

Barriers to Antenatal Care Utilization among Pregnant Women in a Rural Area in Egypt

Thesis

Submitted for partial fulfillment of master degree in
Family Medicine

Presented by

Mohammed Kamal El- Din Mohammed
M.B.,B.Ch.

Under supervision of

Prof. Dr. Aisha Abou El Fotouh

*Professor in Community, environmental and occupational Medicine
department*

Faculty of Medicine- Ain Shams University

Prof. Dr. Maha Mohamed El Gaafary

*Professor in Community, environmental and occupational Medicine
department*

Faculty of Medicine- Ain Shams University

Dr. Hasnaa Abou Seif

*Assistant Professor in Community, environmental and occupational
Medicine department*

Faculty of Medicine- Ain Shams University

**Faculty of Medicine
Ain Shams University
2015**



قالوا سبحانك لا
علم لنا إلا ما
علمتنا إنك أنت
العليم الحكيم

صدق الله
العظيم

سورة البقرة
الآية 32



ACKNOWLEDGEMENTS

*First and foremost, thanks to **ALLAH**.*

*I would like to thank **Prof. Dr. Aisha Abu El-Fotouh** , Prof. in community, environmental and occupational medicine , Faculty of medicine, Ain Shams university For her kind supervision, and help in the beginning of this work which impacted on the final outcome of this work.*

*No word can express my gratitude, thanks, and appreciation to **Prof. Dr Maha Mohamed El-Gaafary** , Prof. in community, environmental and occupational medicine , Faculty of medicine, Ain Shams university for her hard work , continious encouragement , valuable cooperation , honest & generous guidance, and giving me the privilege of working under her supervision during last months*

*I wish to express my sincere gratitude and deep appreciation to **Dr. Hasnaa Abu Seif** in community, environmental and occupational medicine , Faculty of medicine, Ain Shams university for her encouragement , valuable cooperation , his great enthusiastic advice throughout the work and step by step guidance .*

Also I would like to express my great thanks to my mother and my wife who were always beside.

Finally, great appreciation is dedicated to all people participated in the study.

Mohamed Kamal Eldin

Abstract

Abstract

Background:

Antenatal care (ANC) is a preventive obstetric health care program aimed at optimizing maternal- fetal outcome through regular monitoring of pregnancy.

Objectives:

To measure knowledge and attitude of pregnant women towards antenatal care, to measure adherence (practice) of pregnant and to identify factors affecting adherence to ANC.

Subjects and methods:

A cross sectional study included 342 women in child bearing period attending the family medicine unit of Bashalosh village, Met Ghamr in Dakahlia governorate. Women were interviewed after an oral consent and the pre-constructed questionnaires were filled asked for: Socio demographic characteristics of the women and family, obstetric history of the studied mother, knowledge of studied women about pregnancy and ANC, attitude of studied mother about ANC, practice of ANC and factors affecting utilization of ANC including: social, psychological,

economic causes, and ANC setting (structure and process).

Data management: Data were collected and coded then entered into a personal computer for analysis using SPSS program version 20.

Results:

The study revealed that only (33.3%) of the women had a satisfactory knowledge regarding ANC. And only (29.2%) had a positive attitude towards ANC. More than (80%) of women attended ANC, however only (40.9%) had adequate ANC (four visits or more). About (63%) of mothers reported that they received ANC service by doctor and more than fifty percent received ANC service in PHC centers. Previous history of complications during pregnancy, delivery or post- delivery influences utilization of ANC services. The most frequently reported barriers were the economic ones, whereas the least were the psychological ones. Women have mentioned setting-related barriers. These factors were mostly related to lack of female doctors, crowding, far distance, lack of privacy, long time for exam, and carelessness of nurses.

Conclusion and recommendations:

It is concluded that most of the studied women had inadequate knowledge about antenatal care, and the majority had negative attitude to-wards antenatal care. A positive association was found between women knowledge and attitude toward antenatal care satisfactory knowledge and positive attitudes were significantly associated with more utilization of antenatal care. Therefore, Communications system should be improved among community leaders, policy makers, and health system staff to identify ways of recognizing and overcoming the various barriers that might be hindering the utilization of ANC services, including economic, psychological, social and setting- related barriers.

Key words

Antenatal care, maternal mortality, developing countries, pregnant women, low utilization

Table of Contents

| | |
|---|------------|
| List of tables | I |
| List of figures | III |
| List of abbreviations | IV |
| Introduction | 1 |
| Aim of work | 5 |
| Review of literature | 6 |
| Chapter (1) Maternal health | 7 |
| Chapter (2) Antenatal Care | 13 |
| Chapter (3) Barrier to ANC | 19 |
| Chapter (4) What pregnant women expect from their family physician? | 33 |
| Chapter (5) Routine antenatal management at the Family Medicine Unit | 43 |
| Chapter (6) ANC in Egypt | 68 |
| Subjects and methods | 74 |
| Results | 81 |
| Discussion | 108 |
| Conclusion | 121 |
| Recommendations | 123 |
| Summary | 126 |
| References | 129 |
| Annex₁ | 154 |
| Annex₂ | 164 |
| Arabic summary | 171 |

