

Modern Contraceptive Utilization and Associated Factors among Women of Reproductive Age at Fort Portal Regional Referral Hospital, Uganda.

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ABSTRACT

Couples can enjoy sexual activity at whatever time they choose without worrying about the possibility of becoming pregnant thanks to modern contraceptive technologies. The current study's objective was to determine the extent of modern contraception use and its contributing factors among women of reproductive-age attending Fort Portal Regional Referral Hospital. We used a dataset of 420 respondents that was gathered between March and April of 2022. To quantify statistical association and summarize descriptive data, respectively, logistic regression models and descriptive studies were utilized. The statistical significance of the association was evaluated using the adjusted odds ratio and the confidence interval, respectively. Finally, a confidence interval was used to determine statistical significance. Overall, 86% of reproductive-age women visiting Fort Portal Regional Referral Hospital used modern contraceptives overall in the research (20.4%). The implant/Norplant method, used by 102 people, and injectable contraceptives, used by 247 people (58.9%), were the two most popular modern contraceptive methods (24.3%). Multivariable logistic regression analysis revealed that among reproductive-age women at Fort Portal Regional Referral Hospital, age, residence, woman's occupation, number of living children, husband's education, age at first sexual encounter, husband's desire for additional children, wealth index, and TV watching were all independently associated with the use of modern contraception. Unexpectedly little contemporary contraception use was found among women visiting Fort Portal Regional Referral Hospital of reproductive age in the current investigation. Age, place of residence, region, woman's occupation, number of living children, husband's educational attainment, age of first sexual encounter, husband's desire for additional children, wealth index, and television viewing were independent predictors of modern contraceptive use among reproductive-age women visiting Fort Portal Regional Referral Hospital. These elements should be taken into account in any intervention approach that encourages the use of current contraceptive methods for greater success.

Keywords: contraceptive, utilization, associated factors, women, reproductive age

INTRODUCTION

Rapid population increase in the world is concerning and requires mitigation. High population restraint resources which are scarce making planning and allocation difficult and has become a cause for decline in national economies. While high population may increase human labor, it also poses dangers of increase in crimes as well as increases in the number of street children hence the need to curb human population growth for better economic management [1]. Globally, it is estimated that 40% of all pregnancies among women are unintended [2-5]. Unintended pregnancies are pregnancies that are either unwanted (no desire for additional child by woman or couple) or mistimed (if it occurs earlier than desired) [6]. Millions of deaths and injuries results from unintended

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pregnancy-related complications and/or unsafe abortions. An Unsafe abortion is any procedure to terminate unwanted pregnancy performed by unskilled person or in non-ideal environment or both [7]. Furthermore, unintended pregnancies result to millions of neonatal deaths [8]. Unmet contraceptive needs best describe special category of woman with no desire of pregnancy but are not using any method of contraceptive to avoid pregnancy [9].

Family planning enables people to control their desired number of children, if any, and to determine the proper spacing of their pregnancies [10-14]. This is achieved through use of contraceptive methods [7]. Modern contraceptives have been shown to control fertility thereby justifying its promotion even in developing to slow population growth [15]. The examples of modern contraceptives include: "oral contraceptive pills, implants, injectables, contraceptive patch and vaginal ring, intrauterine device (IUD), female and male condoms, female and male sterilization, vaginal barrier methods (including the diaphragm, cervical cap and spermicidal agents), lactational amenorrhea method (LAM), emergency contraception pills, standard days method (SDM), basal body temperature (BBT) method, TwoDay method and sympto-thermal method" [7]. Promotion of modern contraceptives has been identified to be an intervention to improve both the maternal and child health outcome [16]. Modern contraceptives reduces maternal mortality (44%) by preventing unplanned pregnancies, teenage pregnancy, unsafe abortions, high-risk pregnancies and allows for spacing of pregnancies [17, 16, 7]. The role of condoms in preventing sexually transmitted infections including HIV/AIDS has been lauded for long [15]. According to WHO estimates of 2017, 214 million women of reproductive age in the developing countries have unmet need for contraception [7]. Supporting and promoting contraceptive services at all levels is among the Sustainable Development Goals set for 2030 [18].

The need for modern contraceptives has increased in most countries [19] but in Africa the acceptor rate remains low and unmet need for family planning stands persistently high despite the plethora of evidence of benefits [17,15]. The estimated 5-year increase in utilization of modern contraceptives in Africa was about 5% (23.9% of 2012 to the 28.5% in 2017) [20]. It is estimated that only about 55% of the need for family planning is being met with modern methods in Sub-Saharan Africa. [18]. Overall, the most preferred contraceptive method was injectable (32%), then oral pill (27%) and implants (16%) [15]. WHO cites the following reasons for the unmet need of family planning: limited access to contraception, limited choice of methods, fear or experience of side-effects, cultural or religious opposition, poor quality of available services and gender-based barriers [7].

Uganda has committed to reduce the population growth rate from 3.2% to 2.4% by 2040 [21]. Uganda's fertility is estimated at 5.4 children per woman and higher in rural areas than urban and with 25% of adolescents (15-19) having begun child-bearing [22]. 40% of pregnancies in Uganda were reported to not have been planned especially among the adolescent (adolescent fertility rate (15-19) of 111/1000) which contributes to higher rates of avoidable pregnancy-related complications and unsafe abortions [22, 23]. Abortion related complications were the 4th cause of maternal mortality (7%) in 2020 [22].

Methodology

Study Type/Design

The study design used a hospital-based cross-sectional descriptive assessment of patients [24] attending Fort Portal Regional Referral Hospital between March and April 2022.

