Factors Influencing Miscarriage Among Pregnant Womenin Banadir Hosptial at Wadajir District

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Abstract

The World Health Organization (WHO) defines miscarriage as the expulsion or extraction from the maternal body of an embryo or a fetus with weight 500g which corresponds to a gestational age of about 20–22 weeks, (Caserta et.al, 2014). Aim of this study is to investigate the factors influencing miscarriage among pregnant women at Banadir hospital at wadajir district in Mogadishu Somalia. The specific objectives of the study were to identify factors that cause miscarriage among pregnant women attending Banadir hospital at wadajir district, to investigate complication related miscarriage and to assess knowledge and experience on mother with miscarriage who visited Banadir hospital at wadajir district. The methods used in this study were cross sectional descriptive, the study population is pregnant women that were suffering miscarriage visiting Banadir hospital at wadajir district. A sample of 45 respondents were selected purposively, data collected during 1st- 20th May, 2017 using questionnaire, The data analyzed with the aid of SPSS and EXCELL. The results reveal that 22% of the respondents were house wives and 38% were business women. Most of the respondent's gestational were nearly 12 weeks accounting 42%. The factors contributed miscarriage

among pregnant women were 56% of the pregnant women did not take folic acid while 76% of the respondents lifted heavy objects during pregnancy. When pregnant women were asked their knowledge on miscarriage, 70% said no while 53% believed that miscarriage is not preventable. The main complication of miscarriage among pregnant women was infection accounting 62.5%. The study recommends encouraging the community leaders and influencers to advice the pregnant mother to attend MCH during pregnancy and To increase awareness of the pregnant mothers on the benefits of folic acid other micronutrients during pregnancy which can prevent the incidence of miscarriage

Keywords: Miscarriage, pregnant women, wadajir district.

1.0 Background

The study determined factors influencing with miscarriage most common factors are poor nutritional, heavy physical activity, poor awareness, and due to inadequate health education of the pregnant mother during ANC, poor family and social support.

The World Health Organization (WHO) defines miscarriage as the expulsion or extraction from the maternal body of an embryo or a fetus with weight/500 g which corresponds to a gestational age of about 20–22 weeks, (Donatella Caserta *at el*, 2014) Several studies have been conducted on miscarriage in world wide. The study in china indicate incidence of miscarriage is commonly stated as 10%–15% of all pregnancies, and it is the most common complication during pregnancy However, the incidence Is difficult to determine precisely, since as many as 30% may go unrecognized, and these can occur very early during a pregnancy. (LuLi *at el*, 2013).Studies of miscarriage in

low-income and middle-income countries face additional challenges almost miscarriages occur without any contact with the formal healthcare system and are not registered. Since pregnant women usually present for ANC late in pregnancy with an estimated 11–54% of women initiating ANC in the first trimester and most presenting late in the second trimester (Stephanie Delicious *at el*, 2013).

The specific objectives of this research are:

- To identify factors that causes miscarriage among pregnant women attending Banadir hospital at wadajir district.
- 2. To investigate complications related miscarriage among pregnant women attending Banadir hospital in wadajir district.
- 3. To assess knowledge and experience on mother miscarriage among pregnant women attending Banadir hospital in wadajir district.

2.0 Methodology

2.1 Study design

This research used descriptive cross sectional research design in determining the severity and awareness on miscarriage on reproductive women .This study was adopt quantitative method that involved descriptive survey design and it included time and location survey, respondents, data collection and sampling, instruments, statistical treatment and challenges.

2.2 Study site and Target Population

This research had undertaken in Banadir Hospital, located wadajir district in Banadir region mogadishu-somalia. Wadajir district is 1of 16 districts in banadir region Mogadishu Somalia is the 2nd largest district in banadir region. Geographically it lies south western part of Mogadishu the district was established in 1970s.Benadir hospital built in 1977, and is the largest hospital in the whole country and as such serves as the nerve of Mogadishu, the largest city in Somalia and it is the only recognized 'National Referral Hospital' in the country. The study was focused factors influencing miscarriage on reproductive women, so target population was pregnant women that were suffer on miscarriage in banadir hospital at wadajir district.

2.3Sample Size and Instrument for data collection

The sample size of this was 45participates of 50 miscarriages who attended banadir hospital during 20 days of data collection phase from day 1-20 may 2017. Five remained refused to participate our data collection. This study used non probability technique and participates 45 respondents those were miscarriage women was attending banadir hospital at wadajir district.

2.4Data Processing and Analysis

The researcher was quantitative data analysis in this study, to analyze the data SPSS (statistically package for the social science used. the researchers used descriptive statistics to describe the variables in this study. as percentage and graphs.