List of Tables

| N. | Table | Page |
|----------------------|--|-------------|
| Table (I): | Sociodemographic data of the studied patients | 8 |
| Table (II): | Tetanus toxoid immunization schedule for women of childbearing age and pregnant women without previous exposure to Tetanus Toxoid. | 66 |
| Table (1) | Socio-demographic characteristics of respondents | 83 |
| Table (2) | Obstetric History of women in study sample | 85 |
| Table (3a) | Knowledge of Respondents' regarding timing and frequency of ANC | 86 |
| Table (3b) | Knowledge of studied women regarding importance of ANC | 87 |
| Table (3c) | Knowledge of studied women regarding services provided through ANC | 88 |
| Table (3d) | General Knowledge of studied women about pregnancy | 89 |
| Table (4) | Overall descriptive of the Knowledge Score | 91 |
| Table (5) | Respondents' Attitudes towards ANC service | 92 |
| Table (6) | Attitude score among studied women | 93 |

| | | |
|---------------------|---|-----|
| Table (7) | Antenatal care (ANC) practices in previous pregnancy | 95 |
| Table (8) | Number of ANC visits in last pregnancy among studied women | 96 |
| Table (9) | Perceived social, economic and psychological barriers hindering utilization of ANC service. | 97 |
| Table (10) | Socio-demographic characteristics of respondents in relation to number of ANC visits | 99 |
| Table (11) | Obstetric history of mothers in relation to number of ANC visits | 101 |
| Table (12) | Knowledge of studied mothers about ANC and pregnancy in relation to number of ANC visits | 102 |
| Table (13) | Attitude of studied mothers towards ANC in relation to number of ANC visits | 103 |
| Table (14) | Relation between knowledge about and attitude towards ANC among women in the study sample | 104 |
| Table (15) | Factors associated with poor ANC service utilization by regression analysis | 105 |
| Table (16) | Effect of Knowledge and attitude on ANC service utilization | 107 |

List of Figures

| N. | Figure | Page |
|--------------------|---|-------------|
| Figure (I) | Global distribution of causes of maternal mortality | 10 |
| Figure (II) | The four pillars of safe motherhood | 12 |
| Figure(III) | Trends in Maternal Health Indicators, Egypt 2008-2014 | 70 |
| Figure (1) | The total Knowledge of studied women toward ANC | 91 |
| Figure (2) | The total attitude of studied women toward ANC | 94 |
| Figure (3) | The total barrier hindering ANC utilization | 98 |

LIST OF ABBREVIATIONS

| | |
|----------------------|---|
| ACOG: | American College of Obstetrics and Gynecology |
| AIDS: | Acquired Immune Deficiency Syndrome |
| ANC: | Antenatal Care |
| BMI: | Body Mass Index |
| EDHS: | Egypt Demographic Health Survey |
| FM: | Family Medicine |
| GC/Chlamydia: | Gonococcal and Chlamydia infection |
| GPs: | General Practitioners |
| HCG: | Human Chorionic Gonadotropin |
| ICSI: | Institute for Clinical Systems Improvement |
| LMP: | Last Menstrual Period |
| MDG: | Millennium Development Goals |
| MMR: | Maternal Mortality Rate |
| MOH: | Ministry of Health |
| NICE: | The National Institute for Health and Clinical Excellence |
| PNC: | Prenatal Care |
| RPR: | Rapid Plasma Reagin |
| SGA: | Small for Gestational Age |
| TBA: | Traditional Birth Attendant |
| TT: | Tetanus Toxoid |
| UNFPA: | The United Nation Population Fund |
| WHO: | World Health Organization |

***Introduction
and
aim of the work***

Every day, approximately 1000 women die from preventable causes related to pregnancy and childbirth. . In 2008, 358.000 women died during and following pregnancy and childbirth. Almost all of these deaths occurred in developing countries, and most could have been prevented. During the year 2008, it was estimated that Egypt's maternal mortality ratio 43 per 100.000 live birth (*WHO, 2010*).

Although, most maternal and infant deaths can be prevented through safe motherhood practices, millions of women worldwide are still being affected by maternal mortality and morbidity from preventable causes. (*Banda, 2013*)

The maternal and neonatal deaths can be appropriately controlled with antenatal, intranatal and postnatal care (*Begum and Khan, 2009*).

Most of the scientific research studies on maternal mortality have focused mainly on clinical factors without appreciating much the importance of the socio-economic and other macrostructure factors (*Gonzalez et.al, 2006*). The challenge is that many of the maternal deaths could be

prevented with well-known intervention such as antenatal care and skilled attendant at birth (***WHO, 2005***)

Health care during pregnancy is a crucial component of ensuring a safe delivery and a healthy mother and baby. The world Health Organization has published fundamental practices for a successful pregnancy, which include visiting a skilled health care worker at least four times during pregnancy, maintaining a healthy diet, knowing the signs of labor so as to seek delivery care at the appropriate time, and understanding danger signs during pregnancy (***WHO, 2006***).

There is a need for enhancing community awareness about the importance of antenatal care (ANC), educating women about early detection of complications during pregnancy and promptly seeking care (***Chandhiok et al., 2006***). Women who receive antenatal care have lower rates of maternal and infant mortality, as well as better pregnancy outcome (***Guilford et al., 2008***)

Globally scientific evidence has shown that low utilization of ANC services is influenced by some factors such as low maternal education, teenage pregnancies, multiparity, unplanned pregnancies and cultural factors (***Simkhada et al., 2008***).