interrelationship between the knowledge and attitude has been indicated as women has knowledge of folic acid level (82%), infections (61.7%) in relation of miscarriage and also showing their attitude about stress level (81%), genetic disorders (74%) and post STD (61%).

Present research has found widespread misconceptions about causes of miscarriage as mentioned in the previous research study[8], with common causes including a stressful event (81%), lifting a heavy object (93%), previous use of an intrauterine device or oral contraceptives (33%), Genetic abnormality of the fetus (74%), Post STD infection (61%) and finally the previous abortion (43%). Whilst there was some connection with Saudi women understandings, with both associates seeing a stressful event (81%) or lifting a heavy object (93%) as a common cause in the present study. Saudi explanations of causality also differed considerably. Participants (67%) outlined certain risky behaviors and activities that can potentially cause harm for pregnant women and suggested avoiding them. As indicated in our study, 74% women also answered yes for the reason of miscarriage might be as related to fetus abnormality genetically. STD was also in agreement of 61% of women replied for the reason. However, in light of the escalating emphasis on and rates of female employment and higher education in Kingdom of Saudi Arabia, avoiding the risks associated with work, such as

tiredness, long standing stress and physical activity can be difficult.

Our research finding supported by previous research studies, summarized that miscarriage is a remarkable physically and mentally painful and highly depressive condition. It is a mentally traumatic situation for a woman as may experience considerable and sudden pain, loss of blood and may need to be hospitalized.[9] There is advisable and requirement for improved and highly positive and emotional communication between healthcare professionals and patients to better counsel and provide proper guidance with reassurance in subsequent pregnancies.[10]

About the practices, part our findings incomparable with other research studies.[6,7,9,11] In practice, poor knowledge and conservative attitudes are important obstacles to reproductive health access, which should be acknowledged alongside more frequently emphasized barriers, including a lack of trained providers, and distance to health facilities. Our findings show very high knowledge about the importance of practicing abortion in specific circumstances, 54% women had their first abortion in the hospital and about 61% of them abortions proceeded by a doctor, which means the knowledge of practicing is almost enough.

CONCLUSION

We strongly recommend increasing more awareness among women about the knowledge, attitude and the practices regarding miscarriage. The study also indicates that the experience of miscarriage has a considerable impact on men and women including other family members. This study highlights that a thorough investigation of the underlying causes of miscarriage and continuity of care in subsequent pregnancies are priorities for those who experienced miscarriage. All related people concerned with this issue need to be empathic, sensitive and supportive to women faced with this type of loss, providing them with information and resources to deal with their loss rather than leaving them with a silent sorrow. Also consideration should be given in this manner that women who have not experienced recurrent miscarriage previously but have other potential risk factors for getting miscarriage in future could be followed up in clinical practice.

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