

Impact of Mothers' Attitudes towards Antenatal Care In Al-Hawata Area, AL-Gadarif State, Sudan March 2014 -February 2017

Fatma Issa Ibrahim Mohamed^{1*}, Sara Lavinia Brair², Syeda Idryse Abad AL-Rahaman³

¹Lecturer in Nursing at the Faculty of Applied Medical Sciences, University of Al-Gezira, Sudan

²Associate professor in Community Medicine department at the Faculty of Medicine, University of Al Neelin, Sudan

³Associate professor in Community health at the Faculty of Applied Medical Sciences, University of Al-Gezira, Sudan

Original Research Article

*Corresponding author

Fatma Issa Ibrahim
Mohamed

Article History

Received: 02.11.2018

Accepted: 08.11.2018

Published: 30.11.2018



Abstract: The acceptance of antenatal care (ANC) is generally poor and inadequate in many developing countries such as Sudan. The study was aimed to evaluate the attitudes of pregnant women towards antenatal care. Methodology: Quasi-experimental study one group, conducted among 150 pregnant women attending ANC, in Al-Hawata area. Their age ranged between (15 – 49) years, in first and second trimester. The data collected by using self-administered questionnaires for literate subjects and interviewer administered for illiterate. Statistically analyzed used statistical package for social sciences (SPSS) version 20. Finding: It was found that almost the variables such as education, number of antenatal visits, diet requirement during pregnancy has significant association with women's education, P Value =0.0001. Also the result of this study showed that there was (84 %) of study group changed to positive attitude post intervention with mean score 45.71 to 74.54. From the findings of the study periodic health education for pregnant women to raise awareness on antenatal care and minimize unhealthy cultural practices is recommended.

Keywords: Attitudes, Maternal Mortality, Mothers' Education, Sudan.

INTRODUCTION

Worldwide complications during pregnancy and childbirth were leading causes of death and disability among women of reproductive age [1]. In 2010, there were around 287,000 maternal deaths Globally [2]. A large majority of these deaths are preventable and almost all of the deaths (99%) occur in low-income countries [1].

Good quality of antenatal care can reduce maternal morbidity and mortality rate, improves maternal health, decreases the chances of suffering from anemia, pregnancy induced hypertension and preterm labor [3]. Adequate monitoring of pregnant women is related to benefits for both the mother and the fetus and future baby, enabling the detection and timely treatment of morbidities, reducing the incidence of low birth weight and prematurity and promoting breast feeding [4].

Antenatal care includes education, counseling, screening, treatment, monitoring and promotion the well-being of the mother and fetus [5]. ANC provides preventive interventions and information which are vital for detecting and managing complications during pregnancy and childbirth [6]. According to The Millennium Development Goals report 2012, ANC is an important intervention which can reduce maternal morbidity and mortality.

The aim of antenatal care

To provide regular medical and nursing care during pregnancy, by the medically trained health care providers. It includes providing health information about pregnancy, dangerous signs and symptoms, risks of labor and delivery, with the assistance of skilled health care provider etc [7]. ANC also provides information about fetal growth and development and its relationship to the mother's health and promotes healthy lifestyle [2]. Reviewing the effectiveness of different models for ANC, WHO recommends minimum four antenatal visits for the uncomplicated pregnancies (routine ANC) and more visits for complicated cases (special care) based on requirement [7].

Importance of mothers' education on -ANC

Maternal morbidity and mortality has reduced significantly in developed countries in last few decades, however, the situation is different in developing regions of the world where most of the death occurs [8]. According to a worldwide survey study, maternal mortality rate tends to be higher in countries where

female literacy rate is lower than their male counterparts. The study also revealed women's education as a moderately powerful indicator of maternal mortality and women's education can provide the knowledge to demand and seek proper health care important to negate complications [3]. Education is an important component of ANC, particularly for women who are pregnant for the first time [9].

MATERIALS AND METHODOLOGY

Study design

Quasi experimental study pre and post-intervention one group, was conducted in antenatal center, aiming to evaluate the impact of health education program on mother's attitudes towards antenatal care.

