SJ Obstetrics and Gynecology Africa
Vol. 1 No. 1 (2024): February 2024 Issue
https://doi.org/10.51168/1qkrhd07
Original Article

KNOWLEDGE, ATTITUDE AND PRACTICES TOWARDS THE USE OF FOLIC ACID AMONG PREGNANT WOMEN AGED 18-45 YEARS AT KITEBI HEALTH CENTRE III,KAMPALA DISTRICT. A CROSS SECTIONAL STUDY.

Viola Nassejje, Amiri Were*
Kampala school of health sciences, P.O. Box 14263, Kampala, Uganda.

ABSTRACT

The purpose of the study

Was to assess the knowledge, attitude and practices toward the use of folic acid among pregnant women aged 18-45 years at Kitebi health center III, Kampala district.

Methodology

A cross sectional study design, with simple Radom sampling as the sample technique. Data was collected on sample size of 50 respondents using semi-structured questionnaires written in English language with open-ended questions as data collection tools, analysis was done manually using tally sheets, pen and paper, entered in excel computer program presented in tables and figure then interpreted.

Results

(78%) had ever heard of folic acid, (60%) knew green leafy vegetables contained folic acid, (70%) knew anemia as a defect that arises from deficiency of folic acid. (66%) ofthe respondents would advise a fellow pregnant woman to take folic acid, (50%) agreed that folicacid supplements prevent anemia. (34%) of the respondents continued taking folic acid supplements after delivery, (80%) had ever taken folic acid before, (60%) took folic acid regularly and at the right time

Conclusion

Despite the fact that knowledge, attitude and practices towards the use of folic acid among pregnant women aged 18-45 years were fairy notedworth but the study established a research gap in regarding awareness of folic acid, defects that arise from deficiency of folic acid and the fact that a handful of respondents were taking green leafy vegetables on a daily basis which needed to be addressed for equitable prevention of NTDs

Recommendation

Health workers at Kitebi health center III should continue sensitizing pregnant women about the importance of regular ATN care visits and educating them about the general uses of folic acid as to close the research gaps.

Keywords; *Knowledge, Attitude, Practices, Folic Acid, Pregnant Women Kitebi Health Center III*
Submitted: 2024-01-01 Accepted; 2024-01-05

*Corresponding author: Viola Nassejje**
Email: navikatende@gmail.com
Kampala school of health sciences, P.O. Box 14263, Kampala, Uganda.

INTRODUCTION

Background of study

Pregnancy constitutes a major life event for all women that cause physiological and psychological changes. Pregnancy is a process and series of changes that take place in a woman's organs and issues because of a developing fetus.

Most women progress through pregnancy without complications, requiring little specialized medical or nursing intervention yet prenatal care is essential for the health and well-being of boththe pregnant woman and the developing fetus.

Folic acid also known as folate, folacin or vitamin B9 is an essential nutrient which is vital for several functions of the body as it protects cells of the body. To synthesize DNA, it is repairing, replication and methylation, the human body needs folic acid. Human body cannot synthesize folic acid on its own so it is got outside the body through diet by supplementation or fortification.Folate is a water -soluble vitamin and found in large amount in leafy green vegetables and citrus fruits. Folic acid is obligatory in pregnancy because it is vital for both the mother and the fetus. (Sobia Jamil et al, 2017).

Many studies have shown associations between NTDs and inadequate maternal intake of folic acid before or during

pregnancy and that folic acid supplementation could reduce neural tube defects

It has been reported that more than 300,000 cases of NTDs occur worldwide each year and manyare in low income countries. while the incidence of neural tube defects, is falling in the United States of America (USA) and western Europe, these congenital abnormalities remain a significant health problem in Africa.

Uganda is a resource limited country that lacks recent accurate data on the prevalence of birth defects and a national birth defects registry.) Folic acid supplementation is essential for prevention of birth defects hence the need for this study. The study was aimed at finding out the knowledge, attitude and practices towards the use of folic acid among pregnant women aged 18- 45 year at kitebi health Centre III, Kampala district in order to suggest measures to minimize the cases resulting from deficiency of folic acid

METHODOLOGY

Study design

A cross sectional descriptive research design in nature was used in this study.

Study area

Kitebi health Centre III is located in Lubaga division, Kampala, Central Uganda situated nearby to Muteesa II stadium. The hospital comprises of the following sectors which include antenatal, pharmacy, outpatient, and wards like maternity. The health center provides services to patients from the surrounding villages like Mutundwe, Nyanama, Bunamwaya ,Seguku, kabowa, wankulunkuku, Ssembule, Ndeeba, Nateete, Kabuusu and Nalukolongo. The study was carried out from May to November 2023.

Sample size determination

Where, N= desired sample size

a= standard normal deviation usually set at 1.96 which corresponds to 95% confidence level

b= proportion of survey population with particulars under investigation and where itsunknown, 50% is used

c= probability of getting a certain amount of error. 50% is consideredto cater for that

x= degree of accuracy which ranges from 0.01-0.1 Therefore, it's; (1.96^2) *0.5*0.5/ (0.09^2)

=118.57

~119 respondents

The target population was therefore, 119 respondents but due to financial and time constraints, 50 respondents were to be used.

Study population

The study targeted a population of pregnant women aged 18-45 years and that were present during the period of data collection in the selected area of study.

Inclusion criteria

The inclusion group was composed of pregnant women aged 18-45 years in Kitebi health center III present during the period of data collection willing to consent to take part in carrying out the study.

Exclusion criteria

The exclusion criteria were composed of all women who are below 18 years, those above 45 years, also those who are 18-45 years old but are not pregnant.