2.5 Ethical Consideration and Approval

In this study the researchers should keep on the ethical issue through the research project by keeping the privacy, confidentiality and the secrecy of respondents, to maintain ethical issue the researchers requested the victim accepted the questionnaire the researchers was receive permission latter from jamhuriya university for science and technology.

3.0 Results

The results of the study were presented using frequency tables and figures.

Take folic acid	Frequency	Percent
YES	20	44.4
NO	25	55.6
Total	45	100.0

3.1 Respondents by do you ever take folic acid during pregnant?

Table 3.1 Respondents by do you ever take folic acid during pregnant?

Table above shows the status of respondents of the study 20(44.4%) of respondents were said YES, while another 25(55.6%) of respondents were said NO. so that this indicates the majority of respondents were not take folic acid during pregnant.

Any idea about miscarriage	Frequency	Percent (%)
YES	14	31.1
NO	31	68.9
Total	45	100.0

3.2 Respondents by Do you have any idea about miscarriage?

Tables 3.2 Do you have any idea about miscarriage?

Above shows 14(31.1%) of respondents said YES with the question saying Do have any idea about miscarriage? While another respondents 31(68.9%) were said NO.

Any problem	Frequency	Percent (%)
Yes	28	62.2
No	17	37.8
Total	45	100.0

3.3 Respondents by Do you have any problem after miscarriage?

Table 3.3 Do you have any problem after miscarriage?

The above shows the most respondents 28(62.2%) were said YES with the question do have any problem after miscarriage while the remained respondents 17(37.8%) were said NO.

4.0 Discussion

Respondents 9(20%) of respondents were between the age 15-20 years while16 (35.6%) of them were between 21-30 years of age the other hand14 (31.1%) and the last group were 6(13.3%) above 30 years of age. Other literatures also confirmed According(SunJae Jung 2015) many studies shows the majority of women effected miscarriage were agree in this study, we aim to evaluate the association between underweight, as well as obesity, at age 18–20 and the risk of SA in the Korean population. Experience of pregnancy, or no information on their parity. Additionally, we excluded the 20,729 women who had missing information on weight or height at ages 18–20 years. A total of 1,244 women with a first pregnancy before age 18 or 20 or with unknown age of first pregnancy and 316 women with missing data on spontaneous abortion were also excluded. The respondents did you ever take folic acid during pregnant? of the study 20(44.4%) of respondents were said YES, while another 25(55.6%) of respondents were said NO. so

Study conducted in China to evaluate the prevention of neural tube defects with folic acid supplementation. The sample comprised 207 936 singleton live births delivered at gestational ages of 20–42 weeks to women from two provinces in southern China. The incidence of preterm birth was significantly lower among folic acid users (5.28%) than among non-users (6.10%). Folic acid use showed a 14% risk reduction for preterm birth overall (Zhiwen Li at el 2014).

The largest study to report the protective effect of folic acid supplementation against preterm birth was conducted by Bukowskiet al .In a secondary analysis of the FASTER trial, they described that pre conception folic acid supplementation for1 year or longer is associated with a 70% decrease in the risk of spontaneous preterm delivery at 20–28 weeks and a 50% decrease in the risk of spontaneous preterm delivery at 28–32 weeks compared with no supplementation. (Min Woo Kim *at el*,2014).

The majority of respondents 34(75.5%) were said YES while remained respondents were said NO. on the statement shows Did you think if you lifting heavy objectives can cause miscarriage? According to the previous study were saying ,These findings are generally consistent with previous literature on occupational and recreational physical activity Miscarriage information in this study relied upon self-reported reproductive history, Elevations in miscarriage risk associated with postural effects may be due to increases in intra-abdominal pressure, leading to decreased blood flow to the fetus bending and lifting postures may increase intra-abdominal Pressure approximately 8 times the pressure seen in an upright walking posture (EY Wong *at el* 2010). Occupational hazards inherent in

physically demanding jobs must be considered. For example, experts caution against engaging in shift work that requires persistent heavy workloads including strenuous lifting, long hours of standing, or exposure to loud noise or vigorous vibrations. However, the risk for abnormalities in birth outcomes from physically demanding work is not clear; many potential biases and sources of error exist in available studies (Roger L at el 2000). studies described the relationship between five common occupational exposures prolonged working hours, shift work, lifting, standing and heavy physical workload and three major adverse outcomes, namely preterm delivery, low birth weight and preeclampsia (Claudia A Snijderet.al 2012). Respondents of this study 24(53.3%) were said NO, another 21(46.7%) were said YES in the question do you make excessive exercise during pregnant other study confirmed these results In the existing body of literature, exercise during pregnancy has generally not been associated with miscarriage, and one case–control study has even reported a protective effect of exercise during pregnancy.20 In contrast, found an increased risk of early miscarriage among women who reported high physical strain around the time of implantation of the embryo.(M Madsen at el 2007). The qualification of respondents, the content of qualification provided in the questionnaires was under primary, primary, secondary, and university. The majority of respondents 24(53.3%) of the respondents were under primary, 13(28.9%) were primary while others 5(11.1%) were secondary and remained groups 3(6.7%) were university. This means the most mothers visit in place of study were under primary. The previous study shows Knowledge and attitudes towards abortion services are important factors in decision-making processes for access to reproductive healthcare among Zambian women knowledge regarding the abortion law was strongly associated with their level of

