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RESEARCH ARTICLE

THE EFFECT OF PSYCHO-SOCIAL FACTORS ON BIRTH OUTCOMES AMONG THE REFUGEE PREGNANT WOMEN IN GAZA STRIP

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ABSTRACT

Over the past ten years, infant mortality and neonatal mortality rates in Gaza Strip had an increasing trend despite all the efforts that were done to reduce it. This study aimed to examine the effects of exposure of Palestinian refugee women to psychosocial stressing factors during the 3rd trimester of pregnancy and consequently their birth outcomes in Gaza Strip. A prospective cohort study was applied on 500 pregnant (aged above 18 and less than 39) women in their third trimester attended eight health centers to receive antenatal care using an interview questionnaire. After delivery women were approached to collect information about their birth outcomes. Statistical analysis was done by SPSS (version 20). Chi-square analysis test was used to describe the study variables and univariate analysis was done to examine the association between the study independent variables and the birth outcomes (P-value $\leq$ 0.05). The results showed that (21.2)% of the babies; their weight were less than 2500 and (16.4)% were preterm babies. Also, (1.6)% of the woman experienced perinatal deaths. More than half of low birth weight, preterm babies, and perinatal deaths were among the women who completed secondary and high school. Also, In addition, (7)% of low birth weight and (8)% of PTB were to employed pregnant women. About (16)% of pregnant women were exposed to domestic violence during their pregnancy. Some of those women had adverse birth outcomes, results demonstrated that domestic violence contributes to (18.9)% of low birth weight babies, (17.1)% of preterm babies. Yet there wasn't any perinatal death occurred among the women who were exposed to domestic violence. A (17.4)% of pregnant women perceived that they have received low social support and (43.2) % of them had high stress level. Also, (45.6)% complained of severe level of fatigue and (16)% had high stress level caused by pregnancy. There were significant associations between the husband's education and having preterm babies and the relationship of the women with their husbands and having low birth weight babies or preterm babies. In conclusion, Although social support; violence; fatigue; having stress due to pregnancy or exposed to any kind of other stress did not show significant roles in determining birth outcomes in this study, but is still considered factors affecting pregnant women's health.

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INTRODUCTION

Many improvements in the health are implemented worldwide by various stakeholders from national and regional sectors. Those stakeholder emphasized on the fact that mother and child health are highly affected by a wide range of socio-economic and environmental factors, which could indirectly affect their health in addition to the physical causes (WHO, 2015). Therefore, care for child should start even before pregnancy and continue through the course of pregnancy and child birth (WHO, 2016). The new ANC approach requires of what they called "woman-centered antenatal care service" that would include tailored, rather than routine clinical therapeutic practices, relevant and timely information and finally the most important part is the support including social, cultural, emotional and psychological support (WHO, 2016). Stress can be a possible host of problems for the babies during pregnancy. The problem is that the stress is a silent disorder, thus pregnant women should be aware how to recognize it when they have stress. This is also applied on the birth outcomes. As, it is not easy to predict with certainty whether the outcome is going to be poor or not. Therefore it is important to follow the possible ways which mitigate the harm that could happen (Van, 2011). Stress includes a wide range of different exposures to life events like bad relationship, witnessing on acute disasters, poor socioeconomic status and pregnant specific anxiety as well. It

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has been shown to be associated with altered outcomes for the infant (Glover, 2011). The outcomes of these factors might cause morbidities which by themselves lead to adverse birth outcomes such as low birth weight (LBW) and preterm birth (PTB) (Feinberg *et al*., 2015). According to the world health organization (WHO) report 2013, about 15 million babies are born preterm each year and that is one every ten babies worldwide. In addition, it is attributed to one million deaths, and even those who survived are suffering lifelong disabilities. Globally, prematurity is the leading cause of death among the children under five years old, and according to the countries with reliable data the number is increasing (WHO, 2014). In Palestine, particularly in Gaza Strip, unstable life is the dominant feature. Siege and boycott, high unemployment rate (43.3%), increasing poverty, shortage of power supply, restriction of people movement and internal political dispute between government de-facto and the Ramallah government are leading the life to stressful daily suffering (Shomar, 2011). Also, since 2008 Gaza was passing in three wars (2008/2009, 2012, 2014). This situation added more difficulties and stress on the daily life of Gaza population and imposed impact, in particular on the vulnerable groups and among of them are the pregnant women and their newborns (Shomar, 2011).