Sampling technique

A simple random sampling technique was used to select respondents from the source population.This technique was preferred because it ensures freedom from human bias and each member of the target population had an equal and independent chance of being included.

Sampling procedure

The antenatal register was used to sample out pregnant women who had reported first.

Data collection method

A semi structured questionnaire was designed and used to collect data from respondents. The questionnaire was designed according to the specific objectives of the studywith open and close ended questions, written, in English language and later translated into local language (Luganda) for respondents who were not able to comprehend English language. The questionnaire was preferred because it suited to collect data from a larger sample considering the nature of the study population.

Data collection tool

A pretested questionnaire was used as the data collection tool

Data collection procedure

After approval of the research proposal, an introductory

letter was obtained from Kampala school of health sciences, followed by presenting the letter to the director of Kitebi health Centre III seeking permission to carry out the study. When the permission was granted, the study was explained to the participants and data collection began with signing of a consent form among the pregnant women aged 18-45 year at the Antenatal area. Data collection process was done in a way that alphabet letters written on papers were given to the respondents to pick those who pick "A" were interviewed first after consenting and the process continued until the required sample size was attained. The respondent was asked questions following the designed questionnaire to avoid being biased. After the interview, each respondent was thanked for participating in the study

Study variables

Dependent variables

The dependent Variables in the study was use of folic acid.

Independent variables

Independent variables were knowledge attitude and practices towards the use of folic acid amongpregnant women aged 18-45 years.

Quality control

Following the inclusion and exclusion criteria, suitable respondents were selected.

All the activities regarding data collection were done under the monitoring and supervision of the research assistants.

The research team gathered after data collection, reviewed the collected data, and crosschecked the filled questionnaire.

Therefore, quality control was done to ensure accuracy and validity of the data collected.

Pretesting of questionnaire

For uniformity of the data collection, pretesting of the questionnaire was done among 15 pregnant women aged 18- 45 years in Bunamwaya in order to ensure questions were easily understood by all the respondents and the pretested instruments helped to identify questions which might cause ambiguity and contradiction.

Data analysis and presentation

Data was analyzed manually using tally sheets and entered into the computer using Microsoft excel computer program to generate tablets, pie charts and bar graphs for easy presentation of findings.

Ethical considerations

Ethical considerations in the conduct of research were followed to prevent ethical dilemmas. To ensure ethical conduct of the study, a letter of introduction was obtained from Kampala school of health sciences and addressed to the medical director of Kitebi health Centre III, Kampala district; requesting for permission to the study. When permission was granted, consent was obtained from each participant and respondents were assured of utmost confidentiality. The respondents were assured of anonymity and ability to withdraw from the study anytime. No names were written to the questionnaire. The questionnaire was kept separate from consents forms to avoid association of the two.

STUDY FINDINGS

Bio Data

Table 1: shows distribution of respondents according to demographic data (N=50)

Response	Frequency(f)	Percentage (%)
Age		
18-23yrs	7	14
24-29yrs	26	52
30-39yrs	14	28
40-45yrs	3	6
Total	**50**	**100**
Gestation age		
1-3mths	17	34
4-6mths	23	46
7-9mths	10	20
Total	**50**	**100**
Education level		
Never went to school	5	10
Primary	14	28
Secondary	21	42
University/tertiary institution	10	20
Total	**50**	**100**

Table 2: shows distribution of respondents according to demographic dat

Response	Frequency (f)	Percentage (%)
Marital status		
Single	7	14
Married	29	58
Separated	14	28
Total	**50**	**100**
Religion		
Protestant	11	22
Muslim	12	24
Catholic	23	46
Others	4	8
Total	**50**	**100**
Tribe		
Muganda	33	66
Munyankole	10	20
Musoga	4	8
Other	3	6
Total	**50**	**100**
Occupation		
Unemployed	28	56
Employed	12	24
Self employed	10	20
Total	**50**	**100**

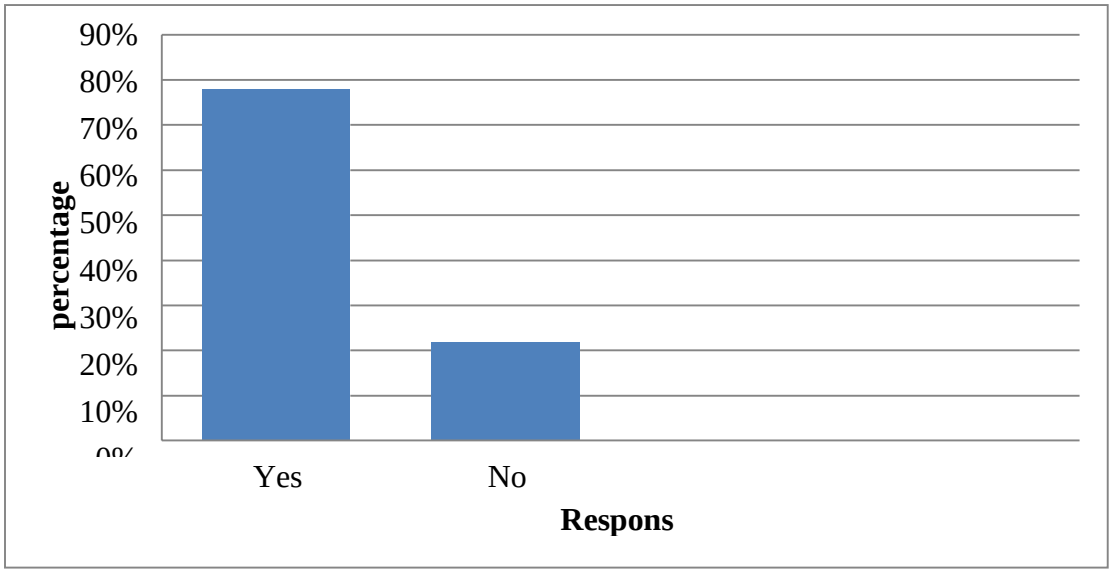
Findings from 50 respondents revealed that majority of the respondents (52%) were in the agebracket of 24-29yrs. Whereas the minority (6%) were in the age bracket of 40-45 yrs. The study further revealed that most (46%) were at the gestation age of 4-6 months, whereas theleast (20%) were at the gestation age of 7-9 months. The study revealed that most of the respondents (42%) had attained a secondary level ofeducation whereas the least (10%) had not attained any level of education. (Table 1).

