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Planned versus unplanned pregnancy and it's Effect on Labor and Fetal Outcome

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Abstract

Aim of the study: the study aimed toAssessment the effect of planned versus unplanned pregnancy on labor and fetal Outcome among women. **Setting:** The study was conducted in labor unit, recovery room atobstetrics and gynecology department, in banha university hospital.**Design**: descriptive study design. **Sampling:** APurposive sample included 200 women were recruited in the current study. **Tools:**Structured interviewing questionnaire: It was developed by researcher after reviewing relevant literature. It was included parts. Part (1):includeSocio demographic data of the women,Part (2) include Obstetric history, part (3) include healthy behavior during pregnancy,Part (4):includeLabor and neonatal condition, andPart (5)includeLondon measureof Unplanned Pregnancy. **Results:** Unplanned pregnancy rate increase between women aged >35yrs old. Unplanned pregnancy was associated with mother's socioeconomic status as age, education, number of live children. There were significantly increase odds of low birth weight and preterm birth among unplanned pregnancy. Also our results indicate significant association between unplanned pregnancy and delayed antenatal care. The majority of women with unplanned pregnancy were used contraception incorrectly and inconsistently before pregnancy than women with planned pregnancy. **Conclusion:** Unplanned pregnancy was more likely to delay antenatal care, to develop pregnancy complication as gestational diabetes, hypertension during pregnancy. In addition delivered by cesarean, preterm labor and their infants were at risk to low birth weight, respiratory distress and admitted to intensive care unit. **Recommendation:**Design awareness program for women regarding important of planning pregnancy and risk of unplanned pregnancy and distribute guidelines for women about safe practice of family planning, further researches should develop strategy to reduce its occurrence.

Key words: planned pregnancy, unplanned pregnancy, preconception care.

Introduction

Pregnancy is a crucial time to promote healthy lifestyles and parenting skills. It is not just a matter of waiting to give birth. Often a defining phase in a woman's life, pregnancy can be a joyful and fulfilling period for the mother when are planned and can also be one of misery and suffering, when the pregnancy is unwanted or mistimed, Pregnancy may be natural, but that does not mean it is problem-free. **(Sullivan and Hirst, 2011)**

Planning pregnancy is pregnancy that was wanted at the time ofconception.The mothers should begin preparation for pregnancy before conception but others choose to start planning when they are aware of pregnancy. Whatever it is possible to have a healthy pregnancy and baby without pregnancy plan, planning for pregnancy typically involves discussions with a woman's partner and her health-care team about nutrition, vitamin, exercise, genetic counseling, weight gain, and the need to avoid certain medications***(Fineret al., 2014)*.**

Prenatal care can help identify maternal health risks early on, improve the mother's nutritional status, and encourage other healthy behavior (such as taking folic acid). The benefits of prenatal care that can improve maternal and infant health, cut the risk of premature birth, still birth, neonatal death, and infant death.**(Hussaini et al., 2013)**

Unplanned pregnancy is an important public health issue in developed and developing countries due to negative associations with the social and health outcomes of both the mother and child. Mothers with an unplanned pregnancy utilize less and delay prenatal and postnatal care, breastfeed for a shorter duration, have poorer personal hygiene, and have higher rates of risky behavior such as smoking, drinking alcohol, and drug abuse during pregnancy. Children are also at risk for lower birth weight, incomplete vaccinations, and a higher incidence of illness compared to those of intended pregnancies. **(Aiken et al., 2015)**

Professional responsibilities for nurses providing care to women with unplanned pregnancies include appropriate assessment, options counseling, provision of or referral for desired services, care coordination, and prevention efforts aimed at decreasing future unplanned pregnancies. Nurses' awareness of available services and their involvement in referring or providing services is an essential component to reproductive health care. **(Miller et al., 2010)**

Justification of study

It has been estimated that, globally the highest unintended pregnancy rates were found for Eastern and Middle Africa and the lowest for Southern and Western Europe and Eastern Asia. However, this rate varies from one community to another, according to the characteristics of the surveyed population. The Egyptian rate of unintended pregnancy is closer to that found in the Islamic Republic of Iran, where the rate was 35%. This prevalence does not reflect the true magnitude of the problem, but can rather be considered as an underestimate since it was only calculated among ever-married women, and those whose pregnanciesended in birth. According to the studies by World Health Organization, close to one-third of the pregnancies in the third- world countries are unwanted. Nationally, 53 percent of unintended pregnancies are a result of contraceptive failure **(Kelly, 2014)**

Aim of the study

Assess the effect of planned versus unplanned pregnancy on labor and fetal Outcome

Research Question

Were there differences between planned and unplanned pregnancy in relation to labor and fetal outcome?

