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Prevalence of Unplanned Pregnancy and Its Psychological Effect among Pregnant Patients in King Khalid University Hospitals

Ahmed Abdulwahab[1], Ahmad Almotairi[2], Waleed Alkhamis[2], Abdulelah Almutiari[3]

1. Obstetrics and Gynecology Department, King Saud University, King Saud University Medical City, Riyadh, 2. King Saud University, College of Medicine, Riyadh, 3. Prince Sultan Military Medical City, Riyadh, Saudi Arabia

Corresponding Author: Ahmed Abdulwahab E-mail: awkarim55@yahoo.com, Mobile No.: +966557715170

ABSTRACT

Purpose: To identify the prevalence of unplanned pregnancy and the most common associated factors that might increase the incidence along with psychological effect. **Material and methods:** Self-administrated survey was conducted among pregnant women attending obstetric clinics during January, February and March 2017 at King Khalid university hospitals. Of whom 358 answered the survey**.** SPSS version 22 was used for completed and partial completed survey entry and analysis. **Result:** Prevalence of unplanned pregnancy among pregnant women attending the clinics was (12.3%) and majority (53.1%) found to be planned. We found that there were specific significant factors (age, gravidity and parity) which could play a role in determining the pregnancy was either planned or unplanned. Unplanned pregnancy associated with minimal psychological effect or distress when compared to planned pregnancy found when applied a screening test. **Conclusion:** Unplanned pregnancy has been associated with poor outcomes to the mother and baby along with psychological effect. Increasing the level of awareness and identifying the role of contraception in preventing unplanned pregnancy need to be conducted.

Keywords: unplanned pregnancy, psychological effect.

INTRODUCTION

Unintended pregnancy is a general term that used to describe unplanned, mistimed and unwanted pregnancies[1]. Unplanned pregnancy has been associated with uncontrollable growth of population which can be considered a major health and socioeconomic problem[2]. Saudi population increased dramatically in the recent few years. for example, from 2010 till 2016 the Saudi population increased 16.54%[3]. Unplanned pregnancy has a negative impact on the family in which it is associated with poor outcomes and psychological effects on women and child lives[4,5]. Women with unplanned pregnancies are more prone to get depression and increase the desire to get abortion when compared to women with planned pregnancies[6,7]. Many women thought about abortion or even underwent to abortion and some women after the delivery developed complication and gave a low birth child[8]. In other study it was estimated that 43% of women with unintended pregnancy ended up with abortion[9].

In 1999, 38% of pregnancies worldwide has been estimated to be unintended or unplanned pregnancies[10]. Many studies were conducted worldwide to estimate the prevalence of unplanned pregnancy, for example in UK, the prevalence of unplanned pregnancy was 16.2%[11]. in the middle east, there was a study conducted In Sudan suggested that the prevalence of unintended pregnancy was 30.2% and found that it is more in high parity women[12].Our aim in this study was to estimate the prevalence of unplanned pregnancy among Saudi pregnant women attending the clinics and to determine the characteristics that may interfere with that prevalence along with psychological effect.

MATERIALS AND METHODS

Self-administrated survey was conducted randomly among pregnant women attending obstetric clinics at King Khalid university hospital, Riyadh city Kingdom of Saudi Arabia during January, February and March 2017. Of whom 358 completed the survey. We excluded IVF (In vitro fertilization) patients or any type of induced pregnancy, also any patient with pregnancy complications and any pregnant women known to have psychological disorders and included completed and partial completed surveys. We used 26 instrumental survey (see appendix). Our survey contained 3 section. First section, socio-demographic characteristics of the respondents. Second section, we used London measurement of unplanned pregnancy (LMUP) which is considered validated measure to assess if the pregnancy was planned or unplanned. By using 6 questions with total score range from 0 to 12. If the final results for this scoring system from 0 to 3 is considered unplanned pregnancy, from 4 to 9 is ambivalent and from 10 to 12 is planned pregnancy. Third section, we used Kessler 6-Item Psychological Distress Scales (K6), which is a simple and screening measure for psychological effect like depression and anxiety and each question scaled from 1 to 5 and the total score ranged from 6 to 30.

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If the result of this system range From 6 to 11 it is considered low , from 12 to 19is considered mild to moderate and from 20 to 30 is considered high. SPSS version 22 was used for data entry and analysis and P value was defined to be > 0.05.

RESULTS

A total of 358 surveys were collected. Most of the respondents (27.9%) age ranged between 26 – 30 years. Concerning residence, most of the respondents (96.1%) resided in Urban area. (70.9) were unemployed and (66.2) had a university degree. Regarding gravidity and parity, most of respondents were primigravida and nullparity (37.2%) and (35%) respectively.29.9% of the respondents had abortion. Concerning gestational age, most of the respondents (67.9%) were in the third trimester. Table 1. summarizes socio-demographic information of those respondents.