According to table 2, (58%) were married whereas the minority (6%)were widows.

As regards to the study, most of the respondents (52%) were Catholics whereas the least (8%)were from other religions. The study revealed that most of the respondents (66%) were Baganda as of tribe while the least(3%) were from other tribes. Findings obtained from 50 respondents revealed that most of the respondents (56%) wereunemployed whereas the least (20%) were self-employed.

Knowledge towards the Use of Folic Acid among Pregnant Women Aged 18-45yrs

Figure 1: S**hows the distribution of respondents according to whether they had ever heardof folic acid (N=50)**



From the figure 1, most of the respondents (78%) had ever heard of folic acid while the least(22%) had never had of folic acid.

SJ Obstetrics and Gynecology Africa
Vol. 1 No. 1 (2024): February 2024 Issue
https://doi.org/10.51168/1qkrhd07
Original Article

Figure 2: Shows the distribution of respondents towards the foods that contain folic acid (N=50)

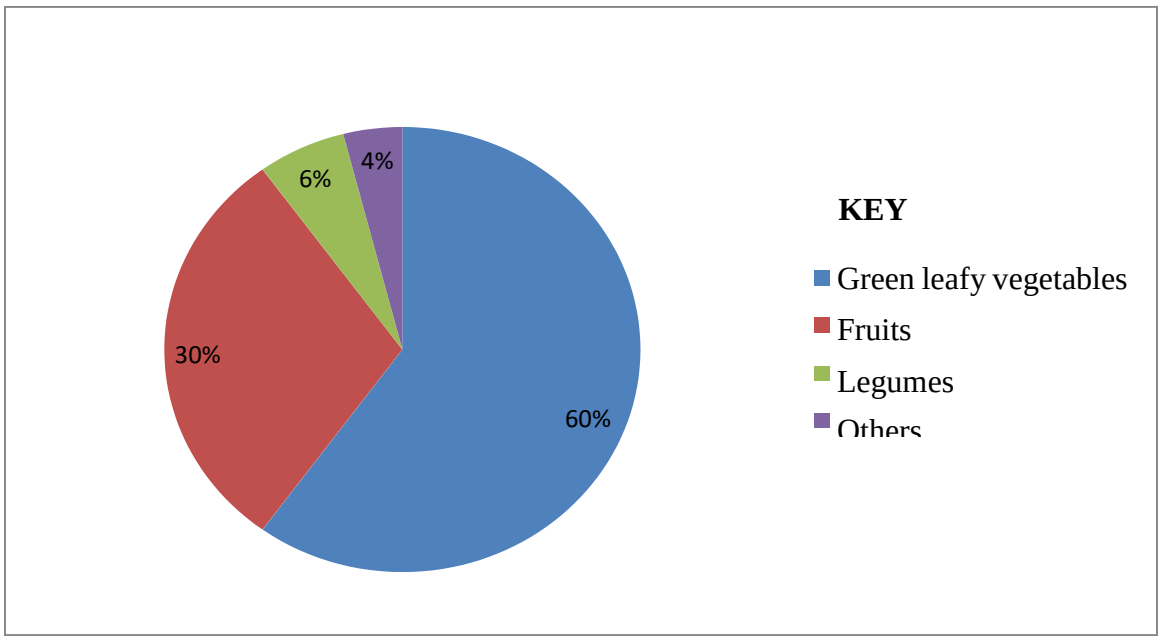


Figure 2 shows that more than half of the respondents (60%) knew that green leafyvegetables contained folic acid while the least (4%) knew other foods that contain folic acid.

Table 3: Shows the distribution of respondents according to their knowledge about importance of folic acid. (N=50)

Response	**Frequency** (f)	**Percentage (%)**
Yes	31	62
No	4	8
Uncertain	15	30
Total	50	100

From the table 3, most of the respondents (62%) knew the importance of folic acid while theleast (4%) did not know the importance of folic acid.