Study Area/Setting

This study was conducted at Fort Portal Regional Referral Hospital (Buhinga) in Kabarole District.

Study Population

Target Population

The target population comprised of all women of reproductive age as defined by world health organisation, who will attend Fort Portal Regional Referral Hospital during the study period and consents. The study population constituted of all between the age of 15 and 49 years. This age group was chosen because they constitute those qualified for modern contraceptives by various schedules.

Eligibility Criteria

Inclusion criteria

The study included all women of reproductive age (15-49 Years) who were attending Fort Portal Regional Referral Hospital

Exclusion criteria

All children, adolescent females below the age of 15 years or elderly women above the age of 45 years or anyone unwilling to participate, deaf or dumb, mentally ill or the very ill were excluded from this study.

Sampling

Sample Size Determination

Using the Kish and Leslie sample size formula given below, [25] assuming prevalence of 37% of modern contraceptive utilization [23].

$$n = \frac{Z^2 P (1 - p)}{d^2}$$

Where: n = The required sample size; Z = The confidence level at 95% (standard value of 1.96); d = Precision given as 5% (± 0.05); P = as the prevalence of modern contraceptives use in the region.

$$n = \frac{1.96^2 \times 0.37 (1 - 0.37)}{0.05^2} = 358.16$$

Therefore, $n = 358.16$

In order to compensate for incompleteness and errors, a sample size of 420 women of reproductive age will be used applying a 10% increment was used.

Sampling Technique

Because of the large sample size, all women of reproductive age (15-49 year-olds) who fit the criteria and consents were selected. Every woman of reproductive age 15-49 years attending Fort Portal Regional Hospital had an equal chance of being selected [26].

Data collection methods and tools

In this study, quantitative data was collected using questionnaire-based interviews. A standardized interview that contained both close ended (structured) and open ended (semi-structured) questions on socio-demographical, personal and health-system related factors regarding modern contraceptive utilization (refer to appendix II) will be used. The questionnaire was pre-tested in another similar setting that to check for applicability, accuracy and consistency of that data that will be collected before commencement of study. Using both close and open-ended questions, new issues that would not otherwise will not be captured using structured questions will be collected in a semi-structured interview. A 5-point Likert scale will be used to evaluate respondent's responses on knowledge towards modern contraceptive utilization. This scale will have 5 scores representing a particular response. This scale has been proven useful for evaluating respondent's responses on knowledge [27, 28].

Data Collection Procedure

After establishing rapport and getting permission from the respondent to interview, they consented for participation in the study. The completeness of the questionnaire was ensured before leaving the respective respondents by the researcher.

Data Analysis and Presentations

The researcher edited and coded the information obtained from the questionnaire. Data was handled using Microsoft Excel 2021 and SPSS, version 26.0. After entering the data into the Microsoft Excel 2021 and Epi Info -Mobile and Computer Apps, it was transferred to SPSS 26.0 for analysis. Both descriptive and inferential statistic techniques was employed to analyse the coded data. Finally, the data is presented in percentage, tables and graphs. Bivariate and Multivariate logistical regression analysis was used to test association between the variables and level of significance of the factors.

Ethical Consideration

In order to make sure that the study is ethically sound, the researcher fulfilled the following Issues:

Institutional Consent

Ethical approval for the study was obtained from the research and ethics committee of Kampala International University. Written consent was obtained from the District Health Officer of Fort Portal District/Fort Portal City Municipality Health Board and the Executive Director of Fort Portal Regional Referral Hospital before data collection.

Informed Consent

To get signed letter of informed consent of the respondent, the researcher and research assistants introduced themselves to the participants and the study was explained to the participants on the procedure. The purpose of the study was explained to the respondents, they will also be informed about the criteria of being selected to participate in the study, procedures to be followed and any risks and benefits which might be involved during the study. They were also be informed about the duration of the study, and they were assured of confidentiality. The participants were also be informed that their participation will be voluntary and they were free to terminate their participation at their own will at any point in time without any penalty and they will be guided to whom to contact in case of any emergency. The respondents were made to understand and consent by appending a signature on the consent form.

RESULTS

The study included a total of 420 women of reproductive-age women attending Fort Portal Regional Referral Hospital. A total of 420 questionnaires were distributed, returned, and analyzed, yielding a response rate of 100%. The respondents' average age was 27.94 (± 9.16) years, ranging from 18 to 34. 94 (22.3 percent) of the 420 respondents who were interviewed fell into the 15-19 age range. As shown in Table 3 and Figure 1, of the total number of reproductive-age women interviewed, 18.51 percent (78) and 18.14 percent (76) were identified in the age ranges of 25-29 and 30-34 years, respectively.

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Of the women of reproductive age at FRRH studied, 51.3 percent of the participants didn't have a job, according to their occupation. According to respondents' places of residence, 65.9% of women lived in rural areas. In terms of education, 44.8 percent of people lacked a degree, while 46.1 percent of women were married to illiterate men. Women of reproductive age who had their first sexual encounter and had their first child under the age of 18 did so in proportions of 63.5 percent and 39.9 percent, respectively. In terms of their family's financial standing, 36.3% of the ladies were from wealthy families whereas 70.6 percent of reproductive-age women decided on the use of contraception with their spouses as shown in Table 1 and Figure 2.