According to London measurement of unplanned pregnancy (LMUP), we found that most of the respondents (53.1%) had planned pregnancy, where (34.6%) and (12.3%) were ambivalent and unplanned respectively, while the median LMUP score was 10. When LMUP score compared with the socio-demographic information of the respondents, we found that there were significant findings with ages, gravidity and parity. p values were (0.029),(0.004) and (0.015) respectively.According to age, we found that the highest percentage of planned pregnancy (63.08%) were pregnant women age range between 31 – 35 years old. On the other hand, the highest percentage of unplanned pregnancy (16.67%) was pregnant women age between 20 - 25 years old. Regarding gravidity, the highest prevalence of unplanned pregnancy (31.58%) were among pregnant women with 5 gravidity while highest prevalence of planned pregnancy (65.75%) were among pregnant women with 2 gravidity. For parity, we found that highest prevalence of unplanned pregnancy (30.77%) was among pregnant women with 5 parity while the highest prevalence of planned pregnancy (63.95%) was among pregnant women with 1 parity. When the LMUP score compared with other respondents characteristics like residency, employment, level of education and number of abortions we didn't find any significant results. Table 2. Summarizes relationships between respondents characteristics with LMUP score.

In figure 1. Comparison between psychological effect by using Kessler 6-Item Psychological Distress Scales (K6) and LMUP score, is presented . It showed that when the pregnancy was planned there was a minimal decrease in the psychological effect.

Table 1: Characteristics of the pregnant women

	Number	%
Age (mean±SD)	29.8±5.4	
20-25y	66	18.4
26-30y	100	27.9
31-35y	65	18.2
36-40y	30	8.4
>40y	8	2.2
Missing	89	24.9
Residence		
Urban	344	96.1
Rural	14	3.9
Employment		
No	254	70.9
Yes	104	29.1
Level of education		
Illiterate	8	2.2
Basic	20	5.6
Secondary	93	26
University	237	66.2
Gravidity		
1	133	37.2
2	73	20.4
3	62	17.3
4	43	12
5	19	5.3
6 or more	28	7.8
Parity		
0	127	35.5
1	86	24
2	61	17
3	36	10.1
4	24	6.7
5	13	3.6
6 or more	11	3.1
Abortion		
No	251	70.1
Yes	107	29.9
Gestational age		
First trimester	40	11.2
Second trimester	75	20.9
Third trimester	243	67.9

Table 2: relationship between socio-demographic information and LMUP score

	Unplanned (0-3)	Ambivalent (4-9)	Planned (10-12)	LMUP score Median(IQR)	P value
Over all	12.3	34.6	53.1	10(6-11)	
Age					
20-25y	16.67	48.48	34.85	8(5-10)	0.029*
26-30y	12	30	58	10(6-11)	
31-35y	12.31	24.62	63.08	10(8-11)	
36-40y	6.67	43.33	50	9.5(4.8-11)	
>40y	12.5	62.5	25	8(6.5-9.75)	
Residence					
Urban	11.92	34.01	54.07	10(6.25-11)	0.163
Rural	21.43	50	28.57	6(3.5-10)	
Employment					
No	12.2	35.83	51.97	10(6-11)	0.754
Yes	12.5	31.73	55.77	10(6-11)	
Level of education					
Illiterate	0	37.5	62.5	10(7.25-11)	0.65
Basic	35	30	35	8(3-10)	
Secondary	11.83	37.63	50.54	10(6-11)	
University	10.97	33.76	55.27	10(6-11)	
Gravidity					
1	6.77	39.1	54.14	10(7-11)	0.004*
2	6.85	27.4	65.75	10(9-11)	
3	20.97	25.81	53.23	10(4-10)	
4	13.95	37.21	48.84	9(5-11)	
5	31.58	36.84	31.58	7(3-11)	
6 or more	17.86	46.43	35.71	8(6-10)	
Parity					
0	6.3	39.37	54.33	7(10-11)	0.015*
1	6.98	29.07	63.95	10(8-11)	
2	19.67	27.87	52.46	10(4-11)	
3	22.22	30.56	47.22	9(4-11)	
4	16.67	41.67	41.67	9(5.25-11)	
5	30.77	46.15	23.08	7(1.5-9)	
6 or more	18.18	45.45	36.36	8(6-11)	
Abortion					
No	14.34	34.26	51.39	10(6-10)	0.178
Yes	7.48	35.51	57.01	10(7-11)	