MATERIALS AND METHODS

The study was designed as a prospective cohort study including the pregnant women of the Palestinian refugee in Gaza Strip. Exposures that were decided to be studied were, social stressors, economical stressors, the degree of social support and the impact of fatigue level. While the study outcomes that were assessed were; LBW, PTB and the neonatal death. The sample was a multi stage sampling, where the first stage was selecting the eight health care centers from the 21 UNRWA health care centers. The second stage was random selection of the 500 pregnant women from the whole pregnant women who attended the health care centers for Antenatal care in the period between September to December 2015. The selection of the pregnant women was based on a predefined criteria (Pregnant women whose ages above 18 or below 39 years old, Pregnant women who were in their 3rd trimester, and Women who had normal pregnancy with no complications in their obstetric history). While, one set of criteria was applied all over the selected HCs, this criteria was composed of geographical distribution and inclusion of the scattered locations of the HCs in the different zones of the Gaza Strip, coverage of the served population and size of the HCs and catchment area and catchment population of the selected health centers. The data was collected used face to face structured interviewed questions. Statistical analysis was done by using the SPSS version 20. Descriptive analysis was done for all the demographic and socio-economic variables of the study. Continuous variables like, age, educational level, stress scale, social support scale; all were converted into categorical variables. Chi-square was used to find out the association between all the independent categorical variables and the outcomes. Significant level was set to be less than 0.05.

RESULTS AND DISCUSSION

Demographic characteristics of the pregnant women showed that 64% of women are in the age group 18-27 years and 53% live in the city. Of the women, 40.6% of them got married before the age of 18 years (23.8% were at the age of 17 and 12% were at the age of 16), and 22.4% had their first child when they were under the age of 18 years. 58.4% of the participated women had 7-12 years of education and 40% were graduates or post graduates. However, only 6% of them were working. Husbands of these women had similar level of education, and 65% were employed. About 60% had moderate income. Also, social characteristics explained that 84.2% of pregnant women answered that it is very good relationship with their husbands. There are 33.6% of the pregnant women live in extended family. 23.3% of them are in very good relationship with the husband's family. The majority of them are in very good relationship with her family that represented 92.4% .Sixteen percentage of the women have been exposed to the violence (Physical, verbal, or both) while they are pregnant. From those women who have been exposed to the violence, 5.6% have been exposed to both physical and verbal (To be assaulted by spoken words) violence. When they were asked about the frequency of exposure to the violence during the pregnancy period, 4.2% answered once per month, 3.4% said more than one time per month and there is 1.6% of them have been exposed to violence every day. The univariate analysis of the study data showed no significant effect of the demographic characteristics on the occurrence of perinatal death or birth outcomes. The only significant results are shown between husband education and having PTB, and between women relationship with their husbands and having LBW baby (P value = 0.029) as showed in Table (1) or PTB (P value = 0.031) as showed in Table (2).

The study also showed that there is no significant difference between the woman who has been exposed to domestic violence during the pregnancy and the woman who hasn't been exposed to violence on having baby with LBW. This is consistent with a study that revealed domestic violence is associated with adverse birth outcomes including LBW and PTB (Nongram *et al*., 2014). Pregnant woman who suffered domestic violence could be more liable to experience negative sequences of their pregnancy than other pregnant women. Exposure to violence elevates the stress level among the pregnant woman; she will be emotionally and mentally unsafe. This could influence the maternal health care behaviors of the pregnant woman as she may neglect herself and the care of the baby health. However, this percentage could be under reporting, as asking the woman if she experienced violence is sensitive and could be embarrassing for her to give the accurate answer and talk about such condition. The high incidence of adverse birth outcomes were among those women who claimed in their answers that they were not exposed to violence during their pregnancy. This could be explained by the fact that those women are trying to conceal the internal condition of their families and this is consistent with the cultural perception of loyalty to keep the integrity of the family by being patient with the husband in the hard times. Thus, part of those women might have given inaccurate answer. This can be supported by the report that was launched in 2014 by the United Nation. As they showed high incidence of violence among the women, they mentioned that 29.9% of married women in West Bank and 51% in Gaza Strip are exposed to violence within the household. 48.8% of the women in West Bank and 76.4% in Gaza Strip have been psychologically abused; 17.4% in the West bank and 34.8% in Gaza Strip are physically abused; and 10.2% in the West Bank and 14.9% in the Gaza Strip sexually abused. The study results showed as in Table (3) that percentage of the women who had normal birth weight of their babies is the highest among those with high social support 48.5%.