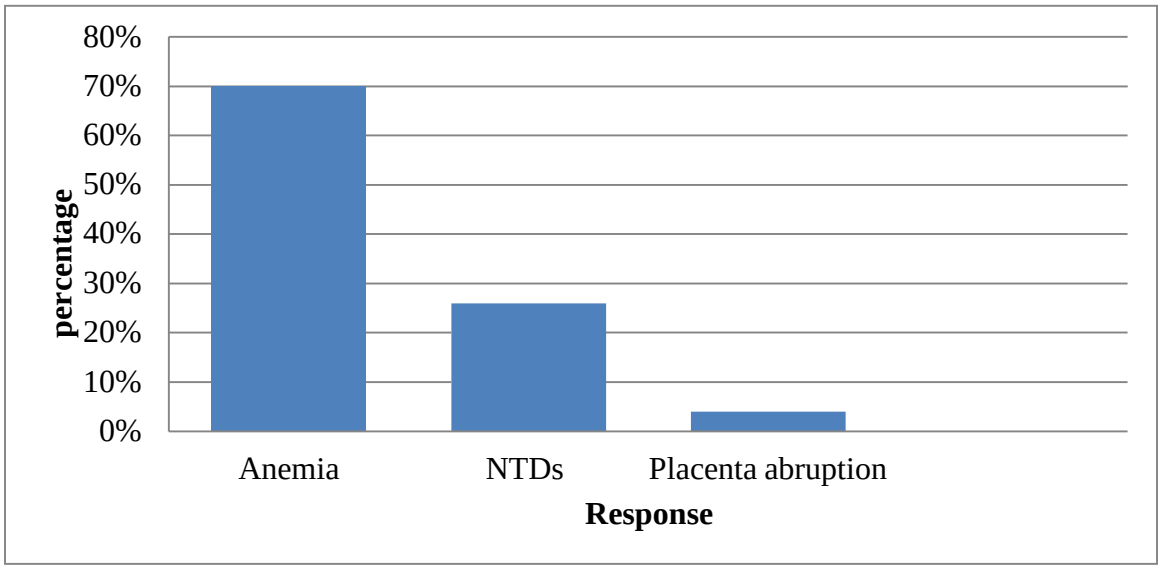
SJ Obstetrics and Gynecology Africa
Vol. 1 No. 1 (2024): February 2024 Issue
https://doi.org/10.51168/1qkrhd07
Original Article

Table 4: Shows the distribution of respondents according to knowledge about what time ofpregnancy is one expected to start taking folic acid. (N=50)

Time	Frequency (f)	Percentage (%)
Before pregnancy	10	20
1st trimester	33	66
2nd trimester	7	14
Total	**50**	**100**

Table 4; shows that the majority of the respondents (66%) knew that one was supposed to start taking folic acid during the 1st trimester of pregnancy whereas the least (14%) knew that onewas supposed to start taking folic acid during the 2nd trimester

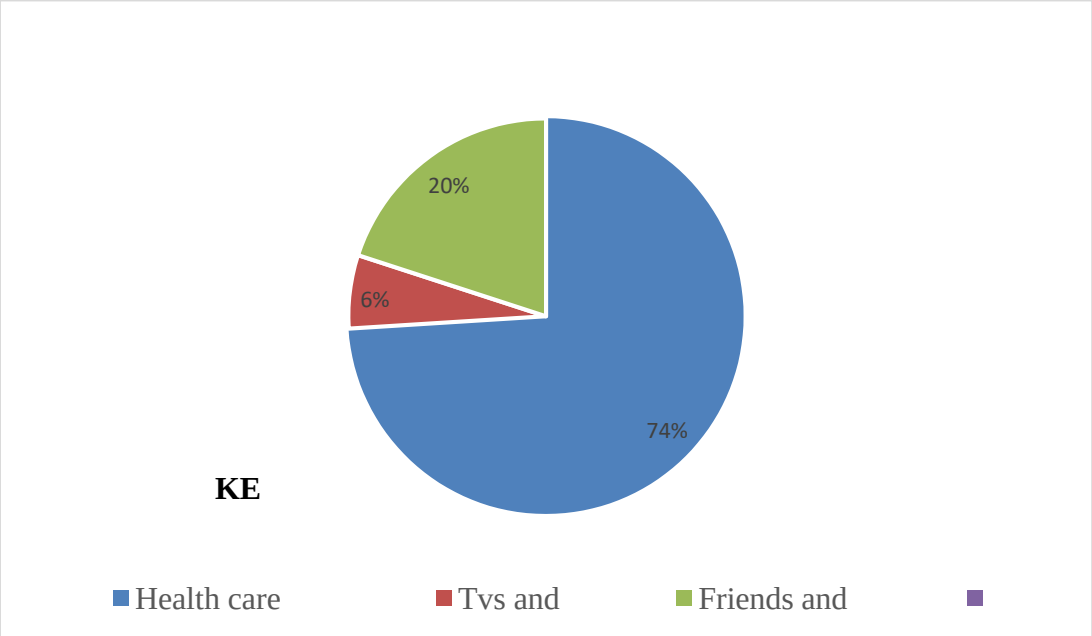
Figure 3: Shows the distribution of respondents basing on their knowledge about defectsthat arise from deficiency of folic acid (N=50)



From the figure 3, most of the respondents (70%) knew anemia as a defect from deficiency of folic acid whereas the least (4%) knew placenta abruption

SJ Obstetrics and Gynecology Africa
Vol. 1 No. 1 (2024): February 2024 Issue
https://doi.org/10.51168/1qkrhd07
Original Article

Figure 4: Shows the distribution of respondents according to the main source of information about folic acid (N=50)



From the figure 4, most of the respondents (74%) obtained information about folic acidfrom health care providers whereas the least (6%) obtained information from TVs and radios

