

Certification

This is to certify that Odonghanro Dorinda with matriculation number LCU/PG/001126 carried out this research work titled “Assessing Willingness to Pay for HPV Vaccine among Women of known HIV Status in Lagos” in the Department of Public Health, Faculty of Public Health, Lead City University, Ibadan, Oyo state, for the award of Master of Public Health Degree (MPH) and that this has not been previously submitted.

Dr. FT Akinsolu

Supervisor

Date

Dr. Tubosun A. Olowolafe

(Head of Department)

Date

Dedication

This research work is dedicated to God almighty, my late mother Mrs Elizabeth Aboluwa Odonghanro and late sister Mrs Choice Eyione Adiman.

Acknowledgment

I wish to say a big thank you to the management of Lead City University for the opportunity given to me to carry out this research. The ethics committee of the Nigerian Institute of Medical Research and Lead City University for the ethical approval given to enable me to conduct the research. My sincere gratitude also goes to Dr. Chika and the peer counselors at the HIV treatment center at the Nigerian Institute of Medical Research (NIMR) for their assistance during the course of my eventful fieldwork in Lagos.

I got a lot of understanding of the subject matter of this project through discussions and efforts of my supervisor Dr. F.T. Akinsolu who actually introduced me to the research topic and Prof. Ezechi for his input in the course of the research, Dr. Bamjoko and Prof Opabola for their steady academic advice all through the process. I remain grateful to these great men for always being there to guide me.

I also wish to say a big thank you to my father Deacon Michael Otimeyin Odonghanro for all his love and support and to Mr. Emmanuel Aroeye for standing by and believing in me all through this program.

Even though the above-mentioned institution and persons have assisted in the process of this research work, I alone stand responsible for the errors, if any, found in the work.

Abstract

The knowledge and experience to prevent HPV-related diseases have been established especially in developed countries. Globally, the HPV vaccine has been proven to be effective in preventing especially HR-HPV 16 and 18 and is licensed for use. However, it has not been included among the vaccines given for free in National Immunization Program in Nigeria. The aim of this study is to investigate the knowledge of cervical cancer prevention and explore the willingness to pay for the HPV vaccine among women of known HIV status in Lagos State. In this cross-sectional study, investigators collected data by making use of a semi-structured questionnaire containing both closed and open-ended questions, The data were analyzed by the investigators using the statistical package SPSS version 27.0 (SPSS Inc. Chicago, IL). P values < 0.05 was considered statistically significant and ethical approval was obtained from the ethics committee of NIMR and LCU for this study. A total of 233 respondents participated in the study. The study findings showed the knowledge of HPV to be 33% which is below average. Among sources of information about HPV, health workers (17.0%) and friends (0.4%) recorded the highest and lowest respectively. Knowledge of cervical cancer among respondents was 68% and with major sources of information about the disease having health workers (69.7%) and friends (2.3%) from highest to lowest. Knowledge of the cervical cancer vaccine was 22.8% for the 233 respondents. Furthermore, findings showed a significant correlation between respondents' knowledge of the vaccine and their willingness to pay for the HPV vaccine. Knowledge and positive attitude towards HPV and HPV vaccine is a key driver that plays an important role in HPV vaccine acceptance. Though cervical cancer is a preventable and treatable cancer, it requires a broadly integrated and sustained effort by multiple stakeholders before meaningful progress can be achieved.