Table 1: Socio-demographic and socio-economic characteristics of reproductive age women at Fort Portal Regional Referral Hospital

Characteristics	Frequency		Modern contraceptive utilization			
	n=420	%Age	Yes	%Age	No	%Age
Residence						
Urban	143	34.1	34	23.5	110	76.5
Rural	277	65.9	52	18.8	225	81.2
Current marital status						
Never Married	115	27.3	3	2.78	111	97.2
Married/Living Together	263	62.6	77	29.3	186	70.7
Married But Not Together	42	10.1	5	12.5	37	87.5
Educational level						
No Education	188	44.8	35	18.83	153	81.16
Primary	139	33.2	31	22.04	109	77.96
Secondary	60	14.3	11	19.12	49	80.88
Higher	32	7.6	8	25.1	24	74.9
Husband's education						
Not Educated	194	46.1	39	20	155	80
Primary	131	31.1	48	36.7	83	63.3
Secondary	53	12.5	20	38.3	32	61.7
Higher	44	10.4	17	38.3	27	61.7
Knowledge of contraceptives						
No knowledge	104	24.8	9	8.4	95	91.6
Least knowledge	55	13.1	12	21.1	43	78.9
Average knowledge	54	12.8	13	24.7	40	75.3
Satisfactory knowledge	55	13	14	26.3	40	73.7
Knowledgeable	152	36.3	38	24.8	115	75.2

Figure 1: Clustered area column graph showing age stratification of age women attending FRRH.