Attitude towards the Use of Folic Acid among Pregnant Women Aged 18-45yrs

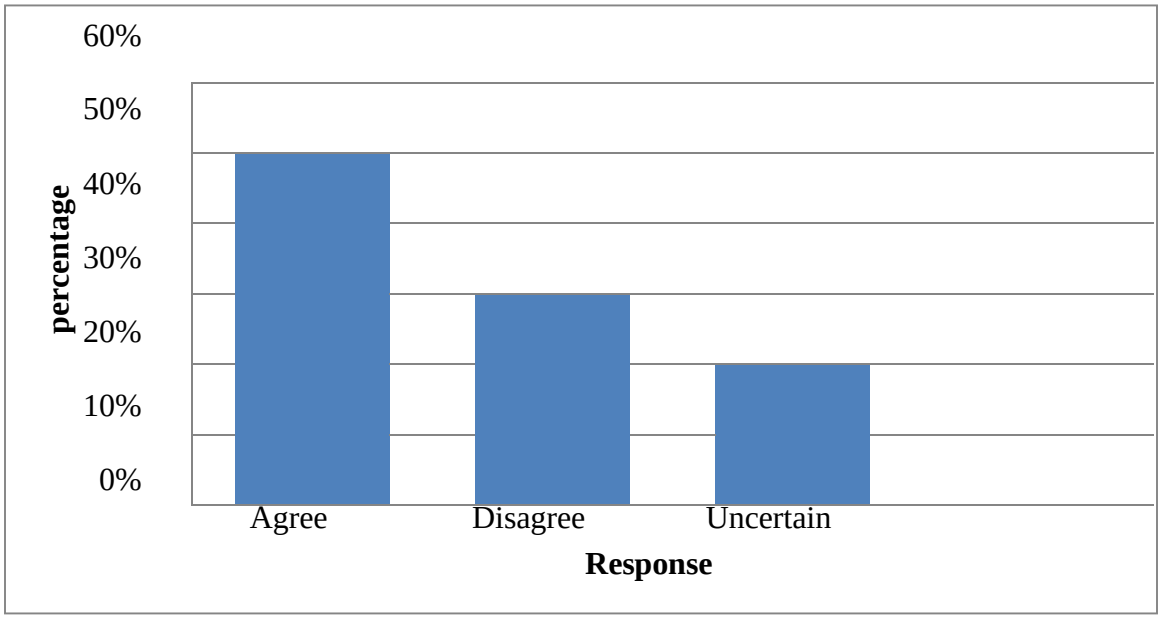
Table 5: Shows distribution of respondents according to whether they would advise pregnant women to take folic acid (N=50)

Response	**Frequency**(f)	**Percentage** (%)
Yes	34	68
No	16	32
Total	**50**	**100**

From table 5, the majority of the respondents (68%) would advise pregnant women to takefolic acid whereas the minority (32%) would not.

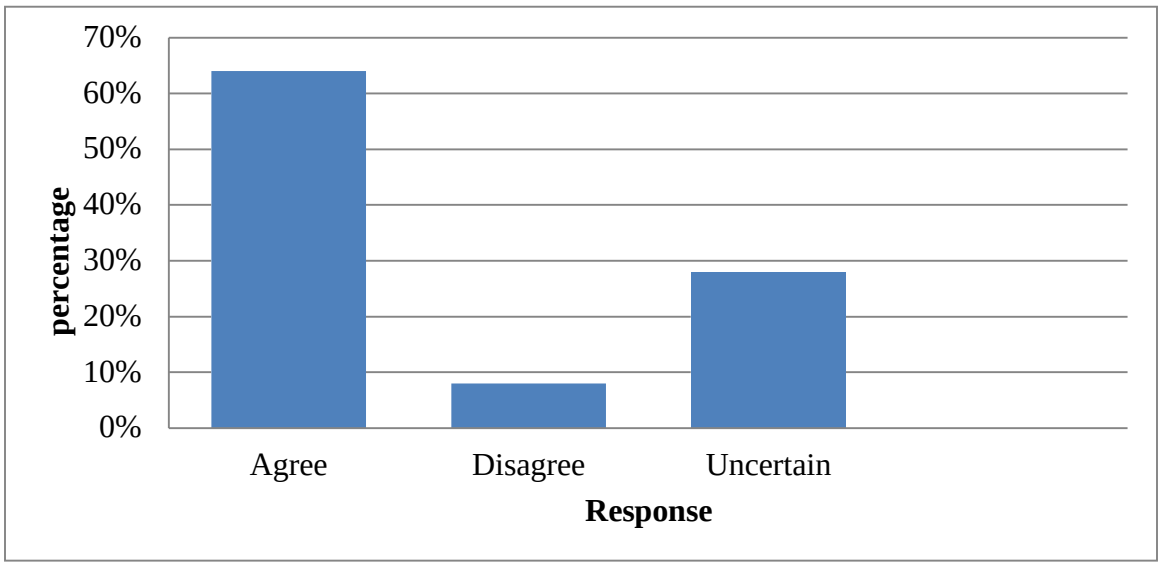
SJ Obstetrics and Gynecology Africa
Vol. 1 No. 1 (2024): February 2024 Issue
https://doi.org/10.51168/1qkrhd07
Original Article

Figure 5: Shows distribution of respondents according to whether folic acid preventsanemia supplements (N=50)



From the figure 5, half of the respondents (50%) agreed that folic acid supplements preventanemia whereas the least (20%) were uncertain

Figure 6: Shows the distribution of respondents according to whether folic acid should be taken without doctor's instruction (N=50)



From the figure 6, more than half of the respondents (64%) agreed that folic acid can betaken without doctors' instruction whereas the least (8%) disagreed.