Study setting

Al- Hawata is the one of administrative unit of Al-Gadarif state. It's located in the North West Al-Gadarif.

Study population

Pregnant women's in first and Second trimester, age between (15-49) years attending antenatal center in Al-Hawata area from the period of (April 2016 –August 2016).

Inclusion criteria

- Pregnant women in the first and second trimester
- Pregnant woman was available during study period.
- Pregnant woman was willing to participate in the study.

Sample size

The sample size respected for the study was 150 pregnant women attending antenatal center during the period of study from March 2016- February 2017.

Method of data collection

A standardized questionnaire was used to collected data include (socio demographic data, attitude about ante natal care, diet, exercise during pregnancy preventing anemia, lifestyle, and care for the new born). The data was collected in three phases.

Pre intervention phase

Preprogram questionnaire done by the researcher full by data collector team after take information from participant.

Interventional phase

Selected sample women after complete the preprogram questionnaire within (10-15) minutes the interventional phase take place the data collectors team give all participant health education about antenatal visits, screening test during pregnancy, diet, how to

prevent anemia, hygienic precaution, exercise, lifestyle, how to prepare themselves for labor and care for new born baby.

Hand out related to antenatal care including (diet in pregnancy preventing anemia, hygienic precaution, exercise, and preparing woman for labor and care for the new born) was designed by the researcher and distributed for each respondents.

Follow-up phase

One month after health education program, post questionnaire one was carried out then after three months' post questionnaire two. The data collectors' team fulfills the questionnaire from the available women at the time of health education program.

Pretesting of questionnaire

Pretesting was carried on small of participants (20) to insure the feasibility, and validity of interview questionnaire

- Variables:
- The questionnaire was including these variables:
- Background information:
- These background characteristic include age, education level, occupation and marital status, number of children and age of the last child.

Dependent variables

- Women's Attitude about antenatal care.

Independent variables:

- Teaching program on mothers' attitudes, regarding antenatal care.

Training of data collectors

Twelve female interviewers and three field supervisors of graduate education level were hired they were trained by seminar for three days focusing on skills of how conducting the interviewing. The seminar had eight objectives.

- Define antenatal care.
- Discuss the signs and symptom of pregnancy.
- Statement antenatal schedule visits.
- Discuss the safe food requirement during pregnancy and how to prevent anemia during pregnancy.
- Describe the danger signs and symptom of pregnancy.
- Discuss the lifestyle and hygienic precaution for the pregnant women.
- Explain how to conduct the interviewing.
- Explain how to give health education to the women.

Each objective had clearly stated content and time frame for presentation. Presenter teaching strategies include power point presentation lectures and

hand out. The conduct was based on antenatal care standards by WHO [2].

Data analysis and clearance

The data analyzed used statistical package for social sciences (SPSS) version 20. After cleaning the data, frequencies and percentages was calculated to all variables which were related to the objectives of the study. Odds ratio with 95 % confidence interval was computed to assess the presence and degree of association between dependent and independent variables. P-value less than 0.05 were considered significant. Moreover, logistic regression analysis was also being employed to control the possible confounding effect and assess the separate effects of the variables.

Evaluation criteria

Attitude on antenatal care

There were 14 statements with 5-point Likert Scale agreement options to measure the attitude level

which were given 1 to 5 marks. For the purpose of this paper, the response to the option for agrees and disagrees. The minimum score was 13 and the maximum score was 75.

Ethical consideration

Ethical clearance was obtained from the Institutional Review Board at Al-Neelain University. Permission was obtained from local health authority and informed consent was obtained from individual participants prior the interview.

RESULTS

Demographic characteristics of the study sample:

This study was composed of 150 pregnant women in the first and second trimester their age between (15-49) years with mean (34). The highest percentage of study group were house wife (84%), (7%) illiterate, (55%) have (3-6) children showing in table-1.