education (Jenny A Cresswell, *at el* 2016) Respondents shows 23(51.1%) were said YES and rested others 22(48.9%) respondents were said NO. on the question saying Did you seek medical care after occurrence of miscarriage another studies were confirmed these results. In a study of all women in the Swedish Medical Birth Register we found that the number of cases of self-reported miscarriage had increased in Sweden during this 21 year period. This increase can be explained by the introduction of sensitive pregnancy tests around 1990, as well as an increase in the mean age of the mothers, by approximately 3 years, during the observation period.

The risk of miscarriage is 13% with the first child. With subsequent pregnancies, the risk of miscarriage is 8%, 6% and 4% with the second, third and fourth child, respectively. Thirteen of these women who had suffered a recent miscarriage were interviewed four months later, and their feelings of guilt and emptiness Were explored. Their experience was that they wanted their questions to be answered, and that they wanted others to treat them as the mothers to be that they felt themselves to be. (Annsofie Adolfsson, et *al* 2006). Respondents 28(62.2%) were said YES with the question do have any problem after miscarriage while the remained respondents 17(37.8%) were said NO. other studies shows 150 hospitalized women, presenting with infertility, who had had a miscarriage or medically induced abortion,.(SeviGia koumelou *at*, *el* 2015).

The association of *U. urealyticum* with pregnancy outcomes has been suggested by many observational studies and proof of causality in spontaneous abortion remains to be confirmed. (Amjad Ahmadiat, el 2014).

5.0 Conclusion

The conclusion of this study conducted in benadir hospital at wadajir district indicates, the factors influencing miscarriage among pregnant women in banadir hospital at wadajir District, the majority of respondents were mother's age between 21-30 years and most effected miscarriage were sitting wadajir district on villages bulaxubey, nastexo and sour ding area. 57.8 % of respondents said not known that folic acid deficiency can cause miscarriage while 55.6% of respondents said no on taking folic acid during pregnant. 68.9% of respondents said no idea about miscarriage, so poor knowledge on mothers increases occurrence of miscarriage which include 57.8% not known miscarriage can cause infection, 62.2% problems occurred after miscarriage.

Reference

- Assifi, A. R., Berger, B., Tunçalp, Ö., Khosla, R., &Ganatra, B. (2016). Women's Awareness And Knowledge Of Abortion Laws: A Systematic Review. *Plos* One, 11(3), E0152224.
- Banadakoppa, M., Chauhan, M. S., Havemann, D., Balakrishnan, M., Dominic, J. S., &Yallampalli, C. (2014). Spontaneous Abortion Is Associated With Elevated Systemic C5a And Reduced Mrna Of Complement Inhibitory Proteins In Placenta. Clinical And Experimental Immunology, 177(3), 743–749. <u>Http://Doi.Org/10.1111/Cei.12371</u>
- Poorolajal, J., Cheraghi, P., Cheraghi, Z., Ghahramani, M., &Irani, A. D. (2014). Predictors Of Miscarriage: A Matched Case-Control Study. *Epidemiology And Health*, 36.
- Yan, S. F., Liu, X. Y., Cheng, Y. F., Li, Z. Y., Ou, J., Wang, W., & Li, F. Q. (2016). Relationship Between Intrauterine Bacterial Infection And Early Embryonic Developmental Arrest. *Chinese Medical Journal*, 129(12), 1455.
- Chaloumsuk, N. (2013). Women's Experiences Of Miscarriage And Termination Of Pregnancy For Fetal Anomaly In Thailand: A Phenomenological Study (Doctoral Dissertation, University Of East Anglia).
- Adolfsson, A., Arbhede, E., Marklund, E., Larsson, P. G., & Berg, M. (2015). Miscarriage—Evidence Based Information For The Web And Its Development Procedure. Advances In Sexual Medicine, 5(04), 89.
- Moscrop, A. (2013). 'Miscarriage Or Abortion?'Understanding The Medical Language Of Pregnancy Loss In Britain; A Historical Perspective. *Medical Humanities*, Medhum-2012.
- Chaloumsuk, N. (2013). Women's Experiences Of Miscarriage And Termination Of Pregnancy For Fetal Anomaly In Thailand: A Phenomenological Study (Doctoral Dissertation, University Of East Anglia).
- Liu, J., Blair, S. N., Teng, Y., Ness, A. R., Lawlor, D. A., &Riddoch, C. (2011). Physical Activity During Pregnancy In A Prospective Cohort Of British Women: Results From The Avon Longitudinal Study Of Parents And Children. European Journal Of Epidemiology, 26(3), 237-247.
- Wong, E. Y., Ray, R., Gao, D. L., Wernli, K. J., Li, W., Fitzgibbons, E. D., ... & Thomas, D. B. (2010). Physical Activity, Physical Exertion, And Miscarriage Risk In Women Textile Workers In Shanghai, China. American Journal Of Industrial Medicine, 53(5), 497-505.
- Bonde, J. P. E., Jørgensen, K. T., Bonzini, M., & Palmer, K. T. (2013). Risk Of Miscarriage And Occupational Activity: A Systematic Review And Meta-Analysis Regarding Shift Work, Working Hours, Lifting, Standing And