Subjects &Methods

Research design:

A descriptive comparative design

(A)Research setting:

Obstetrics and gynecology department (post-partum room) at Benha university hospital

(B)Sampling:

***Sample type**:

A Purposive sample

Inclusion Criteria:

Mothers are 18 years or more**.**

Post-partum women (2hour after labor)

Free from medical disease.

*** Sample size and Technique:**

A total number of 200women who were attended obstetrics and gynecology department, at Benha university hospital, the number of the subjects were calculated based on the flow rate of women at studied setting for a year (2014-2015), the sample size was 10%from the total women attended to previous mentioned setting.

(C) Tools of Data collection:

Structured interviewing questionnaire was developed by researcher after reviewing relevant literature. It was being written in simple language and was include parts

Parts (1)

Socio demographic data of the women such as age, level of education, occupation.

Part (2):

Obstetric history such as number of pregnancy, number of birth

Part (3):

Healthy behavior during pregnancy that consistent of eleven questions

Part (4):

Labor and neonatal record: to collect data about the labor and neonate condition; as weeks of gestation at delivery, and mode of delivery, birth weight and any neonatal complication.

Part (5):

London measure of unplanned Pregnancy (LMUP) to measure pregnancy planning as in the month that you became pregnant (you were not using contraception/ you were using contraception but not on every occasion /you always used contraception but knew that the method had failed)

Content validity and reliability:

Data collection tools were tested for validity by a panel of (3) expertise of professors from maternal and newborn health nursing, faculty of nursing ,Banha university to measure the clarity of the tools and necessary modifications were done accordingly.

Ethical considerations:

- Each woman was informed about the purpose and benefits of the study at the beginning of interview and time throughout the study.

-An oral consent was obtained from each woman before starting data collection.

-Confidentiality was ensured throughout the study process, where personal data were not disclosed, and the women were assured that all data was used only for research purpose.

-Each woman is informed that, participation is voluntary and her withdrawal will not affect her care.

Pilot study:

The pilot study was carried out. It involved ten percent of the total sample (20 women) to test the clarity and applicability of study tools as well as estimation of the time needed to fill the questionnaire. Required modification was done in the form of omission of some questions. Women involved in the pilot study were excluded from the study.

Field work:

- The field work of the current study was carried out from the beginning of August, 2016 till the end of January 2017 covered six months.

-The study setting was visited 4times/week (Saturday, Sunday, Tuesday, and Wednesday) from 9 Am to 1 Pm.

-At the beginning of the interview the researcher greeted the women individually

-The researcher introduced herself to each woman included in the study

- The researcher explained the purpose of the study and the questionnaire to each woman individually.

- The researcher took oral consent from each woman.

- The researcher filled an interviewing questionnaire sheet that took 15 minute with each woman, which 5-6 sheets were filled each day until the predetermined number was obtained.

Limitations of the study:

- Lack of cooperation of some women and others were careless of the interview.

- Some disturbance, noise and interruption while conducting the study.