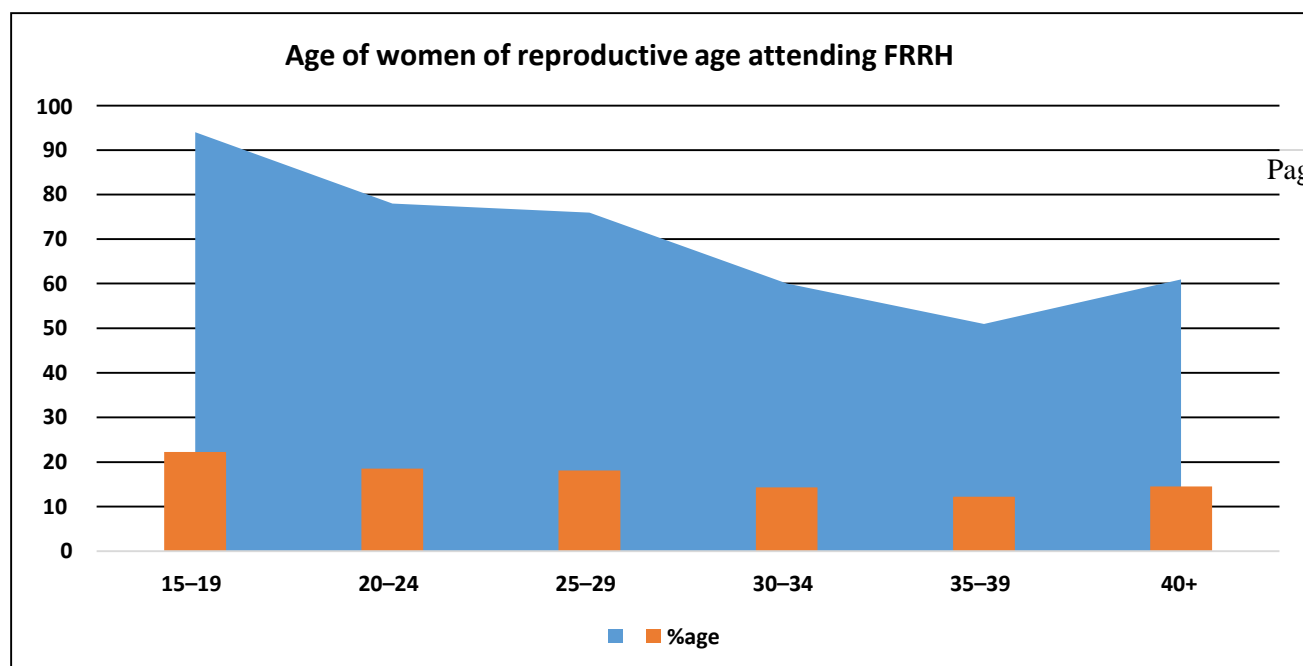
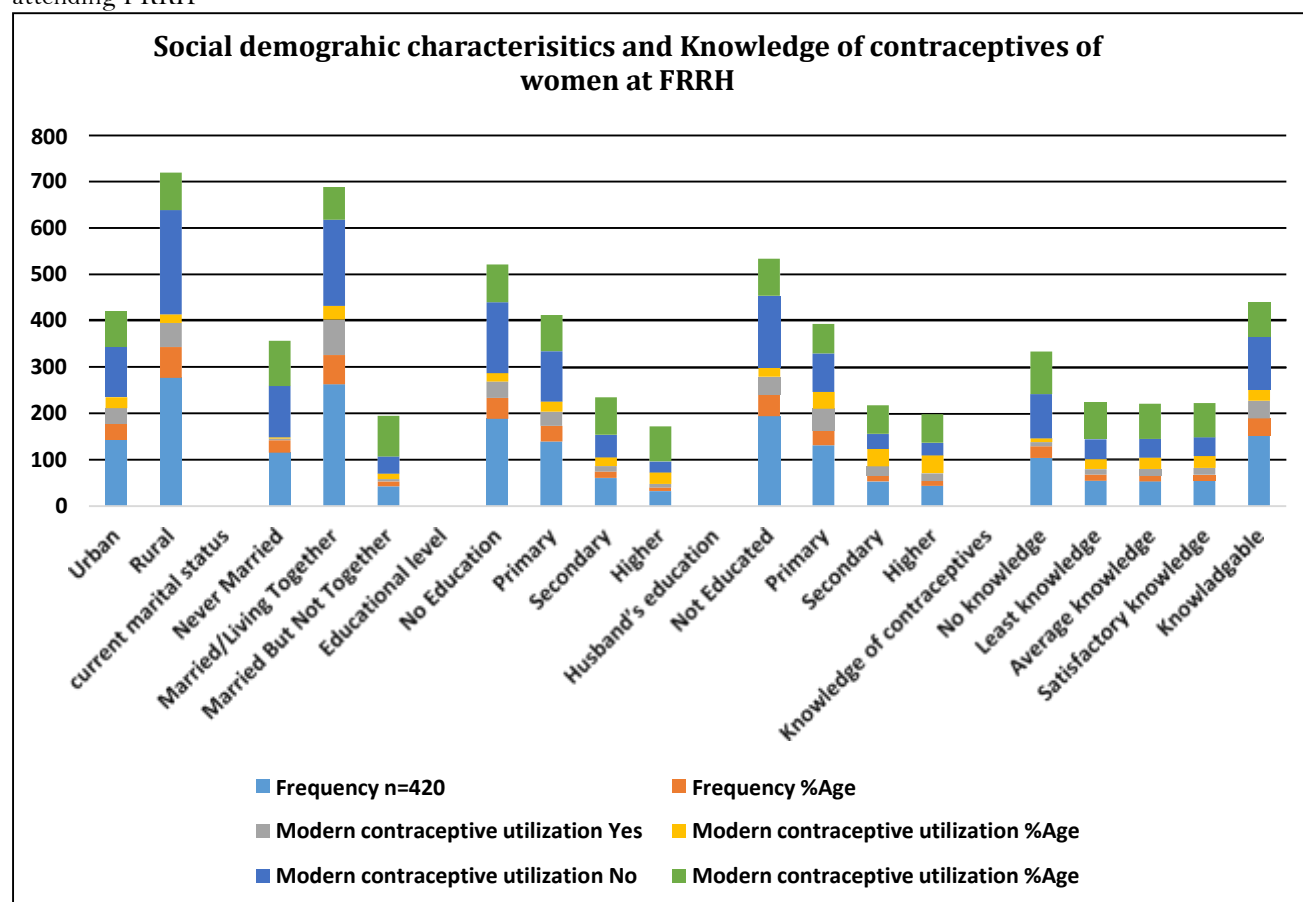
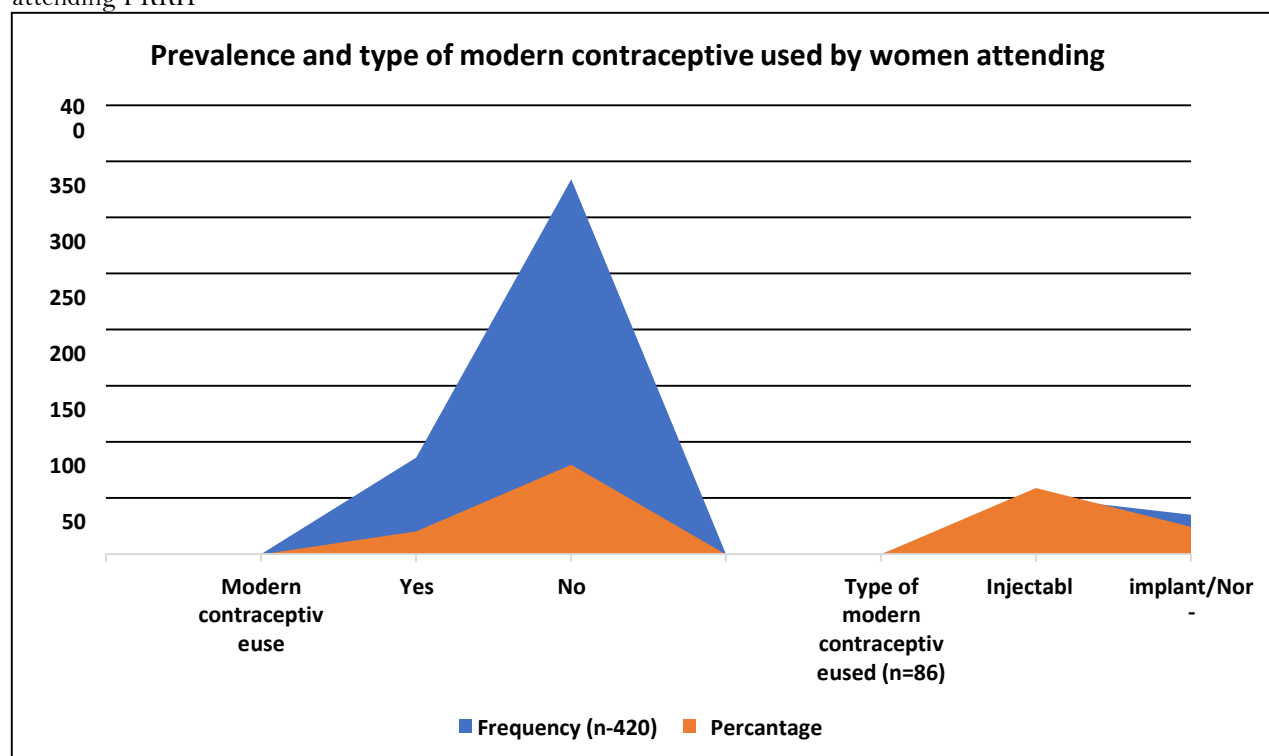