Table 1. The effect of family members' relationship on the birth weight of the baby

Variables		Low Birth Weight (LBW)				Chi-Square
		Yes		No		
		N	%	N	%	P-value
Relationship with your husband	Very good	98	92.5%	323	82 %	0.029
	Good	6	5.7%	59	15%	
	Bad	2	1.9%	12	3%	
Relationship with your family	Very good	98	92.5%	364	92.4%	.827
	Good	6	5.7%	19	4.8%	
	Bad	2	1.9%	11	2.8%	
Relationship with the husband's family	Very good	24	22.6%	92	23.4%	.383
	Good	10	9.4%	30	7.6%	
	Bad	2	1.9%	9	2.3%	
	don't live with any of the family	69	65.1%	263	66.8%	

Table 2. The effect of family members' relationship on the gestational age

Variables		Preterm delivery				Chi-Square
		Yes		No		P-value
		N	%	N	%	
Relationship with your husband	Very good	77	93.9%	344	82.3%	.031
	Good	4	4.9%	61	14.6%	
	Bad	1	1.2%	13	3.1%	
Relationship with your family	Very good	76	92.7%	386	92.3%	.993
	Good	4	4.9%	21	5.0%	
	Bad	2	2.4%	11	2.6%	
Relationship with the husband's family	Very good	18	22.0%	98	23.4%	.103
	Good	8	9.8%	32	7.7%	
	don't live with any of the family	55	67.1%	277	66.3%	

Table 3. The effect of psychosocial status of the pregnant woman on the birth weight of the baby

Variables		Low Birth Weight (LBW)				Chi-Square
		Yes		No		P-value
		N	%	N	%	
The perceived social support	High	55	51.9%	191	48.5%	.599
	Moderate	36	34.0%	131	33.2%	
	Low	15	14.2%	72	18.3%	
The perceived stress during Pregnancy	High	48	45.3%	168	42.6%	.833
	Moderate	29	27.4%	119	30.2%	
	Mild	29	27.4%	107	27.2%	
The degree of fatigue among the pregnant woman	Severe	52	49.1%	176	44.7%	.700
	Moderate	43	40.6%	170	43.1%	
	Mild	11	10.4%	48	12.2%	
The stress related to the pregnancy itself	High	16	15.1%	60	15.3%	.979
	Moderate	66	62.3%	240	61.2%	
	Mild	24	22.6%	92	23.5%	

Table 4. The effect of psychosocial status of the pregnant woman on the gestational age

Variables		Preterm delivery				Chi-Square
		Yes		No		P-value
		N	%	N	%	
The perceived social support	High	43	52.4%	203	48.6%	.397
	Moderate	29	35.4%	138	33.0%	
	Low	10	12.2%	77	18.4%	
The perceived stress during pregnancy	High	37	45.1%	179	42.8%	.919
	Moderate	23	28.0%	125	29.9%	
	Mild	22	26.8%	114	27.3%	
The degree of fatigue among the pregnant woman	Severe	38	46.3%	190	45.5%	.966
	Moderate	35	42.7%	178	42.6%	
	Mild	9	11.0%	50	12.0%	
The stress related to the pregnancy itself	High	10	12.2%	66	15.9%	.681
	Moderate	53	64.6%	253	60.8%	
	Mild	19	23.2%	97	23.3%	

Table 5. The effect of psychosocial status of the pregnant woman on causing perinatal death

Variables		Perinatal Death				Chi-Square
		Yes		P-value		P-value
		N		N	%	
The perceived social support	High	5	62.5%	241	49.0%	.750
	Moderate	2	25.0%	165	33.5%	
	Low	1	12.5%	86	17.5%	
The perceived stress during pregnancy	High	2	25.0%	214	43.5%	.410
	Moderate	4	50.0%	144	29.3%	
	Mild	2	25.0%	134	27.2%	
The degree of fatigue among the pregnant woman	Severe	3	37.5%	225	45.7%	.400
	Moderate	5	62.5%	208	42.3%	
The stress related to the pregnancy itself	High	1	12.5%	75	15.3%	.974
	Moderate	5	62.5%	301	61.4%	
	Mild	2	25.0%	114	23.3%	

Similarly, preterm delivery didn't occur in 48.6% of women who received high social support. The univariate analysis showed that there is no significant effect of the social support, the degree of fatigue and the stress related to the pregnancy on improving the outcome of the birth weight.

Preterm delivery is more among the women who expose to high stress level with percentage (45.1%) of these deliveries occurred among the women with the highest level of stress as in Table (4). These results are in agreement with a study which showed that PTB, LBW and fetal growth restriction occurred more among the women with high stress level than women with low stress level (Cooper *et al*., 1995). Another study revealed that women who were socially disadvantaged and had high stress level, they were more associated with poor birth outcomes (Gavin *et al*., 2012). The same regarding exposure to stress, results showed that despite high perceiving of stress, 42.6% didn't have LBW babies, 42.8% didn't have PTB and 43.5% didn't experience deaths in their outcomes. This could be explained by the fact that the women in Gaza Strip after 10 years of hardship are coping with the hard situation and they have developed protective mechanisms and avoid the blaming of the surrounding conditions.