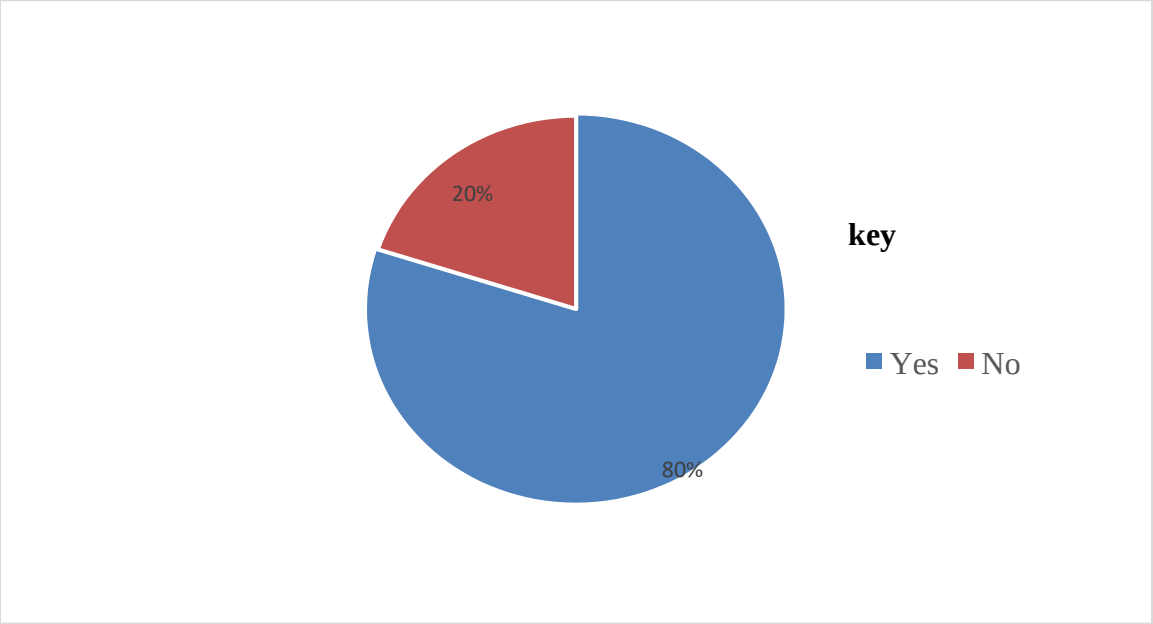
SJ Obstetrics and Gynecology Africa
Vol. 1 No. 1 (2024): February 2024 Issue
https://doi.org/10.51168/1qkrhd07
Original Article

Table 6: S**hows the distribution of respondents according to whether food rich in folic acid are enough to prevent congenital abnormalities without the need for folic acid complementary tablets (N=50)**

Response	Frequency (f)	Percentage (%)
Agree	27	54
Disagree	10	20
Uncertain	13	26
Total	50	100

From the table 6, most of the respondents (54%) agreed that foods rich in folic acid are enough to prevent congenital abnormalities without the need for folic acid complementary tabletswhereas the least (10%) disagreed.

Practices towards the Use of Folic Acid among Pregnant Women Aged 18-45yrs
Figure 7: Shows the distribution of respondents according to whether they had taken folicacid before. (N=50)



From the figure 7, most of the respondents (80%) had ever taken folic acid before whereasthe least (20%) had never taken folic acid before

Figure 8: Shows the distribution of respondent according to whether they continued taking folic acid supplements after delivery (N=50)

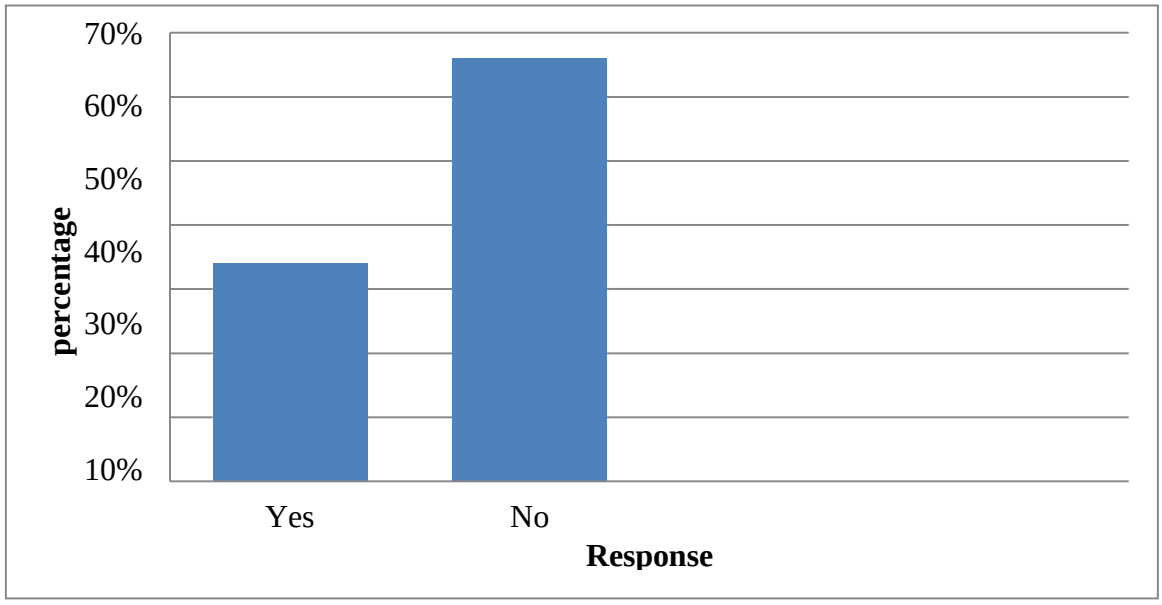


Figure 8 shows that most of the respondents (66%) did not continue taking folic acid supplements after delivery whereas the least (34%) continued taking folic acid supplements after delivery.