Results

Table (1) Socio-demographic characteristics of study sample (n= 200)

Variable	planned		unplanned		x^2	p-value
socio-demographic characteristics	n=100	%	n=100	%		
Age/year						
<25	42	42.0	16	16.0	45.10	0.000
25-	50	50.0	33	33.0		
35+	8	8.0	51	51.0		
Residence						
rural	66	66.0	64	64.0	0.08	0.76
urban	34	34.0	36	36.0		
Education						
Illiterate	9	9.0	35	35.0	8.51	0.03
Basic education	4	4.0	8	8.0		
Diploma degree	27	27.0	24	24.0		
Higher education	60	60.0	33	33.0		
Occupation						
Work	51	51.0	20	20.0	14.24	0.000
House wife	49	49.0	80	80.0		
Health insurance						
yes	62	62.0	27	27.0	7.03	0.008
No	38	38.0	73	73.0		
Family income						
Enough for basic need	61	61.0	37	37.0	28.81	0.000
Not enough for basic needs	9	9.0	42	42.0		
More than basic needs	30	30.0	21	21.0		

Table (1):reveals thatthere are statistical significant differences between planned and unplanned pregnancy regarding age, education, occupation and family income.

Table (2): Relation between planned, unplanned pregnancy and labor outcome (n=200).

Variable	Planned%	Unplanned%	x^2	p-value
Gestation age at time of delivery				
35-36 Preterm labor	6.0	15.0	21.9	0.000
37-40 Full term	88.0	76.0		
>41 Post term labor	6.0	9.0		
Mode of delivery				
Normal	57.0	32.0	16.18	0.000
Cesarean section	43.0	68.0		
Complication after delivery				
Yes	9.0	41.0	16.47	0.000
No	91.0	59.0		

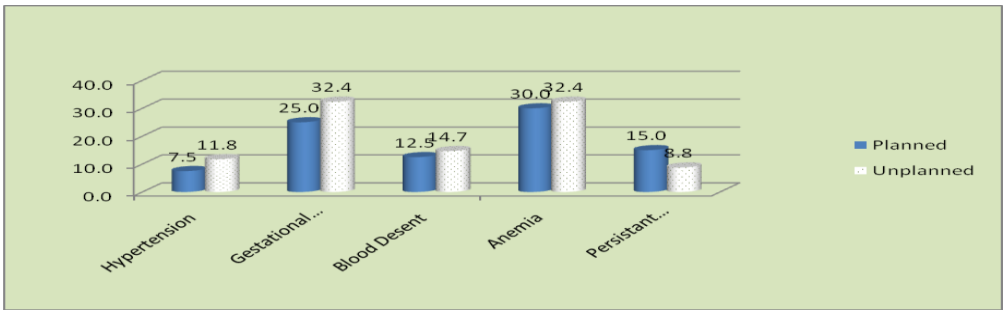
Table (2): indicates that there are highly statistical significant differences between planned and unplanned pregnancy regarding gestational age at time of delivery, mode of delivery and complication after delivery.

Table (3): Relation between planned, unplanned pregnancy and neonate outcome (n=200).

Variable	**Planned %**	**Unplanned%**	**x^2**	**p-value**
Apgar score				
>4	0.0	6.0	11.72	0.003
4-7	6.0	18.0		
<7	94.0	76.0		
Neonate wt.				
low birth Wight	9.0	18.0	63.7	0.000
Normal Wight	77.0	69.0		
Over Wight	14.0	9.0		
Need Incubation				
Yes	6.0	24.0	54.94	0.000
No	94.0	76.0		
Complication after labor for neonate				
Yes	6.0	25.0	11.03	0.001
No	94.0	75.0		

Table (3): indicates that there are highly statistical significant differences between planned and unplanned pregnancy regarding Apgar score, neonate weight, incubation need, and neonate complication after labor.

Figure (1): frequency distribution of study sample regarding pregnancy complain



Percentage distribution of studied sample regardingpregnancy complain

Discussion

In spite of the improvement of family planning services in the last decades, the prevalence of unplanned pregnancies was about halfof sample. This rate isn't reflecting the actual magnitude of the problem in country, because it is only among ever-married females and who their pregnancies were ended by birth. The prevalence of unplanned pregnancies in study is similar toin the United States, **(finer and zolna., 2014)**stated that the proportion of pregnancies that were unintended increased slightly between 2001 and 2008 (from 48%

to 51%), but, by 2011, it decreased to 45 %**.** Moreover in Islamic countries the rate of unplanned pregnancy was closed to our result 35% in Jimma**(Faye et al., 2013).**

