

Title

Predictors of Reported Side Effects from Contraceptive Use among Females in Predominantly Rural Communities in Central Ghana

Authors

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Background

Contraceptive use is known to significantly prevent maternal deaths¹. Side effects among several other reasons like societal stigma and how providers relate to clients have been attributed to females' poor use of contraceptive methods². Contraceptive use is generally low among females in low and middle-income countries (LMICs) and for that matter Ghana³. On the other hand, fertility rates, unwanted pregnancies and maternal deaths in LMICs are among the highest in the world^{4,5}. The total fertility rate (TFR) in Ghana for example has risen to 4.3 in 2011⁶ from 4.0 per female in 2008⁷. Identifying predictors to reported side effects from contraceptive use could go a long way to providing targeted services to improve family planning (FP) programs in LMICs. This manuscript is part of a larger sexual and reproductive health (SRH) study conducted within the coverage area of the Kintampo Health and Demographic Surveillance System (KHDSS) within the Kintampo North and South Districts of the Brong Ahafo Region of Ghana.

Objective

To determine predictors of reported side effects among females currently using contraceptive methods in a predominantly rural population in Central Ghana.

Methods and data

The KHDSS regularly collects information on the health and demographic needs of residents from the Kintampo North and South Districts in the Brong Ahafo Region of Ghana⁸. A cross-sectional SRH survey was carried out from July 2011 to December 2011. Structured questionnaires made up of close-ended questions were used for data collection. Data for this manuscript is from 1110 females aged between 15 and 49 years who responded to the question "Are you currently using a method to delay or prevent pregnancy" taken from the FP module of the SRH survey. The outcome variable was "reporting a side effect from current contraceptive use". There were 6 independent variables "age groups", "education", "occupation", "ever told by a health worker about anticipated side effects", "told what to do when side effects occurred" and "informed about anticipated side effects of current method at time of administration".

Data analysis

Verification and consistency checks were applied after data was double entered into Microsoft FoxPro. After further manual verification, data was transferred into IBM SPSS version 20 for analysis. Cross-tabulations helped identify relevant associations prior to univariate and multivariate logistic regression being used to define predictors.

Ethical considerations

Ethical approval was received from the KHRC Ethics Review Committee prior to the study. Experienced research assistants who received rigorous training on approaches to

data collection and consenting procedures administered the questionnaires due to the sensitive nature of the study.

Findings

Median age of the female participants was 29 years. Most frequently currently used contraceptives were the injectable, pills and withdrawal method. Univariate logistic regression yielded some statistically significant relationships with the 6 covariates. Multivariate analysis however came out with one covariate (ever told by a health worker about anticipated side effects) being of statistical significance (OR 0.30; 95% CI 0.12-0.72; $p= 0.01$) to side effects reporting by females currently using contraceptives.

Conclusion and implications

Study findings imply that females who had in the past been provided with information from a health/FP worker on anticipated side effects or problems relating to contraceptive use were less likely to report/experience side effects in the study population. Continuous education of women on FP methods with an emphasis on knowledge of side effects to be expected could result in a reduction of reported side effects.

References

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Table 1: Characteristics of respondents currently using a method of contraception

Characteristics	Number (n=1110)	Percentage
Currently using a method to delay or avoid pregnancy	1110	100
Experienced side effect with current method	145	13.1
Methods used		
Injectable	315	28.4
Pills	311	28.0
Rhythm method	226	20.4
Others	258	23.2
Place of residence		
Rural	570	51.4
Urban	540	48.6
Age groups		
15-19	128	11.5
20-24	209	18.8
25-29	249	22.4
30-34	200	18.0
35-39	154	13.9
40-44	105	9.5
45-49	65	5.9
Education		
No education	300	27.0
Primary	185	16.7
Middle/JHS	356	32.1
Secondary+	142	12.8
Missing	127	11.4
Ethnicity		
Akan	399	35.9
Mo	107	9.6
Northern	401	36.1
Other	78	7.0
Missing	125	11.3
Occupation		
Unemployed	210	18.9
Professional secretarial	38	3.4
Self-employed	258	23.2
Employed trader	31	2.8
Farmer, laborer, domestic	356	32.1
Minor	82	7.4
Other	8	0.7
Not known	20	1.8
Missing	107	9.6
Household wealth quintiles		
Most poor	127	11.4
More poor	162	14.6
Poor	189	17.0
Less poor	264	23.8
Least poor	318	28.6

Table 2: Predictors of reported side effects from contraceptive use

Characteristics	n (%)	Univariate logistic regression			Multivariate logistic regression		
		OR	95% CI	p-value	OR	95% CI	p-value
Age groups (N=1110)							
15-19	128 (11.5)	1			1		
20-24	209 (18.8)	0.09	0.02-41	0.01	0.73	0.09-6.18	0.77
25-29	249 (22.4)	0.34	0.14-0.82	0.02	1.25	0.23-6.74	0.79
30-34	200 (18.0)	1.08	0.51-2.30	0.83	2.72	0.62-11.96	0.19
35-39	154 (13.9)	1.51	0.71-3.20	0.29	3.38	0.80-14.19	0.10
40-44	105 (9.5)	1.17	0.53-2.58	0.70	2.15	0.49-9.44	0.31
45-49	65 (5.9)	0.58	0.23-1.48	0.25	1.35	0.25-7.11	0.73
Education (N=983)							
No education	300 (30.5)	1			1		
Primary	185 (18.8)	2.11	1.09-4.12	0.03	2.64	0.69-10.18	0.16
Middle/JHS	356 (36.2)	1.46	0.70-3.07	0.31	2.37	0.61-9.23	0.21
Secondary+	142 (14.4)	1.61	0.83-3.13	0.16	2.89	0.81-10.36	0.10
Occupation (N=1003)							
Unemployed	210 (20.9)	1			1		
Professional secretarial	38 (3.8)	0.34	0.12-0.96	0.11	0.75	0.06-9.09	0.82
Self-employed	258 (25.7)	0.69	0.20-2.41	0.69	1.74	0.09-34.71	0.72
Employed trader	31 (3.1)	0.54	0.21-1.42	0.37	0.51	0.05-5.76	0.59
Farmer, laborer, domestic	356 (34.5)	1.07	0.31-3.68	0.83	1.85	0.12-28.82	0.66
Minor	82 (8.2)	0.76	0.30-1.95	0.74	0.92	0.09-9.80	0.94
Others	28 (2.8)	0.05	0.01-0.40	0.01	0.00	0.00-	1.00
Ever told by a health/family planning worker of anticipated side effects or problems related to contraception method (N=874)							
Not told	718 (82.2)	1			1		
Ever told	156 (17.8)	0.17	0.11-0.26	<0.01	0.30	0.12-0.72	0.01
Told what to do when one experienced side effects or any problems with current contraceptive method (N= 379)							
Not told	239 (63.1)	1			1		
Told	140 (36.9)	0.36	0.22-0.59	<0.01	1.20	0.51-2.85	0.66
Informed about anticipated side effects/problems of current contraceptive method at time of administration (N= 1087)							
Not informed	869 (79.9)	1			1		
Informed	218 (29.1)	0.21	0.15-0.31	<0.01	0.56	0.23-1.36	0.20