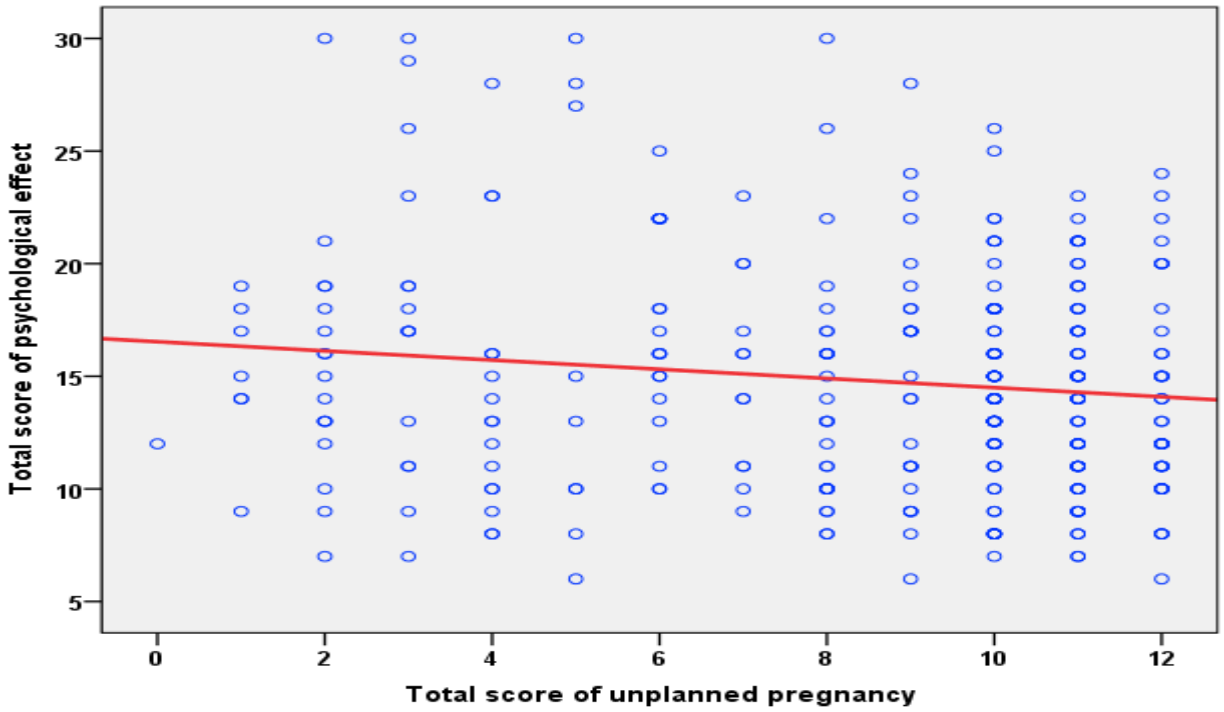

Figure 1: The relation between total score of unplanned pregnancy and total score of psychological effect

DISCUSSION

Unplanned pregnancies had a specific effect on women's lives that can result in poor outcomes and specific psychological effects[4,5]. There is no study conducted in Saudi Arabia to measure the prevalence of unplanned pregnancy. Unique finding in our study despite cultural and religious issues among Saudi population regarding determination of the pregnancy either planned or not .we found that, the prevalence of unplanned pregnancy was 12.3% which is different when compared to other populations study. For example in UK, it was 16.2% and in USA, by the year of 2006 it was 49%[9,11]. We believe that cultural and religious and other issues may play an important role in that discrepancy .

We found that pregnant women with increasing in age had more planned pregnancy compared to younger women. On the other hand, we observed that women with increasing in gravidity and parity are more prone to have unplanned pregnancy when compared to other groups. Study done in Sudan found that prevalence of unintended pregnancy is increasing in women with high parity[12].

There is no significant effect of the Level of education, employment and residency in the determination if the pregnancy to be planned or unplanned. We revealed that, the pregnant women who had current planned pregnancy had a minimal psychological effect when compared to those with unplanned pregnancy. This conclusion is supported with other findings in which the unplanned pregnancy is associated with minimal psychological effects[4,5].

Limitations have to be considered in the present study. It was done on a very small size of women. This small number of participants affect the overall outcomes of the study and consequently we cannot generalize the results to represent the Saudi society. We belief that the selection of the participants was biased since we included the patients attending the clinics during a specific period of time. Also, and we excluded In vitro fertilization patients or any type of induced pregnancy. Moreover, any patient with pregnancy complications as well as exclusion of any pregnant women known to have psychological disorders. Also, the use of screening scale is not considered an optimal way to determine such a psychological consequence of such problem.

CONCLUSION

Unplanned pregnancy has been associated with psychological distress and poor outcomes to the mother and baby as well as associated with an increase in the growth in population number. It is a public health and economic problem in the society.

We should increase the public awareness regarding the effects of unplanned pregnancy and associated outcomes and to identify the role of

contraceptions in avoiding phenomena. We need more studies on larger population samples to estimate the actual percentage of unplanned pregnancy.

Conflict of interest: there is no conflict of interest.

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