DETERMINANTS OF UTILIZATION OF HEALTH CARE AMONG WOMEN SUFFERING FROM DIABETES MELLITUS IN KIAMBU COUNTY, CENTRAL KENYA

LYDIA WAMBUI MWAURA

A THESIS SUBMITTED TO THE INSTITUTE OF ANTHROPOLOGY, GENDER AND AFRICAN STUDIES IN FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN ANTHROPOLOGY OF THE UNIVERSITY OF NAIROBI

2015
DECLARATION

This thesis is my original work and has not been presented for a degree in any other university.

Lydia Wambui Mwaura -----------------------------  -----------------------------
Signature                                      Date

This thesis has been submitted for examination with our approval as University Supervisors.

Professor Simiyu Wandibba -----------------------------  -----------------------------
Signature                                      Date

Dr. Charles Owuor Olungah -----------------------------  -----------------------------
Signature                                      Date
DEDICATION

To our late parents, Peter Wanyutu and Rachel Wanjiku, Nobert Mwaniki and Kezia Wambui, my dear husband Mwaura and our children Wambui, Mwaniki and Wanjiku for remarkable and wonderful support throughout this journey.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES</td>
<td>ix</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>x</td>
</tr>
<tr>
<td>ACKNOWLEDGMENTS</td>
<td>xi</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>xii</td>
</tr>
<tr>
<td>ACRONYMS AND ABBREVIATIONS</td>
<td>xiv</td>
</tr>
<tr>
<td>CHAPTER ONE: BACKGROUND TO THE STUDY</td>
<td>1</td>
</tr>
<tr>
<td>1.1 Introduction</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Access to and use of health care facilities</td>
<td>3</td>
</tr>
<tr>
<td>1.3 Factors influencing use of health care by women</td>
<td>6</td>
</tr>
<tr>
<td>1.4 Statement of the problem</td>
<td>7</td>
</tr>
<tr>
<td>1.5 Objectives of the study</td>
<td>9</td>
</tr>
<tr>
<td>1.5.1 General objective</td>
<td>9</td>
</tr>
<tr>
<td>1.5.2 Specific objectives</td>
<td>9</td>
</tr>
<tr>
<td>1.5.3 Assumptions of the study</td>
<td>9</td>
</tr>
<tr>
<td>1.6 Justification of the study</td>
<td>10</td>
</tr>
<tr>
<td>1.7 Scope of the study</td>
<td>12</td>
</tr>
<tr>
<td>1.8 Limitations of the study</td>
<td>13</td>
</tr>
</tbody>
</table>
1.9 Definition of key terms ........................................................................................................ 14

CHAPTER TWO: LITERATURE REVIEW ........................................................................ 16

2.1 Introduction ......................................................................................................................... 16
2.2 Global overview of women’s health .................................................................................... 16
2.3 The burden of disease in women ....................................................................................... 17
2.4 Factors influencing utilization of health care services ......................................................... 19
  2.4.1 Household support/family dynamics .......................................................................... 19
  2.4.2 Quality of health care ............................................................................................... 19
  2.4.3 Education and use of health care services ................................................................. 20
  2.4.4 Cost of seeking long-term treatment .......................................................................... 21
  2.4.5 Acceptability of services .......................................................................................... 21
2.5 Gender inequities and women’s health ............................................................................. 22
2.6 Theoretical perspectives on health care utilization .......................................................... 24
  2.6.1 Theoretical framework ............................................................................................. 25
  2.6.2 The health belief model (HBM) ............................................................................... 25
  2.6.3 Health care utilization model .................................................................................... 26
  2.6.4 Relevance of the models to health care utilization .................................................... 28
CHAPTER THREE: METHODOLOGY......................................................... 30

3.1 Introduction......................................................................................... 30

3.2 Research site...................................................................................... 30

3.2.1 Socio-cultural expression of the Gĩkũyũ people........................................... 31

3.2.2 An overview of health care delivery in Kenya.............................................. 33

3.2.3 Educational facilities............................................................................. 34

3.2.4 Main economic activities......................................................................... 35

3.3 Research design.................................................................................... 35

3.4 Study population and unit of analysis...................................................... 36

3.5 Sample size and sampling procedure...................................................... 36

3.6 Data collection methods.......................................................................... 38

3.6.1 Secondary sources............................................................................... 38

3.6.2 The survey method.............................................................................. 39

3.6.3 Key informant interviews........................................................................ 39

3.6.4 Narratives.............................................................................................. 39

3.6.5 Focus group discussions........................................................................ 40
CHAPTER FOUR: HEALTH CARE UTILIZATION AMONG WOMEN WITH DIABETES MELLITUS IN KIAMBU COUNTY

