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**PREVALENCE OF PERICONCEPTION FOLIC ACID THERAPY USE AND  
ASSOCIATED FACTORS AMONG WOMEN ATTENDING ANTENATAL  
CARE AT MBALE REGIONAL REFERRAL HOSPITAL**

**BY  
MUDONDO CALORINE  
BU/UP/2017/1560**

**A Research Report submitted to the Department of Nursing Faculty of Health  
Sciences in partial fulfillment of the requirement for the award of degree in  
Bachelors of Science in Nursing of Busitema University.**

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## ABSTRACT

**Background:** Folic acid supplementation in the periconception period prevents folic acid sensitive congenital anomalies. In Uganda, most women do not receive the recommended dose of folic acid in the periconception period. This study aimed at determining the prevalence and the factors associated with periconception use of folic acid among pregnant women at Mbale Regional Referral Hospital.

**Methods:** We used a cross sectional study design among pregnant women attending antenatal clinic at Mbale Regional Referral Hospital. A total of 464 women participated. We used consecutive sampling technique to select study participants using an interviewer administered questionnaire to capture information on prevalence of periconception folic acid therapy use and its associated factors. The prevalence of periconception folic acid therapy use was measured by counting the number of folic acid tablets consumed on average in a week/ month in the periconception period, women who took 4 or more tablets in a week were considered to have adhered to folic acid therapy. Data collected was coded and imported into STATA version 13 for analysis where bivariable and multivariable logistic regression was applied to determine the factors associated to periconception folic acid therapy use. Factors with a  $p$  value  $< 0.05$  at bivariable analysis and plausible factors were included in the multivariate analysis. The strength of association was measured using odds ratio, and 95% confidence interval.

**Results:** The prevalence of preconception folic acid therapy use was 2/464 (0.4%) while the prevalence of folic acid therapy use during the first trimester was 56/464 (12.1%). At multivariable analysis women who had heard about folic acid were more likely to adhere to the recommended dose of periconception folic acid (aOR: 28.5, 95% CI: 5.1-157.9,  $p < 0.001$ ) than women who had not heard about folic acid use. Women who attended their antenatal care first visit at  $\leq 12$  weeks of gestation were more likely to adhere to periconception folic acid therapy (aOR: 0.05, 95%CI: 0.001-0.1,  $p < 0.001$ ).

**Conclusion:** The prevalence of periconception folic acid therapy use was very low. There was poor utilization of folic acid in the periconception period. This could have been because women lacked knowledge about the appropriate time to start folic acid supplementations and the duration of intake. Therefore, awareness campaigns are recommended to emphasize on counseling women about the timing and benefits of folic acid therapy use in the periconception period.

**Key words:** periconception period, folic acid therapy, women

## DECLARATION

I, Mudondo Calorine declare that this report is my own original work and has not been submitted to any academic institution or company for any purpose.

Signature..........

Date: 14th January, 2022

MUDONDO CALORINE

## APPROVAL

This work has been supervised and approved by my supervisors.



Signature

14<sup>th</sup> January 2022

Date

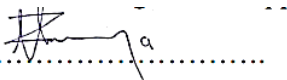
Ms. MBWALI IMMACULATE

RCN, BSN, Msc. Nursing (Midwifery and Women's Health)

Department of Nursing, Faculty of Health Sciences, Busitema University

Dr. DAVID MUKUNYA

Department of Community and Public Health Busitema University Faculty of Health Sciences

Signature...

Date.: 14<sup>th</sup> January,2022

## **DEDICATION**

I dedicate this work to my parents you made me what I am today. To my husband, classmates and friends not forgetting Ajilong Maureen and Nantale Rita, thank you for being the person you are.

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First and foremost, I would like to thank GOD the Almighty for giving me wisdom, strength and courage to carry out this research study and for having enabled me complete the course successfully.

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## TABLE OF CONTENTS

DECLARATION .....	iii
APPROVAL .....	iv
DEDICATION .....	v
ACKNOWLEDGEMENT .....	vi
TABLE OF CONTENTS.....	vii
LIST OF FIGURES .....	x
LIST OF TABLES .....	viii
ABBREVIATIONS AND ACRONYMS .....	ix
DEFINITIONS OF KEY TERMS .....	x
Operational Definition .....	x

### CHAPTER ONE: INTRODUCTION

1.1 Background.....	1
1.2. Problem statement.....	3
1.3. Justification of the study .....	3
1.4. General objective .....	3
1.5. Specific objectives .....	4
1.6. Research questions.....	4
1.7 Conceptual framework.....	5
1.7.1 Conceptual narrative .....	6

### CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction.....	7
2.1 Prevalence of Periconception folic acid therapy use .....	7
2.2 Factors associated with use of folic acid.....	8
2.2.1 Socio-demographic Characteristics .....	8
2.2.2 Obstetric factors .....	9
2.2.3 Health system related factors .....	11
2.2.4 Community related factors.....	12