Figure 2: Stacked column graph showing social demographic characteristics of reproductive age women attending FRRH



Overall, only 86 of the studied women used modern contraceptives (20.42%). The injectable method was the most often used modern contraceptive method, with 51 (58.88 %), followed by implant/Nor-plant, 35. (24.32 %) as shown in Figure 3. Only 5.91 percent of reproductive age women between the ages of 15 and 19 (6%) used contemporary contraceptive techniques; in contrast, 28.64 and 28.56 percent of reproductive age women between the ages of 25 and 29 (7%) and 30-34 (8.3) did so. There was also a discrepancy in the use of modern contraceptives among reproductive-age women living in rural and urban areas; just 34 (18.8%) rural inhabitants used them, compared to 52 (23.5%) urban residents. According to marital status, contemporary contraceptive use also differed greatly. As shown in Table 3, just 3 (2.78 percent) of reproductive-age women who were not married used modern contraceptive methods, while 77 (29.3 percent) of those who were married and cohabiting did so.

Figure 3: Area graph showing prevalence and type of modern contraceptive among reproductive age women attending FRRH



Regarding the first sexual encounter and the first childbirth, 267 (63.5%) and 216 (51.5%) people, respectively, had their first sexual encounter and gave birth to their first child between the ages of 18 and 24. Among women of reproductive age, 145 (34.5%) and 161 (38.4%) did not give birth to a child and did not have a live birth, respectively. 351 (83.6%), 277 (65.9%), and 270 (64.3%) did not watch television, listen to the radio, or read the newspaper, respectively. 297 (70.6 %) of women who chose to use contraception did so in consultation with their husbands as shown in Table 2.

Table 2: Individual and behavioural related characteristics of reproductive age women at FRRH

Characteristics	Categories	Frequency		Modern contraceptive utilization			
		n	%Age	Yes	%Age	No	%Age
Age at first sex	Less 18 years	267	63.5	70	26.2	197	73.8
	18–24	139	33.1	39	28.4	100	71.6
	25 and above	14	3.4	3	18.8	12	81.2
Age at first childbirth	Less 18 years	168	39.9	43	25.5	125	74.5
	18–24	216	51.5	63	29.3	153	70.7
	25 and above	36	8.6	10	26.5	27	73.5
Total children ever born	No child	145	34.5	10	6.91	135	93.09
	1–2	99	23.5	34	34.42	65	65.58
	3–4	72	17.1	21	29.26	51	70.74
	5 and above	105	25.0	21	19.88	84	80.12
Number of living children	No child	161	38.4	11	7.04	150	92.96
	1–2	116	27.6	39	34.02	76	65.98
	3–4	85	20.2	23	27.54	61	72.46
	5 and above	58	13.8	13	22.01	45	77.10
Frequency of reading newspaper or magazine	Not at all	351	83.6	71	20.08	281	79.92
	Less than once a week	50	12.0	11	22.75	39	77.25
	At least once a week	18	4.4	4	20.55	15	79.45
Frequency of listening to the radio	Not at all	277	65.9	51	18.46	226	81.54
	Less than once a week	71	16.9	17	23.56	54	76.44
	At least once a week	72	17.1	18	24.88	56	78.12
Frequency of watching TV	Not at all	270	64.3	49	18.05	221	81.95
	Less than once a week	47	11.3	12	24.94	36	75.06
	At least once a week	102	24.4	25	24.59	77	75.41
Decision make on contraceptive use	Mainly respondent	102	24.4	100	97.1	3	2.9
	Mainly husband, partner	21	5.0	21	100	0	0
	Joint decision	297	70.6	287	96.7	10	3.3

Table 3: Bivariate analysis of the association between modern contraceptive utilization and associated factors at Fort Portal Regional Referral Hospital

Characteristics	Category	Frequency		Modern contraceptive utilization		COR	(95%CI)	P
		n	(%)	Yes	No			
Age of respondent	15–19	94	22.3	6	88	.308	(.258,.369)	.000*
	20–24	78	18.5	18	59	1.517	(1.321,1.744)	.000*
	25–29	76	18.1	22	54	1.969	(1.718,2.256)	.000*
	30–34	60	14.3	17	43	1.960	(1.700,2.261)	.000*
	35–39	51	12.2	13	39	1.588	(1.366,1.847)	.000*
	40+	61	14.5	10	51	1		
Residence	Urban	143	34.1	34	110	1.325	(1.223,1.435)	.000*
	rural	277	65.9	52	225	1		
current marital status	never married	115	27.3	3	111	1		
	married/living together	263	62.6	77	186	.200	(.158,.253)	.000*
	married but not together	42	10.1	5	37	2.905	(2.488,3.393)	.000*
Respondent educational level	No education	188	44.8	35	153	1		
	Primary	139	33.2	31	109	.693	(.600,.799)	.000*
	Secondary	60	14.3	11	49	.843	(.729,.976)	.022*
	Higher	32	7.6	8	24	.705	(.597,.834)	.000*
Respondent's Occupation	Agricultural -	71	16.8	17	54	1.011	(.791,1.293)	.928
	Services	14	3.4	3	11	.971	(.760,1.240)	.811
	Skilled manual	16	3.8	5	11	.832	(.611,1.134)	.244
	Unskilled manual	8	1.8	1	6	1.263	(.946,1.686)	.113*
	Others	11	2.6	3	8	.759	(.523,1.102)	.147*
Total children ever born	No child	145	34.5	10	135	.299	(.263,.341)	.000*
	1–2	99	23.5	34	65	2.115	(1.906,2.347)	.000*
	3–4	72	17.1	21	51	1.667	(1.486,1.869)	.000*
	5 and above	105	25.0	21	84	1		
Number of living children	No child	161	38.4	11	150	.268	(.232,.311)	
	1–2	116	27.6	39	76	1.827	(1.613,2.070)	.000*
	3–4	85	20.2	23	61	1.347	(1.179,1.539)	.000*
	5 and above	58	13.8	13	45	1		.000*
Husband's education	not educated	194	46.1	39	155	1		
	primary	131	31.1	48	83	.404	(.349,.467)	.000*
	secondary	53	12.5	20	33	.937	(.809,1.084)	.381
	higher	44	10.4	17	27	1.004	(.847,1.191)	.961
Age at first sex	less 18 years	267	63.5	70	197	1.535	(1.192,1.978)	.000*
	18–24	139	33.1	39	100	1.716	(1.326,2.219)	.000*
	25 and above	14	3.4	3	11	1		