4.1 Introduction

4.2 Socio-demographic characteristics of respondents

4.2.1 Age of respondents

4.2.2 Marital status

4.2.3 Educational status

4.2.4 Main occupation

4.2.5 Religious background

4.2.6 Main sources of income

4.3 Distance and access to health services
4.3.1 Predisposing factors for seeking health care……………………………………………… 48
4.3.2 Distance to health facility……………………………………………………………… 50
4.3.3 Mode of transport from home to the health facility…………………………………… 52
4.3.4 Diabetes clinic attendance…………………………………………………………… 53
4.3.5 Onset of seeking treatment…………………………………………………………… 54
4.3.6 Disease burden……………………………………………………………………… 55
4.3.7 Choice of health facility…………………………………………………………… 57
4.3.8 Age at diagnosis with diabetes mellitus……………………………………………… 58
4.3.9 Perceptions of diabetes mellitus by the community…………………………………… 59
4.3.10 Services provided at the diabetes clinic……………………………………………… 60
4.3.11 Operating hours at the diabetes clinic……………………………………………… 61
4.4 Multiplicity of roles and health-seeking behaviour……………………………………… 62
4.4.1 Decision-making and utilization of health care……………………………………… 62
4.4.2 Seeking permission…………………………………………………………………… 64
4.4.3 Payment for health services………………………………………………………… 65
4.4.4 Perceptions of affordability of health services……………………………………… 66
4.4.5 Health insurance policy………………………………………………………….. 68
4.4.6 Health education on diet and personal care……………………………………... 68
4.5 Interactions with the health care system…………………………………………… 71
4.5.1 Perceptions of attitude of service providers by respondents……………………. 71
4.5.2 Acceptability of available health care………………………………………….. 72
4.5.3 Satisfaction with the health services……………………………………………. 76
4.5.4 Causes of dissatisfaction………………………………………………………… 77
4.5.6 Frequency of sourcing drugs from chemists…………………………………….. 78
4.5.7 Waiting time……………………………………………………………………….. 80

CHAPTER FIVE: VOICES OF WOMEN WITH DIABETES MELLITUS.............. 85
5.1 Introduction………………………………………………………………………….. 85
5.2 Voices of the women………………………………………………………………… 85

CHAPTER SIX: DISCUSSION ................................................................. 105
6.1 Introduction…………………………………………………………………………... 105
6.2 Discussion…………………………………………………………………………... 105
CHAPTER SEVEN: SUMMARY, CONCLUSION AND RECOMMENDATIONS… 126

7.1 Introduction ............................................................................................................. 126

7.2 Summary .................................................................................................................. 126

7.2.1 The health belief model ....................................................................................... 126

7.2.2 The health care utilization model ......................................................................... 127

7.2.3 Effect of distance on access to health services by women .................................... 129

7.2.4 Influence of multiple roles on seeking health care .............................................. 130

7.2.5 Attitude of health providers ................................................................................. 131

7.3 Conclusion ............................................................................................................... 132

7.4 Recommendations ................................................................................................ 134

7.5 Further research ..................................................................................................... 135

REFERENCES .............................................................................................................. 136

APPENDICES ............................................................................................................... 148

Appendix 1: Informed consent document ................................................................. 148

Appendix 2: Survey questionnaire ............................................................................. 149
Appendix 3: Key informant interview guide ....................................................... 154
Appendix 4: Case narrative guide ................................................................. 155
Appendix 5: Focus group discussions guide .................................................. 156
Appendix 6: Observation checklist ............................................................... 157
# LIST OF TABLES

**Table 4.1:** Distribution of respondents by age categories ................................. 45

**Table 4.2:** Occupational status of respondents ................................................. 47

**Table 4.3:** Main sources of income of the respondents ..................................... 48

**Table 4.4:** Factors to consider when choosing health facility ............................... 49

**Table 4.5:** Type of transport from home to health facility .................................... 52

**Table 4.6:** Frequency of diabetes clinic attendance ............................................. 54

**Table 4.7:** Onset of seeking treatment ................................................................. 54

**Table 4.8:** Co-morbidity with diabetes mellitus .................................................. 55

**Table 4.9:** Choice of health facility .................................................................... 57

**Table 4.10:** Perceptions of diabetes mellitus by the community ............................. 60

**Table 4.11:** Type of services given at the diabetes clinic ....................................... 61

**Table 4.12:** Decision to attend diabetes clinic ..................................................... 63

**Table 4.13:** Person who pays for health services .................................................. 66

**Table 4.14:** Affordability of health services ......................................................... 67

**Table 4.15:** Acceptability of health care ............................................................... 75

**Table 4.16:** Dissatisfaction with health services .................................................. 78

**Table 4.17:** Time spent at the health facility ........................................................ 80
# LIST OF FIGURES