Keywords: HIV-positive, Cervical cancer, HPV (Human papillomavirus), Vaccine

Word Count: 302

Table of Contents

Title	Page
Certification	
Dedication	
Acknowledgement	
Abstract	
Chapter One: Introduction	
1.1 Background to the Study	1 - 5
1.2 Statement of the Problem	5 – 6
1.3 Justification of the Study	6 - 7
1.4 Research Questions	7
1.5 Aim and Objectives of Study	7 - 8
1.6 Hypothesis	8
1.7 Scope of Study	8
1.8 Significance of Study	8 - 9
1.8 Operational Definition of Terms	9 - 11
Endnotes	12 - 14
Chapter Two : Literature Review	15 - 17
2.1 Concept of Cervical Cancer	18
2.1.1 Challenges in Managing People with Cervical Cancer	18 - 22
2.1.2 Risk factors for Cervical Cancer	22 - 24
2.1.3 Cervical Cancer Stages	24
2.1.4 HPV infection cycle	25
2.1.5 Cervical Cancer Screening Methods	25
2.1.6 Cervical Cancer in Nigeria	25
2.1.7 Human Immunodeficiency Virus (HIV) in Nigeria	26
2.2 The Connection Between HIV, HPV, and Cervical Cancer	26 - 27
2.3 Current Clinical Management Recommendation	28 - 29

2.4	Human Papilloma Virus Vaccines	29 - 32
2.5	Safety of the HPV vaccine	32
2.5.1	HPV Vaccine Licensure and Policy	33
2.5.2	Predictors of HPV Vaccine Acceptability	34 - 35
2.6	Medication Administration	35
2.6.1	Treatment for Precancerous Cervical Lesions	35 - 36
2.6.2	Medication Resistance	36
2.7	Cervical Cancer Stigma	36 - 37
2.8	Prevention of Cervical Cancer	37 - 38
2.9	Summary of Gaps in Literature Review	38 - 39
	Endnotes	40 - 45
	Chapter Three: Methodology	
3.1	Research Design	46
3.2	Study Settings	46
3.3	Population of Study	46
3.4	Sample and Sampling Technique	46 - 47
3.5	Sample Size	47
3.6	Instrument of Data Collection	47
3.7	Validity of the Research Instrument	47 - 48
3.8	Reliability of the Research Instrument	48
3.9	Administration of Research Instrument and Method of Data Collection	49
3.10	Method of Analysis	49
	Ethical Approval	49 - 50
	Endnote	51
	Chapter Four: Results and Discussions of Findings	
4.1	Demographic Data Analysis	52
4.2	Presentation of Data	53 - 76

4.2.1	Research Question(s)	76 - 77
4.2.2	Test of Research Hypotheses	77 - 78
4.3	Discussion of Findings	78 – 83
	Endnotes	84 - 85
	Chapter 5: Conclusion	
5.1	Summary of Findings	86 - 88
5.2	Conclusion	88 - 89
5.3	Recommendation	89 – 90
5.4	Contribution to knowledge	90
5.5	Suggested area of further research	91
	Bibliography	92 - 131
	Informed Consent	132– 137
	Questionnaire	138 - 146
	Biodata page	147- 148
	University Compliance Certification Page	149

List of Tables

Table	Name	Page
4.1	Sociodemographic characteristics of the study participants	53 – 54
4.2	Knowledge and belief of human papillomavirus (HPV) among participants	56
4.3	Knowledge of cervical cancer	59 – 60
4.4	Knowledge of HPV vaccine	63
4.5	Attitude/willingness toward HPV vaccine	65
4.6	Factors associated with willingness to pay for HPV vaccine	67 - 71
4.7	Factors that affect willingness to vaccinate daughter(s)/sister(s)	71 – 75

List of Figures

Figure	Name	Page
4.1	Sources of information about HPV	57
4.2	Overall knowledge of HPV of respondents	58
4.3	Overall knowledge of cervical cancer among respondents	60
4.4	Major sources of information about cervical cancer	62
4.5	Major sources of information about the HPV vaccine	64
4.6	Overall knowledge of respondents about the HPV vaccine	66

List of Acronyms

Abbreviation	Meaning	Page
HPV	Human papillomavirus	1
HIV	Human immunodeficiency syndrome	1
CC	Cervical cancer	1
AIDS	Acquired immune deficiency syndrome	1
ART	Anti-retroviral therapy	1
WHO	World Health Organization	2
FDA	Food and Drug Administration	4
FMOH	Federal Ministry of Health	7
NCCP	National Cancer Control Program	7
ACIP	Advisory committee on immunization practices	8
NHIS	National Health Insurance Scheme	8
NIP	National Immunisation Program	9
NPHCDA	National Primary Health Care Development Agency	9