Table 3: Bivariate analysis of the association between modern contraceptive utilization and associated factors (Continued)

Characteristics	Category	Frequency		Modern contraceptive utilization		COR	(95%CI)	P
		n	(%)	Yes	No			
Age at first sex	less 18 years	267	63.5	70	197	1.535	(1.192,1.978)	.000*
	18–24	139	33.1	39	100	1.716	(1.326,2.219)	.000*
	25 and above	14	3.4	3	11	1		
Age at first childbirth	less 18 years	168	39.9	43	125	.948	(.804,1.118)	.527
	18–24	216	51.5	63	153	1.148	(.978,1.348)	.091*
	25 and above	36	8.6	10	26	1		
Husband's desire for children	Both want the same	167	39.8	59	108	1		.000*
	Husband wants more	113	27.0	26	87	1.612	(1.444,1.800)	.456
	Husband wants fewer	27	6.5	10	17	.898	(.792,1.019)	.000*
	Don't know	113	26.8	28	85	1.645	(1.367,1.980)	
Wealth index	Poorest	104	24.8	9	95	1		
	Poorer	55	13.1	12	43	.278	(.245,.316)	.000*
	Middle	54	12.8	13	41	.813	(.719,.918)	.001*
	Richer	55	13.0	14	41	.995	(.884,)	.928
	Richest	152	36.3	38	114	1.086	(.968,1.219)	.161*
The decision makes on contraceptive use	Mainly respondent	102	24.4	100	2	1.155	(.704,1.896)	.568
	Mainly husband, partner	21	5.0	21	0	1.686	(.525,5.421)	.380
	Joint decision	297	70.6	287	10	1		
Frequency of reading newspaper or magazine	Not at all	351	83.6	71	280	1		
	Less than once a week	50	12.0	11	39	.972	(.805,1.174)	.766
	At least once a week	18	4.4	4	14	1.139	(.920,1.410)	.231
Frequency of listening to the radio	Not at all	277	65.9	51	226	1		
	Less than once a week	71	16.9	17	54	.683	(.618,.756)	.000*
	At least once a week	72	17.1	18	54	.931	(.821,1.055)	.261
Frequency of watching TV	Not at all	270	64.3	49	221	1		
	Less than once a week		11.3	12	36	.675	(.618,.739)	.000*
	At least once a week		24.4	25	77	1.019	(.895,1.161)	.72

To find independent determinants of modern contraceptive method use among reproductive-age women visiting FRRH, a multivariable logistic regression model was built. As a result, the use of modern contraceptive methods was independently correlated with age, site of residence, occupation, number of living children, husband's education, age at first sex, desire for children, wealth index, and frequency of television watching as explained below as presented in Table 4.

Woman whose age was between 15 and 19, 20–24, 25–29, 30–34 and 35–39 were early 1.9 [AOR = 1.911(1.301,2.806)], 2.4 [AOR = 2.389(1.853,3.081)], 2.2 [2.196(1.782,2.706)], and 1.9 [AOR = 1.938(1.589,2.363)] [AOR = 1.938(1.589,2.363)] [AOR = 1.938 (1.589,2.363)] [AOR = 1.938(1.589,2.363)] [and 1.8 [1.797(1.464,2.207)] times respectively more likely to use a modern form of contraception than women 40 years of age and older. The likelihood that urban resident women would use modern contraception was almost 1.5 [AOR = 1.5129 (1.204, 1.900)] times higher than the likelihood that rural resident women would use modern contraception.

A woman who works in sales, agriculture, skilled manual labor, and other occupations was almost 1.3 [AOR = 1.336(1.136,1.572)] in number., 1.2[1.192(1.022,1.390)], 1.4[AOR = 1.425(1.085,1.872)] and 1.6 times more likely to use a modern contraceptive technique compared to a woman who did not have a job, respectively. [AOR = 1.331(1.039,1.706)].

When compared to a woman who had given birth to 5 or more children, women who had never given birth to a child or had given birth to one or two children were respectively 75% [AOR = .255(.117,.556)] and 34% [AOR = .658(.455,.952)] less likely to use modern contraceptive techniques..

A woman whose husband had completed primary education was nearly 1.4 [AOR = 1.347(1.173, 1.546)] times more likely to utilize modern contraceptive methods as compared to a woman whose husband was not educated. A woman who had started her first sexual intercourse at an age of less than 18 years was nearly 1.6 [AOR = 1.582(1.054,2.373)] times more likely to utilize modern contraceptive methods as compared to a woman who started her first sexual intercourse at an age of 25 or more year respectively.