**Figure 2.1:** The Health Belief Model .......................... 26

**Figure 2.2:** Steps in health care utilization model .................. 27

**Figure 2.3:** Conceptual Model .................................... 29

**Figure 3.1:** Map of Kiambu County showing sub-Counties........ 31

**Figure 3.2:** Map of Kiambu County showing sampled sub-Counties and public health facilities .................. 38

**Figure 4.1:** Marital status ........................................ 45

**Figure 4.2:** Respondents’ educational level ...................... 46

**Figure 4.3:** Distance to health facility .............................. 51

**Figure 4.4:** Age of respondents at diagnosis with diabetes mellitus . 59

**Figure 4.5:** Permission to attend diabetes clinic .................. 65

**Figure 4.6:** Health insurance cover ............................... 68

**Figure 4.7:** Health education on diet and personal care .............. 69

**Figure 4.8:** Attitude of health providers .......................... 71

**Figure 4.9:** Satisfaction with available health services .............. 77

**Figure 4.10:** Sourcing drugs from chemists ...................... 79

**Figure 7.1:** Summary of determinants of health-seeking behaviour ...... 128
ACKNOWLEDGMENTS

To God be the glory.

My deepest gratitude in the course of this work goes to my University supervisors, Professor Simiyu Wandibba and Dr. Charles O. Olungah, for support and guidance throughout the period of implementation of this study. Thank you for your commitment, patience, direction and academic brilliance that enabled me to complete this work.

I am grateful to the Director of Kenya Medical Research Institute (KEMRI) for providing financial support towards fieldwork activities. I am also grateful to my research assistants who helped me in data collection. Special thanks also go to the Ministry of Health for allowing me to access records and the public health facilities in Kiambu County. I wish to sincerely thank all the women who participated in the study for providing pertinent data. Thanks also go out to the staff in the libraries and Institute office.

I acknowledge my siblings Kimanjara, late brother Kahiga, Mumbi, Wangui, Gacui, Njeri, Kahuho, and Waithira for spiritual and moral support.

Finally, I warmly acknowledge my family for their immense support. I thank my husband, friend and mentor, Professor F. B. Mwaura for invaluable insights and our children, Wambui, Mwaniki and Wanjiku for their love, patience, proofreading this manuscript and for enduring my long working hours.

Almighty God, you alone are the giver of wisdom and knowledge. I honour You.
ABSTRACT

This study was designed to investigate the determinants of the utilization of health care among women suffering from diabetes mellitus in Kiambu County, Central Kenya. The overall objective of the study was to explore the factors determining utilization of formal health services by women with diabetes mellitus in the County. Specifically, the study sought to determine the extent to which distance to the formal health care facilities influences the health-seeking behaviour of women suffering from diabetes mellitus in Kiambu County; to establish the extent to which the multiple roles of such women influence their health-seeking behaviour; and to investigate the attitude of health care providers towards women suffering from diabetes mellitus in that County.

The study was guided by the health belief model and health care utilization model. The lottery method was used to select 2 study sub-Counties, while systematic sampling was used to obtain a sample size of 200 women. Data was collected through secondary sources, survey method, key informant interviews, focus group discussions, narratives and direct observation.

The findings indicate that distance travelled from place of residence to a formal health care facility influences utilization of formal health services within the County. This is because the distance affects the women’s choice of mode of transport, cost of transport, cost of health services and choice of health facility.
The findings also show that gendered roles influence service accessibility for women. The study further found that health care system characteristics including attitude of the health providers, the type of services provided, high cost of treatment and inadequate drugs supply at the health facility pharmacies are determinants of utilization of formal health facilities.

The study, therefore, concludes that geographic accessibility influences utilization of health services among women suffering from diabetes mellitus in Kiambu County. Other factors are service cost and quality of the available health services. The study, therefore, recommends that the Kiambu County government and other actors work together towards establishing functional diabetes clinics in health centres which are closer to the people in order to reduce the distance covered by the women to get health care. The study also recommends that comprehensive care be made available in such clinics so that the various services that women get at the diabetes clinics are geographically accessible at a centralized location within the health centres to avoid long queues which impact on waiting time.
<table>
<thead>
<tr>
<th>ACRONYMS AND ABBREVIATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DM</td>
</tr>
<tr>
<td>FBOs</td>
</tr>
<tr>
<td>FGD</td>
</tr>
<tr>
<td>GIS</td>
</tr>
<tr>
<td>GoK</td>
</tr>
<tr>
<td>HBM</td>
</tr>
<tr>
<td>IDIs</td>
</tr>
<tr>
<td>KARI</td>
</tr>
<tr>
<td>KES</td>
</tr>
<tr>
<td>KII</td>
</tr>
<tr>
<td>LMICs</td>
</tr>
<tr>
<td>MDGs</td>
</tr>
<tr>
<td>NCD</td>
</tr>
<tr>
<td>NGOs</td>
</tr>
<tr>
<td>SPSS</td>
</tr>
<tr>
<td>SSA</td>
</tr>
<tr>
<td>UoN</td>
</tr>
<tr>
<td>WHO</td>
</tr>
</tbody>
</table>