Table-1: Demographic characteristics of study sample

Variables	Characteristics	frequency	Percentages %
Age group (year)	Less than 15	5	3.3
	(15-22)	35	23.3
	(23-30)	46	30.7
	(31-37)	36	24.0
	(38-44)	28	18.7
	(45-49)	0	0
Education level	Illiterate	11	7.3
	Khalwa	17	11.3
	Primary	40	26.7
	Secondary	62	41.4
	University	20	13.3
Marital status	Married	143	95.3
	Divorced	7	4.7
	Widowed	0	0
Number of child	Less than 3	52	34.7
	(3-6)	83	55.3
	7 and more	15	10.0
Employment status	Unemployed	29	19.3
	employed	99	66.0
	House wife	22	14.7
	Retired		
Age of last child (year)	Less than two	29	19.3
	(2-3)	99	66.0
	More than three	22	14.7

Table-2: Correlation between women attitudes and demographic characteristics of study sample

	Sum of squares	df	Mean Square	Of F	Sin(P-value)
age	1.362	4	.340	1.244	0.295
Education level	13.992	4	3.498	18	0.000
Marital status	0.091	2	0.046	0.164	0.849
occupation	10.235	4	2.55	12.036	0.000
Number of children	1.604	3	0.802	2.987	0.042
Age of last baby	2.382	3	0.794	2.99	0.033

Table-2 Showed that there was significant association according to education level, ation occupation and mothers have more than three children.

Attitude on antenatal care

Result showed that the attitude level of the women ranged from 13 to 65 with pre mean score 45.71 (SD=15) to 72, 54 (SD=31), 72.52 (SD 30.5). The score

was normally distributed. The attitude score was further divided to two levels which are good attitude and poor attitude using the mean attitude score. The proportion of respondents with good attitude was 55(36.7%) to 121 (80.7, %), 119 (79.3%). with 95% confident interval, for the individual questions, it was noted that there was change to positive attitude.