Table 7: Shows the distribution of respondents according to how often they take folic acid (N=50)

Response	Frequency (f)	Percentage
Regularly	30	60
Irregularly	20	40
Total	50	100

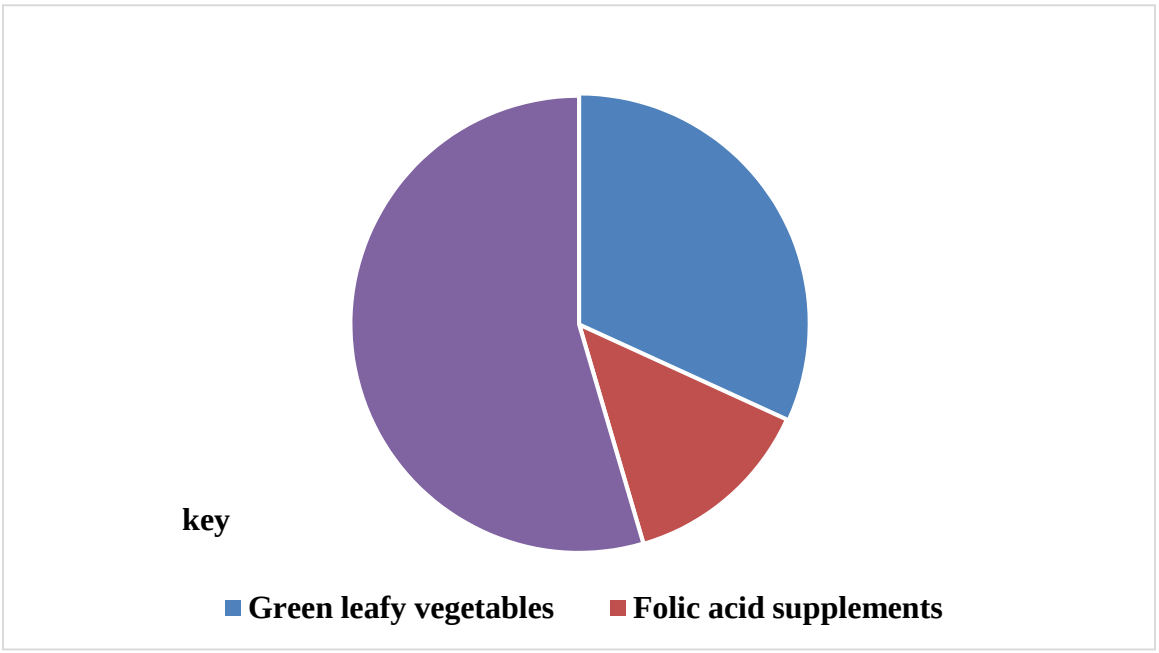
From Table 7, most of the respondents (60%) regularly take folic acid whereas the least (40%) irregularly take folic acid

Table 8: Shows the distribution of respondents according to when they started taking folicacid supplement (N=50)

Response	Frequency	Percentage
Before pregnancy	10	20
During 1st trimester	33	66
During 2nd trimester	7	14
Total	50	100

From Table 8, most of the respondents (66%) reported that they started taking folic acid supplements during the first trimester whereas the least (7%) started taking folic acid during the 2nd trimester.

Figure 9: Shows the distribution of respondents according to the source of folic acid theymostly take to obtain folic acid (N=50)



From Figure 9, most of the respondents (70%) take green leafy vegetables take greenleafy vegetables to obtain folic acid whereas the least (30%) take folic acid supplements.

Discussion

Knowledge towards the use of folic acid among pregnant women aged 18-45 yrs.

Findings obtained from 50 respondents showed that more than half of the respondents (78%) had ever had folic acid. This specifies that an outstanding number of study participants were responsive about the study background.

Additionally, most of the respondents (60%) knew green leafy vegetables contained folic acid. This could be a result of the fact that during ANC visits women were oriented about the foods rich in folic acid. The study results were consistent with Sobia et al (2017) where results showed that 40% of the women knew folate occurs naturally in green leafy vegetables.

The study further revealed that (70%) knew anemia as a defect that arises from a deficiency of folic acid, therefore this showed that respondents were aware of the defects that arise from a deficiency of folic acid. Study results were not in line with Mohammed et al (2022) where 80% indicated that folic acid deficiency has a relationship with NTDs.

Given the study findings, the majority of the respondents (74%) obtained information about folic acid from the hospital this is attributed to that in hospitals; health workers provide detailedinformation about different nutrients, and the probability of being the most considerable source was expected. This result was in line with Lubna (2017) where health care providers were the main source of information regarding folic acid.

The study further revealed that (62%) knew the importance of folic acid. This signifies a direct relationship between women's source of information and general awareness about the study content. The study results were not in line with Nourhan et al (2022) where 75% of the women did not know the benefits of folic acid during pregnancy.

In regards to when to start taking folic acid, (66%) knew one was supposed to start taking folic acid during the 1st trimester. This could be attributed to the fact that women had never had information about when to start taking folic acid from different sources. The results were not in line with Nourhan et al (2022) where 79% of women did not have answers about the correct time to use folic acid during pregnancy.

Attitude towards the use of folic acid among pregnant women aged 18-45 yrs.

The study discovered that most of the respondents (66%) agreed they would advise fellow pregnant women to take folic acid such perception divulges that a significant number of study participants had a favorable attitude towards the use of folic acid this is in agreement with Lubna (2017) where findings showed that 76% of the women responded affirmatively to the question if they would advise other pregnant women to take folic acid.

The majority of the respondents (54%) agreed that foods rich in folic acid are enough to prevent congenital abnormalities without the need for folic acid complementary tablets. This could be attributed to the fact that some of the respondents did not perceive taking folic acid supplements to be of great importance to their pregnancy period the study results were not in line with Sadiqet al (2022) where results showed that only 18.8 % of the respondents agreed that food rich in folic acid is enough to prevent congenital abnormalities without the need for folic acid complementary tablets.

Half of the respondents (50%) agreed that folic acid prevents anemia this indicates that a substantial number of participants were afraid of being at risk of getting anemia the study results were in line with Nourhan et al (2022) where results showed that 53.3% of the respondents agreed that folic acid supplementation can prevent anemia during pregnancy.