The study findings showed a significant difference between planned and unplanned pregnancy in relation to the socio demographic determinants in terms of women's age. Women aged >35 years were more likely to have unplanned pregnancies compared to those aged >20–30 years. This result was corresponding to other studies **(Najafian et al., 2010)** who reported that percentage of unplanned pregnancy in ages more than 35 years was approximately three times more than planned pregnancy. From the researcher point of view, the women over thirty years could have achieved their desired number of children or may need to space between the pregnancies. Occurring pregnancies at this age can put the pregnancy at risk. But this finding disagree with **(Finerand zolna, 2016)** whostated that the rate of unintended pregnancy was highest among women 18–24 and 20–24 years and this rate generally decreased with age.

Regarding family health insurance of the study group ,the present study revealed that most of study group who were unplanned had no system for family health insurance, this finding supported by**(Sonfield and Kost,2015)** who stated thattwo-thirds (68%) of the 1.5 million unplanned births that occurred in 2010 were paid for by public insurance programs, primarily Medicaid. By comparison, 51% of births overall and 38% of planned births were funded by these programs. **(Karacam et al., 2011)** stated that unplanned pregnancies in women are associated with financial problems, a lack of insurance coverage.

The present study found that women who had unplannedpregnancies were more prone to develop pregnancy complication as gestationaldiabetes andhypertension. The result disagree with **(Mohllajee et al., 2016)** who found that no significantincreasing of the risk of pregnancycomplications inwomen with unplannedpregnancy. In our study, theincreasing of the ratio regarding diabetes, hypertension in the group with unplanned pregnancymay be related to psychological stress and anxiety theymay feel. This interpretation was supported by **(Geller, 2016)** who stated that anxiety in which womenexperienced during unplanned pregnancy has beenassociated with a complication during pregnancyincluding gestational diabetes and pre-eclampsia.

The current study showed that neonate from unplanned pregnancy were need incubation, had complication after birth and had increased odds of delivering a low birth weight neonate, but the association is no longer significant when women's age, education, number of delivery, family income, time of starting antenatal care, and total number of antenatal visits are also taken into account. So, unplanned pregnancy has no independent effect on birth weight, but it reduces its odds. This finding supported by (**Mosher et al., 2012)** who found anassociation between unintended pregnancies and lowbirth-weight. But (**Hall, 2015)**disagree with present study and found that this association was independent where he found that maternal behaviors with unintended pregnancy including non-use of prenatal care had an additional risk to low birth weight. Other interpretation suggests that**,** mothers with unplanned pregnancies may eat a less nutritious diet than women with planned pregnancies and gained inadequate weight during pregnancy**.**

The present study found that women with unplanned pregnancy were more than planned to deliver by cesarean section, had complication after labor and had premature labor, increasing riskof preterm delivery maybe due to unhealthy behaviors which women withunintended pregnancy were doing such as second hand smoking, that conceder a cofactor contributed to preterm birth. The significant association between maternal second handsmoking and preterm

labor was proven by **(Luo et al., 2014)**. This result was constant with many studies (**Shah et al., 2011)** that found significant increased risk of premature birth with unplanned pregnancy. On the other hand, theresult was disagree with (**Tosson et al., 2015)**who pointed that absence of statistical significant differencebetween the planned and unplannedpregnanciesregarding the risk of premature births**.**

Conclusion

In the light of the study finding, some important facts could be concluded: Based on the results of the present study concluded that unplanned pregnancy in comparison to planned pregnancy was more likely to delay antenatal care, to develop pregnancy complication as gestational diabetes, hypertension during pregnancy. In addition delivered by cesarean, preterm labor and their infants were at risk to have low birth weight, respiratory distress and admitted to intensive care unit. Finally, the present study supported the study research question and achieves aim of study.

Recommendations

In the light of the current study findings, the following recommendations are suggested:

In the light of present study the following recommendations are suggested:

- Design awareness program for women regarding important of planning pregnancy and risk of unplanned pregnancy.
- Distribute guidelines for women about safe practice of family planning.
- Further researches should develop strategy to reduce unplanned pregnancy occurrence

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