## **CHAPTER THREE: MATERIALS AND METHODS**

3.0 Introduction.....	14
3.1 Research design .....	14
3.2 Study Area .....	14
3.3 Study population .....	15
3.4 Eligibility criteria .....	15
3.4.1 Inclusion criteria .....	15
3.4.2 Exclusion criteria .....	15
3.5 Sampling technique.....	15
3.6 Sample size estimation.....	15
3.7 Study variables.....	16
3.7.1 Dependent variable .....	16
3.7.2 Independent variables .....	16
3.8 Data collection procedures.....	16
3.8.1 Primary data sources .....	17
3.8.2 COVID 19 Screening risk mitigation plan.....	17
3.9 Data management.....	17
3.9.1 Data quality control.....	17
3.9.2 Data entry and analysis .....	18
3.9.3 Data presentation .....	18
3.10 Data management.....	18
3.11 Ethical consideration.....	18

## **CHAPTER FOUR: PRESENTATION OF RESULTS**

4.0 Introduction.....	19
4.1: Socio-demographic characteristics of the participants .....	19
4.2: Obstetric and health related characteristics of the participants.....	20
4.3: Community related characteristics of the participants.....	21
4.4: Prevalence of preconception folic acid therapy use.....	22
4.5: Bivariable analysis .....	23
4.5.1: Association of socio demographic characteristics and folic acid therapy use .....	23
4.5.2: Association of obstetric, community and health system related factors and folic acid. ....	24



4.6: Multivariable analysis..... 25

**CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATION**

5.1: DISCUSSION..... 27

5.1.1: Prevalence of periconception folic acid therapy use ..... 27

5.1.2: Factors associated with periconception folic acid therapy use ..... 27

5.2: Study Strength..... 28

5.3: Study Limitations..... 28

5.4: Conclusion: ..... 29

5.5: Recommendations..... 29

REFERENCES ..... 30

**APPENDICES**

APPENDIX I: CONSENT FORM ..... 36

APPENDIX II: QUESTIONNAIRE..... 38

APPENDIX III: IRB APPROVAL LETTER..... 45

## LIST OF FIGURES

<i>Figure 1 Conceptual framework showing factors associated with periconception folic acid therapy use...</i>	5
Figure 2 Periconception folic acid therapy use .....	23
Figure 2 folic acid therapy use during the first trimester .....	23

## LIST OF TABLES

Table 1 socio-demographic characteristics of study participants .....	20
Table 2 obstetric and health related characteristics of the participants .....	21
Table 3 Community related characteristics of the participants.....	22
Table 4 Association of socio-demographic characteristics and folic acid therapy use.....	24
Table 5 association of obstetric, community and health system related factors and folic acid ....	25
Table 6 Multivariable analysis of significant variables at bivariable level .....	26

## **ABBREVIATIONS AND ACRONYMS**

**ANC:** Antenatal Care

**CHEWs:** Community Health Extension Workers

**DHS:** Demographic Health Survey

**FA:** Folic Acid

**HCWs:** Health Care Workers

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**MOH:** Ministry of Health

**MRRH:** Mbale Regional Referral Hospital

**NTDs:** Neural Tube Defects.

**WHO:** World Health Organization.

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## DEFINITIONS OF KEY TERMS

**Preconception Period:** This means three months before conception, possibly because this is the average time to conception for fertile couples (Stephenson, 2018).

**Periconception period:** This is the period of 1 month prior to and 3 months post-conception(Wegner *et al.*, 2020a).

**Periconception folic acid use:** this refers to women who start taking folic acid before their last menstrual period before conception and stop at the end of the first trimester(Wegner *et al.*, 2020b)

**Folic acid therapy:** This is a micronutrient supplemental therapy taken to maintain physiological functions, growth and development of the life of the mother and the fetus before, during and after pregnancy (Woday *et al.*, 2021).

**Congenital Anomalies:** Also known as birth defects can be defined as structural or functional abnormalities, including metabolic disorders, which are present from birth(WHO Fact sheet, 2019)

**Folic acid sensitive congenital anomalies:** These are birth defects that are caused by folic acid deficiency leading to severe birth defects of the brain and spinal cord known as neural tube defects. Examples include spina bifida, anencephaly, anencephalocele, cleft lip/palate, heart defects, limb reductions, oro facial clefts (Oumer *et al.*, 2021; Stephenson, 2018).

**Neural Tube Defects:** These are birth defects that originate from a failure in the development of the embryonic nervous system at very early stages of gestation. With anencephaly, spina bifida and encephalocele being the most frequent phenotypes of NTDs (Hala, 2019)

**Parity:** Number of pregnancies in which the fetus or fetuses has reached 28 weeks of gestation. Parity is not affected by whether the fetus is born alive or is stillbirth (is when a fetus shows no signs of life at birth)(Lowdermilk *et al.*, 2016).

**Gravidity:** This means pregnancy (Lowdermilk *et al.*, 2016).

### Operational Definition

**Periconception Folic Acid Therapy:** This is the daily intake of 400mcg of folate from 1 month before to 3 months after conception