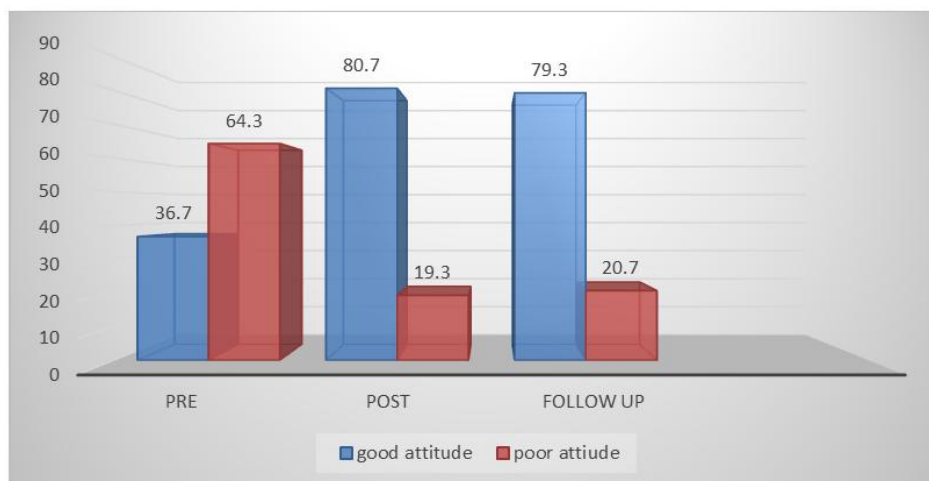


Fig-1: Attitude about antenatal care

Table-3: Scale of attitudes of study group

Attitude	Pre education				Post education				P.V.
	Agree	Disagree	sometime	mean	Agree	disagree	sometime	mean	
Pre natal planning for pregnant	35	109	6	1.9530	127	9	14	1.9732	0.00
Regality of antenatal visits	21	129	0	1.3154	150	0	0	1.6074	0.000
Effect of pregnant diet to her fetus	26	110	14	2.000	138	0	12	2.3423	0.001
Consuming iron and folic acid	28	78	44	1.0548	77	9	73	1.8523	0.001
Having enough fluid	72	55	23	1.0336	138	4	8	1.6711	0.000
Using food rich of calcium	89	35	26	1.7383	137	9	4	1.8993	0.000
doing exercise	56	93	11	1.0134	136	0	14	1.9128	0.000
Having rest during the day	74	58	18	1.0268	140	0	10	1.6980	0.001
Had food taboos	36	114	-	1.3423	0	150	0	1.7785	0.001
Using medication without doctor advice	71	67	12	1.0537	6	117	27	1.9195	0.000
Having regular diet	26	110	14	1.1208	120	18	12	1.6376	0.003
consumption of fast food	72	70	8	1.8591	50	81	19	1.9262	0.000
Preparing the breast	50	71	29	2.0270	116	20	14	2.1007	0.005
Refuse house work	43	72	35	1.4832	108	17	25	2.02940	0.004

Table-4: Correlation between pre and post-test of respondents

correlation	Group	N	mean	St-D	T-Value	P-value
	pre	150	45.71	15		
	Post	150	72.54	31		
	Follow up	150	72.52	30.5		

Table-3 revealed that there was remarkable change to positive attitude after education program.

Table 4 showed there was strong significant correlation between pre & post education.

DISCUSSION

The result of this study revealed that the mean age of respondents was between (23-30) years. Also this study showed that the highest percentage of study group were house wives (84%), (7%) illiterate, (55%) have (3-6) children.

There was no significant association found between age group and over all attitudes towards antenatal care P-Value = 0.292. This was similar to what had been reported by Fatme Davari, who reported that there was no significant found between age and over all belief = p-Value 0.35, and disagree with Agrwal *et al.*, which reported that there was correlation between age and mothers' knowledge and attitudes P-Value = 0.002 [10, 11].

Findings of this study were similar to findings by Fatme Davari, who said that mothers' awareness regarding antenatal care was significant association with education level P Value= 0.000, and not significant with increasing party P Value = 0.667 [10].

Pregnant women's attitudes:

Al Shameri at found in his study, educated mothers had more prenatal visits P Value= 0.001. This was not finding in this study P Value = 0.690 [12].

This study revealed that 64.7 percentage of respondent were not satisfied the services provided at ANC clinic, and they say that they had financial reasons.

With regarding beliefs about effect of tea, coffee and consuming fast food to pregnant women, this study reported that the majority of pregnant women un employed had lower consuming tea, coffee and fast food during pregnancy, among the pregnant women who employees, this was similar to what had been carried out by Okunaig who said that there was significant association between employment and nutritional practice during pregnancy [13].

The result of this study emphasized that there was correlation between respondent's beliefs about use of iron and folic acid supplementation and education level. P value = 0.002, this similar to what had been mentioned by Seyed Jalid, who stated that the medium score of attitudes improves after the education intervention [14].

There was 37.3% of study group had not practice any exercise during pregnancy but post education program the parentage was 93% this agrees to what had been reported by Chidozie E. M who said that most women belief that antenatal exercise reduces risk of back pain and prevent weight gain [15].

The findings of this study showed that there were only 35% of study groups prepare their breast for feeding; this was similar to what had been mentioned by Aliya Hisam who said that about 70% of respondents did not prepare the breast for feeding [16].

Also this study revealed that there was 33% of study group had food taboos during pregnancy before education program while post education percentage was lowered to 4.0%, this is similar to what had been reported by Ezeama and Ezeamah, they found that there was strong positive relationship exists between pregnant education level and food taboos during pregnancy P Value = 0.00001 [3].

The result of this study finding that there were about 47.3% of respondents consuming self-medication, the percentage lowered after education program to 4% PV. 0.000, this findings disagree with study done by Mohamed Hossen, which supposed that there was no significant association between education level and self-medication uses P Value = 0.23. And in agree with study done by Noha, which reported that most of women generally believed that medication are not harmful yet, they should be used it's cautiously during pregnancy [17, 18].

CONCLUSION

The result of this study showed strongly change to positive attitude after education program and also emphasized that the education was positively associated with women attendance of ANC but not avoiding indigenous beliefs that have implication for the health care seeking during pregnancy. Hence periodic programs such as education program for pregnant women to raise awareness on antenatal care in study area.