The study revealed that most of the respondents (64%) agreed that folic acid can be taken without a doctor's instruction this is because women have different sources of information about folic acid. This study's results were in line with Sadiq et al (2022) where results showed that 76.6% agreed it's possible to take folic acid without a doctor's instruction. Practices towards the use of folic acid among pregnant women aged 18-45 yrs.

From the study findings, (70%) of the respondents took green leafy vegetables to obtain folic acid. this signifies good practice towards the intake of folic acid the study results were in line with Mohammed et al (2022) where 47.8% stated they consumed green leafy vegetables.

The study revealed that (34%) of the respondents continued taking folic acid after delivery. Thisis so because mothers are always encouraged to take folic acid supplements after delivery to restore the blood that was lost during delivery and at the time when one was pregnant. The study results were in line with Cecilia et al (2022) where results reported that 15.2% of the women received supplements during delivery and a few weeks after delivery.

Results showed that (20%) started taking folic acid before pregnancy. This is so because some ofthe respondents knew the benefits of folic acid. the study results were in line with Dangyang et al (2019) where results showed that 42% of the respondents started takingfolic acid before pregnancy

Furthermore, results showed that (60%) took folic acid regularly and at the right time. this is attributed to the benefits of folic acid to both the mother and fetus and also to the fewer side effects experienced after taking folic acid complementary tablets. the study results were not in line with Danyung et al (2019) where only 37.9% of respondents took folic acid regularly at the right time

Most of the respondents (80%) had ever taken folic acid before. This is so because most of the respondents were multigravida, and the study results were not in line with (Rehana, 2013) where results showed that 45.6% took folic acid supplements for the first time during pregnancy.

Conclusion

Even though knowledge, attitude, and practices towards the use of folic acid among pregnant women aged 18-45 years were fairly notedworth but the study established a research gap regarding awareness of folic acid, defects that arise from deficiency of folic acid, and the fact that a handful of respondents were taking green leafy vegetables daily which needed to be addressed for equitable prevention of NTDs.

Recommendations

Health workers at Kitebi Health Center III should also continue to educate pregnant mothers on the benefits of taking folic acid supplements through community reaches to implement better behavior of change and this will eliminate the noted challenges womenface and unpleasant attitudes.

Health workers at Kitebi Health Center III should continue sensitizing pregnant women about the importance of regular ATN care visits and educating them about the general uses of folic acid to close the research gaps.

ACKNOWLEDGEMENT

I would like to thank the almighty lord who gave me strength and direction. Without you, my life would have no meaning

I am grateful to my supervisor Mr. Were Amir for his time and professional supervision accorded to me during the research report

Furthermore, I express my heartfelt gratitude to my parents for all the encouragement, sacrifices, guidance, and support as well.

Much appreciation to my friends Katende Ronald, Katongole Mariam, Lunkuse Primrose, and all members of my discussion as well as my other classmates who have done all they could in many aspects of living at Kampala School of Health Sciences. I will live to remember all of you for making life as lively as possible.

LIST OF ABBREVIATIONS

ANC: Antenatal care

DNA: Deoxyribonucleic Acid

FA: Folic Acid

IFS: Iron Folate Supplementation

MOH: Ministry of Health

NTDS: Neural Tube Defects

TV: Television

WHO: World Health Organization

Source of funding
No source of funding.

Conflict of interest
No conflict of interest.

REFERENCES
Cecilia N Mshanga, E. J. (2022). Knowledge, attitude, and practices towards the use of Iron and folic acid supplements among pregnant and lactating women in Dar er Salaam. *Tanzanianjournal of science, 48*(3).

Abdulmalek, Lubna. (2017). Knowledge, attitude, and practice regarding folic acid among pregnant women in Benghazi, Libya. Ibnosina Journal of Medicine and Biomedical Sciences. 9. 67. 10.4103/1947-489X.210113.

Danyung Li, L. H. (2019). know Knowledge, attitude and practice level of women at thepericonceptional period; a cross-sectional study in Shaanxi China. 326.

Mohamed N Al Arifi, A. M.-B.-A. (2022). *nutrients, 14*(2), 357.

Mahmoud, Nourhan & Moneim, Entesar & El-Sayed, Hanan & Said, Doaa. (2022). Knowledge and attitudes of pregnant women regarding folic acid supplementation. International journal of health sciences. 5431-5445. 10.53730/ijhs.v6nS8.13472.

Sobia Jamil, S. K. (2017). Knowledge, attitude, and practices of folic acid consumption inpregnant women. 74-81.

Zahraa Sadiq, H. K. (2022). Assessment of knowledge and attitude among pregnant women toward folic acid intake during pregnancy in a sample of women attending primary healthcare centers in Babylon province. *Medical Journal of Babylon, 19*(2), 142-151.

Lassi ZS, Salam RA, Haider BA, Bhutta ZA. Folic acid supplementation during pregnancy for maternal health and pregnancy outcomes. Cochrane Database Syst Rev. 2013 Mar 28;2013(3): CD006896. doi: 10.1002/14651858.CD006896.pub2. PMID: 23543547; PMCID: PMC10069458.

Publisher details:

SJC PUBLISHERS COMPANY LIMITED

Category: Non-Government & Non-profit Organisation
Contact: +256775434261(WhatsApp)
Email: admin@sjpublisher.org, info@sjpublisher.org or studentsjournal2020@gmail.com
Website: https://sjpublisher.org
Location: Wisdom Centre Annex, P.O. BOX. 113407 Wakiso, Uganda, East Africa.

SJ Obstetrics and Gynecology Africa
Vol. 1 No. 1 (2024): February 2024 Issue
https://doi.org/10.51168/1qkrhd07
Original Article