The odds of modern contraceptive utilization among women whose husbands want more children was nearly 25% [AOR = .749(.653,.860)] times less likely than the odds of modern contraceptive utilization among women who want the same number of children with their husbands. The odds of modern contraceptive utilization among women where neither husbands' nor women's desire for more children is not known was nearly 32% [AOR = .677(.590, .776)] times less likely than the odds of modern contraceptive utilization among women where women and husbands want the same number of children.

A woman who was from the richest, a richer, middle and poorer household was nearly 3.5 [AOR = 3.462(2.672, 4.485)], 3 [AOR = 3.034(2.471, 3.726)], 2.5 [AOR = 2.471(2.021, 3.022)] and 2 [AOR = 1.929(1.580, 2.356)] times more likely to utilize modern contraceptive method as compared to reproductive age woman from poorest household respectively.

A woman who watches television at least once a week and less than once a week was nearly 1.3 [AOR = 1.259(1.036,1.531)] and 1.4 [AOR = 1.368(1.110,1.687)] times more likely to utilize modern contraceptive method as compared to a woman who does not watch a television respectively.

Table 4: Independent predictors of modern contraceptive utilization among reproductive-agewomen at Fort Portal Regional Referral Hospital

Characteristics	Category	Frequency (%)		COR (95%CI)		AOR (95% CI)	
Age of respondent	15–19	94	22.3	.308	(.258,.369)	1.911	(1.301,2.806) *
	20–24	78	18.5	1.517	(1.321,1.744)	2.389	(1.853,3.081) *
	25–29	76	18.1	1.969	(1.718,2.256)	2.196	(1.782,2.706) *
	30–34	60	14.3	1.960	(1.700,2.261)	1.938	(1.589,2.363) *
	35–39	51	12.2	1.588	(1.366,1.847)	1.797	(1.464,2.207) *
	40+	61	14.5	1		1	
Residence	Urban	143	34.1	1.325	(1.223,1.435)	1.512	(1.204,1.900) *
	rural	277	65.9	1		1	
Respondent's Occupation	Not working	215	51.3	1		1	
	Professional	13	3.1	.616	(.487,.779)	1.095	(.745,1.608)
	Sales	67	15.9	1.037	(.705,1.525)	1.336	(1.136,1.572) *
	Agricultural	71	16.8	1.011	(.791,1.293)	1.192	(1.022,1.390) *
	Services	14	3.4	.971	(.760,1.240)	1.229	(.868,1.740)
	Skilled manual	16	3.8	.832	(.611,1.134)	1.425	(1.085,1.872) *
	Unskilled manual	8	1.8	1.263	(.946,1.686)	1.382	(.858,2.227)
	Others	11	2.6	.759	(.523,1.102)	1.570	(1.085,2.271) *
	Total children ever born	No child	145	34.5	.299	(.263,.341)	1.711
	1–2	99	23.5	2.115	(1.906,2.347)	1.331	(1.039,1.706) *
	3–4	72	17.1	1.667	(1.486,1.869)	1.421	(1.123, 2.341) *
	5 and above	105	25.0	1		1	
Number of living children	No child	161	38.4	.268	(.232,.311)	.255	(.117,.556) *
	1–2	116	27.6	1.827	(1.613,2.070)	.658	(.455,.952) *
	3–4	85	20.2	1.347	(1.179,1.539)	.792	(.616,1.018)
	5 and above	58	13.8	1		1	
	Husband's education	Not Educated	194	46.1	1		1
	Primary	131	31.1	.404	(.349,.467)	1.347	(1.173,1.546) *
	Secondary	53	12.5	.937	(.809,1.084)	1.069	(.872,1.309)
	Higher	44	10.4	1.004	(.847,1.191)	.956	(.749,1.221)
Age at first sex	Less 18 year	267	63.5	1.535	(1.192,1.978)	1.582	(1.054,2.373) *
	18–24 year	139	33.1	1.716	(1.326,2.219)	1.428	(.964,2.116)
	25 and above	14	3.4	1		1	
Husband's desire for children	Both want the same	167	39.8	1		1	
	Husband wants more	113	27.0	1.612	(1.444,1.800)	.749	(.653,.860) *
	Husband wants fewer	27	6.5	.898	(.792,1.019)	.949	(.770,1.170)
	Don't know	113	26.8	1.645	(1.367,1.980)	.677	(.590,.776) *
Wealth index	Poorest	104	24.8	1		1	
	Poorer	55	13.1	.278	(.245,.316)	1.929	(1.580,2.356) *
	Middle	54	12.8	.813	(.719,.918)	2.471	(2.021,3.022) *
	Richer	55	13.0	.995	(.884,)	3.034	(2.471,3.726) *
	Richest	152	36.3	1.086	(.968,1.219)	3.462	(2.672,4.485) *
Frequency of	Not at all	270	64.3	1		1	

Less than once a week	47	11.3	.675	(.618,.739)	1.259	(1.036,1.531) *
At least once a week	102	24.4	1.019	(.895,1.161)	1.368	(1.110,1.687) *

DISCUSSION

Overall, 86 out of 420 women of reproductive-age attending FRRH used modern contraceptives regularly accounting for 20.4%. The figure is roughly in line with the secondary data analysis from the 2014 Ghana Demographic and Health Surveys, which showed that the prevalence of using modern contraceptives was 21.53 percent [29].