REFERENCES

1. The Millennium Development Goals report 2011. New York, United Nations, 2011. Available at: http://www.un.org/millenniumgoals/11_MDG%20Report_EN.pdf
2. World Health Organization, & Unicef. (2012). Trends in maternal mortality: 1990 to 2010: WHO, UNICEF, UNFPA and The World Bank estimates.
3. Ezeama, M. C., & Ezeamah, I. (2014). Attitude and socio-cultural practice during pregnancy among women in Akinyele LGA of Oyo State Nigeria. *Journal of Research in Nursing and Midwifery*, 3(1), 14-20.
4. Silva, E. P. D., Lima, R. T., Costa, M. J. D. C., & Batista Filho, M. (2013). Desenvolvimento e aplicação de um novo índice para avaliação do pré-natal. *Revista Panamericana de Salud Pública*, 33, 356-362.
5. Alam, A. Y., Qureshi, A. A., Adil, M. M., & Ali, H. (2005). Comparative study of knowledge,

- attitude and practices among antenatal care facilities utilizing and non-utilizing women. *J Pak Med Assoc*, 55(2), 53-56.
6. Donnay, F. (2000). Maternal survival in developing countries: what has been done, what can be achieved in the next decade. *International Journal of Gynecology & Obstetrics*, 70(1), 89-97.
 7. US Department of Health and Human Services: Healthy People 2010. Maternal, Infant, and Child Health. 2000; 16. Vol. II, 2nd ed.
 8. Heaman, M. I., Newburn-Cook, C. V., Green, C. G., Elliott, L. J., & Helewa, M. E. (2008). Inadequate prenatal care and its association with adverse pregnancy outcomes: a comparison of indices. *BMC Pregnancy and Childbirth*, 8(1), 15.
 9. Matsuyama, A. (2012). Effects of Women's Education on Antenatal Care Seeking Behavior in Nepal: Qualitative and Quantitative Approaches. Center of International Collaborative Research & Institute of Tropical Medicine, Nagasaki University. available-at: http://www.jasid.org/document/en/papers/bk_14_2/2_Akiko_MATSUYAMA.pdf [Accessed on 2012-08-05].
 10. Tanha, F. D., Mohseni, M., Ghajarzadeh, M., & Shariat, M. (2013). The effects of healthy diet in pregnancy. *Journal of family & reproductive health*, 7(3), 121.
 11. Agarwal, P., Singh, M. M., & Garg, S. (2007). Maternal health-care utilization among women in an urban slum in Delhi. *Indian Journal of Community Medicine*, 32(3), 203.
 12. Al-Shammari, S. A., Khoja, T., & Jarallah, J. S. (1994). The pattern of antenatal visits with emphasis on gestational age at booking in Riyadh Health Centres. *Journal of the Royal Society of Health*, 114(2), 62-66.
 13. Okunaiya, G. A., & Fadupin, G. T. Knowledge, Attitude and practice of maternal and child food Base dietary guideline among pregnant women. In Urban Slum, of Lagos state clinic mother health 13:40.
 14. Seyed, J. M. (2007). Knowledge and practice of antenatal women about intake of iron supplementation. Iran, Acta medica: 45(4): 301-304.
 15. Chidozied E. M. (2014). Knowledge and practice of pregnant women to wards antenatal exercise. IsRn obstetrics and gynecology.
 16. Hisam, A., Rahman, M. U., & Mashhadi, S. F. (2014). Knowledge, attitude and practice regarding folic acid deficiency; A hidden hunger. *Pakistan journal of medical sciences*, 30(3), 583.
 17. Mohammed, H. (2013). Attitude and practice of pregnant women self-use medication. Iron med; 16(10): 580.
 18. Zaki, N. M., & Albarraq, A. A. (2014). Use, attitudes and knowledge of medications among pregnant women: A Saudi study. *Saudi Pharmaceutical Journal*, 22(5), 419-428.