Physical Workload. Scandinavian Journal Of Work, Environment & Health, 39(4), 325.

Guelfi, K. J., Wang, C., Dimmock, J. A., Jackson, B., Newnham, J. P., & Yang, H. (2015). A Comparison Of Beliefs About Exercise During Pregnancy Between Chinese And Australian Pregnant Women. *Bmc*

and Childbirth, 15(1), 345.

- Broberg, L., Ersbøll, A. S., Backhausen, M. G., Damm, P., Tabor, A., &Hegaard, H. K. (2015). Compliance With National Recommendations For Exercise During Early Pregnancy In A Danish Cohort. *Bmc Pregnancy And Childbirth*, 15(1), 317.
- Nascimento, S. L., Surita, F. G., Godoy, A. C., Kasawara, K. T., & Morais, S. S. (2015). Physical Activity Patterns And Factors Related To Exercise During Pregnancy: A Cross Sectional Study. *Plos One*, 10(6), E0128953.
- Sengpiel, V., Bacelis, J., Myhre, R., Myking, S., Devold Pay, A. S., Haugen, M., ...Jacobsson, B. (2014). Folic Acid Supplementation, Dietary Folate Intake During Pregnancy And Risk For Spontaneous Preterm Delivery: A Prospective Observational Cohort Study. Bmc Pregnancy And Childbirth, 14, 375.
- Gaskins, A. J., Rich-Edwards, J. W., Hauser, R., Williams, P. L., Gillman, M. W., Ginsburg, E. S., ... &Chavarro, J. E. (2014). Maternal Prepregnancy Folate Intake And Risk Of Spontaneous Abortion And Stillbirth. Obstetrics And Gynecology, 124(1), 23.
- Hekmatdoost, A., Vahid, F., Yari, Z., Sadeghi, M., Eini-Zinab, H., Lakpour, N., &Arefi, S. (2015). Methyltetrahydrofolatevs Folic Acid Supplementation In Idiopathic Recurrent Miscarriage With Respect To Methylenetetrahydrofolatereductase C677t And A1298c Polymorphisms: A Randomized Controlled Trial. Plos One, 10(12), E0143569.
- Li, Z., Ye, R., Zhang, L., Li, H., Liu, J., &Ren, A. (2014). Periconceptional Folic Acid Supplementation And The Risk Of Preterm Births In China: A Large Prospective Cohort Study. International Journal Of Epidemiology, 43(4), 1132–1139
- Barua, S., Kuizon, S., &Junaid, M. A. (2014). Folic Acid Supplementation In Pregnancy And Implications In Health And Disease. *Journal Of Biomedical Science*, 21(1), 77.
- Kim, M. W., Ahn, K. H., Ryu, K.-J., Hong, S.-C., Lee, J. S., Nava-Ocampo, A. A., ... Kim, H.-J. (2014). Preventive Effects Of Folic Acid Supplementation On Adverse Maternal And Fetal Outcomes. Plos One, 9(5), E97273.
- Mantovani, E., Filippini, F., Bortolus, R., & Franchi, M. (2014). Folic Acid

Supplementation And Preterm Birth: Results From Observational Studies. *Biomed Research International*, 2014.

Li, L., Leung, P. C., Chung, T. K. H., & Wang, C. C. (2014). Systematic Review Of Chinese Medicine For Miscarriage During Early Pregnancy. *Evidence-Based Complementary And Alternative Medicine*, 2014.