Furthermore, it was in line with cross-sectional studies conducted in Ghana and Ethiopia in 2016 that found that, respectively, 21 and 20.8 percent of women of reproductive age used contemporary contraceptives [30].

However, the current prevalence is lower than the results of secondary data analysis of the Demographic and Health Surveys conducted in Burkina Faso (24%) and Afghanistan (25.5%) in 2012 and 2015, respectively, and higher than the results of secondary data analysis of the Demographic and Health Surveys conducted in Nigeria (10.3%) and Mali (15.3%) in 2013 and 2012, respectively [31].

A cross-sectional multi-country analysis of Demographic and Health Surveys (DHS) conducted between 2008 and 2016 in 52 LMICs, using 6857 representative samples from Ethiopia, also revealed that the prevalence of modern contraceptive method use among Ethiopian young reproductive-age women aged between 15 and 24 years was 12.1%, which is significantly lower than the finding from the current study [32].

A cross-sectional multi-country analysis of Demographic and Health Surveys (DHS) conducted between 2008 and 2016 in 52 LMICs, using 6857 representative samples from Ethiopia, also revealed that the prevalence of modern contraceptive method use among Ethiopian young reproductive-age women aged between 15 and 24 years was 12.1%, which is significantly lower than the finding from the current study [33].

Age was a reliable predictor of modern contraceptive method use among Ethiopian women of reproductive age in the current study. Women aged 15 to 19 years, 20 to 24 years, 25 to 29 years, 30-34 years, and 35 to 39 years were roughly 1.9, 2.4, 2.2, 1.9, and 1.8 times more likely, respectively, to use modern contraceptive methods than women aged 40 and older. In line with the current study's findings, secondary data analysis of three consecutive Bangladesh Demographic and Health Surveys revealed that women between the ages of 40 and 49 were less likely to use contemporary contraceptives [18].

The current finding was in line with the findings of two cross-sectional studies conducted in Northwest and Western Ethiopia, which found that women of reproductive age who were 35 to 49 years old and over 44 years old, respectively, were less likely to use a modern method of contraception [34]. Age > 30 years was negatively related with the use of modern contraceptive methods, according to a cross-sectional study conducted in Cameroon in 2014 and 2015, which was also consistent with the current study. This may be because reproductive-age women from low-income nations become more financially secure when they are older and may not want to use contraception to have more children [35]. But the current result contrasts with secondary data analysis results from the Demographic and Health Surveys conducted in Afghanistan (2012) and Nigeria (2013), where women above the age of 40 were more likely to use modern contraceptive methods. The disparity may have arisen as a result of the socioeconomic and cultural disparities between the two nations [36].

In the current study, residence was independently correlated with the use of contemporary contraceptives. In comparison to rural residents, reproductive-age women living in cities were about 1.5 times more likely to use modern contraceptives than those living in rural areas. This finding is in line with secondary data analysis of Indian, Afghan, Nigerian, and Bangladeshi Demographic and Health Surveys, which showed that urban resident women were more likely than rural resident women to use contemporary contraceptives. This might be the result of various factors. Urban women are more educated, earn more money, have easier access to medical facilities, and have easier access to the media than rural women, all of which have a positive effect on the use of modern contraceptives [20, 41].

The use of contemporary contraceptives was independently correlated with the occupation in the current study. When compared to reproductive-age women without jobs, reproductive-age women who work in sales, agriculture, skilled manual labor, and other occupations were respectively 1.3, 1.2, 1.4, and 1.6 times more likely to use modern contraceptive methods. The result is in line with the results of secondary data analysis of the Ghana Demographic and Health Surveys conducted between 2003 and 2014 [37].

According to the descriptive study's findings, reproductive age women employed in sales, agriculture, skilled manual labor, and other jobs used modern contraceptives at rates of 24.65, 23.89, 29.01, and 24.44 percent, respectively, whereas just 16.61 percent of those without jobs did so. This may be because working women earn more money, have better access to media and healthcare resources, all of which have a beneficial impact on the use of modern contraceptive methods. Additionally, because they are on duty, they might need to wait a while before having children. Some women may be their families' sole providers, working a lot to keep their families' lives together [38].

The use of contemporary contraceptive methods was independently correlated with the number of children. In comparison to women who had given birth to five or more children, women who had never given birth to a child and those who had one or two children were respectively about 75 and 34% less likely to have used modern contraceptive methods. This finding is consistent with secondary data analysis of the Afghanistan Demographic and Health Survey from 2012 and 2015, which showed that women with more than 6 children were more likely to use contemporary contraceptives. This may be because women who have fewer children may need to have more children in order to have the ideal number of children [39, 42].

Utilization of contemporary contraceptive methods was favorably correlated with the husband's educational status.

When compared to women whose husbands were uneducated, women with husbands who had completed primary education were roughly 1.4 times more likely to use the modern method of contraception. The results are in line with data from the 2014 Bangladesh Demo-graphic and Health Survey, which showed that women with educated husbands were 1.28 times more likely to use contemporary contraceptives than women without educated husbands [40-43].

CONCLUSION

Unexpectedly little modern contraception use was found among reproductive-age women visiting FRRH in the current investigation. Among reproductive-age women attending FRRH, age, place of residence, woman's occupation, number of living children, husband's education, age at first sexual encounter, husband's desire for additional children, wealth index, and TV watching were independent predictors of contemporary contraceptive use. These characteristics should be taken into account in any intervention plan that encourages the use of contemporary contraceptive methods for greater success. Future researchers interested in the topic should also take into consideration qualitative elements like socio-cultural considerations, which could have a significant impact on the use of modern contraceptives.

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