On the other hand, Table (5) showed that forty nine percentage of the pregnant women who didn't experience perinatal death received high social support during pregnancy. Elsenbruch and *et al* (2007) said; High social support showed that it is important to improve the pregnancy outcomes. The same was said by Haobijam and colleagues (2010); they said that the level of family support showed effect on the pregnancy outcomes, it revealed that high family support leads to high percentage of women had positive birth outcomes.

Conclusion and Recommendations

Despite the results of this study didn't come out with significant association between most of the studied variables and the birth outcomes; still important information has been generated from this study and definitely it is of concern for the health providers. We suggest interventions to improve the quality of services provided to pregnant women at risk, community and health professionals need to be aware of the importance of the psychosocial factors in maternal well-being and the birth outcomes.

1. Integration of the mental health program with the preconception care and antenatal care.
2. Improving of the knowledge, attitude and consequently the health behavior of both woman and her husband toward the pregnancy.
3. Focusing on the preconception care (including the family planning) to assure the social and health status of the women is appropriate for pregnancy, so that they will enter pregnancy with optimal health.
4. Addressing home visits and telephone contact with the pregnant woman as a kind of social support and to give her empathy.
5. Conduction of sessions that join the couples together for raising awareness supports on subjects related to pregnancy, parenting, the importance of social and emotional support. In addition, understanding the life style of the couples and the relationship between them to improve the outcome of the pregnant woman (Family counseling).
6. Reduce the risks that were identified in the previous pregnancy to prevent or to minimize their effect on the current pregnancy.
7. Health care providers should understand how to respond to domestic violence once they have been identified. Policies and protocols on domestic violence must be established for effective assessment, intervention, documentation and referral.

REFERENCES

Cooper, L. G., Leland, N. L. and Alexander, G. 1995. Effect of maternal age on birth outcomes among young adolescents. *Social biology*, *42*(1-2), 22-35.

Elsenbruch, S., Benson, S., Rücke, M., Rose, M., Dudenhausen, J., Pincus-Knackstedt, M. K., ... and Arck, P. C. 2007. Social support during pregnancy: effects on maternal depressive symptoms, smoking and pregnancy outcome. *Human Reproduction*, *22*(3), 869-877.

Feinberg M E, Roettger M E, Jones D E, Paul M I and Kan M L, 2015. Effects of a psychosocial couple-based prevention program on adverse birth outcomes. *Maternal and Child Health Journal*, *19*(1), 102-111.

Gavin, A. R., Nurius, P. and Logan-Greene, P. 2012. Mediators of adverse birth outcomes among socially disadvantaged women. *Journal of Women's Health*, 21(6), 634-642.

Glover, V. 2011. Annual research review: prenatal stress and the origins of psychopathology: an evolutionary perspective. *Journal of Child Psychology and Psychiatry*, *52*(4), 356-367.

Haobijam, J., Sharma, U. and David, S. 2010. An exploratory study to assess the Family support and its effect on Outcome of Pregnancy in terms of Maternal and Neonatal health in a selected Hospital, Ludhiana Punjab. *Nursing and Midwifery Research Journal*, *6*(10), 137-145

Nongrum, R., Thomas, E., Lionel, J. and Jacob, K. S. 2014. Domestic violence as a risk factor for maternal depression and neonatal outcomes: a hospital-based cohort study. *Indian Journal of Psychological Medicine*, *36*(2), 179.

Shomar B. 2011. Water scenarios in the Gaza Strip, Palestine: thirst, hunger and disease. *International Journal of Environmental Studies*, *68*(4), 477-493.

UNRWA- United Nation Relief and Work Agency. (2015a), Health Department Annual Report (2014). Accessed on December, 7, 2015. http://www.unrwa.org/resources/reports/health-department-annual-report-2014.

VAN B. 2011. Pre/Perinatal Stress and its Impact on Typical and Atypical Offspring Development: Commenting on DiPietro, Schneider, O'Connor and Glover. Accessed on April, 12, 201http://www.child-encyclopedia.com/stress-and-pregnancy-prenatal-and-perinatal/according-experts/preperinatal-stress-and-its-impact.

WHO – World Health Organization (2014), New data show child mortality rates falling faster than ever. . Accessed on December, 6, 2015. http://www.who.int/mediacentre/news/releases/2014/child_mortality_estimates/en/.

WHO – World Health Organization (2015), Ensure healthy lives and promote well-being for all at all ages. Accessed on December, 15, 2015. http://www.who.int/mediacentre/news/statements/2015/healthy-lives/en/.

WHO – World Health Organization. (2016), What matters to women during pregnancy: a different approach to antenatal care. Accessed on December, 6, 2015. http://www.who.int/reproductivehealth/topics/maternal_perinatal/anc/en/.

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