

Why are grand multiparous women in Niger not using modern contraceptive? An analysis of demographic and health survey data.

Abstract

Niger has the highest total fertility rate in the world, grand multiparity is high and contraceptive prevalence is low as well. It has been established that grand multiparity is associated with adverse maternal and child health outcomes. Identifying the predictors of modern contraceptive non-use among these women will inform plans and strategies to increase usage among these women with high propensity to have more births thereby avoiding these adverse maternal outcomes. The study examined the predictors of non-use of modern contraceptive among grand multiparous women. Data from 2012/13 Niger Demographic and Health Survey (n=3157) was analyzed using the binary logistic regression and it was found that age, level of education, type of place of residence, wealth index, work status, exposure to family planning messages, fertility preference and husband's children desire are significant predictors of modern contraceptive nonuse among grand multiparous women in Niger. Recommendations have been made.

Introduction

Niger has the highest total fertility rate in the world [1]. Grand multiparity is prevalent and modern contraceptive use is low at 16% [2]. These two pose great danger to the lives of women by elevating the risk of unintended pregnancies, causing high-risk fertility as well as adverse maternal and child health outcomes [3-5]. Avoiding all these undesired outcomes requires the correct and consistent use of various contraceptive methods unfortunately, contraceptive prevalence is low in many developing countries including Niger. Furthermore, modern contraceptive use has been widely regarded as the most cost-effective strategies for engendering reproductive health and fostering socioeconomic development and are more effective than the traditional or natural methods [6-9]. It also helps to regulate fertility and thus contributes significantly to increasing women's access to educational and empowerment opportunities [10].

Parity is defined as the number of livebirths a woman has had. There are different categories of parity; primiparity is one live birth, multiple parity refers to more than one but less than five births and grand multiparity is defined as high parity i.e. five or more live births [5]. High parity especially grand multiparity has been identified to be associated with adverse pregnancy outcomes as well as increased likelihood of maternal mortality and mortality [4, 11-13]. Studies have found that contraceptive use is generally low among grand multiparous women [11], but the predictors of non-use have not been explored in order to inform plans and strategies to increase usage among this group of women. Hence, the study examined the predictors of modern contraceptive non-use among grand multiparous women in Niger.

Methods

The study utilized data from demographic and health survey data from Niger. The country was chosen for obvious reasons of the fact that it has the highest fertility rate in the whole world and low contraceptive prevalence rate. The study was conducted among women who have had 5 or more births based on the definition of grand multiparity as seen in literature. The study sample included 3,157 women who reported to have had 5 or more live births. The data was analyzed at three levels of univariate, bivariate and multivariate. In the univariate the level of grand multiparity was presented and frequency distribution of other socio-economic and demographic characteristics, fertility preference and level of women autonomy,

bivariate involved using the Pearson chi-square to test association between the variables and use of modern contraceptive and the multivariate analysis involved the presentation of three binary logistic regression models.

Findings

Table 1: Binary logistic regression of the predictors of modern contraceptive nonuse among grand multiparous women in Niger.

	Model 1		Model 2		Model 3	
	OR	[Conf. Interval]	OR	[Conf. Interval]	OR	[Conf. Interval]
Age (ref: 15-24)						
25-29	2.5	1.0-6.4			2.8**	1.1-7.3
30-34	2.2	0.9-5.5			2.6	1.0-6.7
35-39	1.7	0.7-4.2			2.3	0.9-5.9
40-44	2.1	0.8-5.3			3.1	1.1-8.4
45-49	4.7**	1.8-12.4			8.4**	3.0-23.7
Religion						
Non-Muslim	1.1	0.6-2.0			0.9	0.5-1.8
Level of Educational (ref: No Education)						
Primary	0.6**	0.4-0.9			0.6**	0.4-0.9
Post primary	0.3**	0.2-0.6			0.3**	0.2-0.6
Residence (ref: Urban)						
Rural	3.4**	2.4-4.6			2.9**	2.2-4.0
Wealth Index (ref: Poorest)						
Poorer	0.6	0.3-1.0			0.6	0.3-1.1
Middle	0.7	0.4-1.3			0.7	0.4-1.4
Richer	0.3**	0.2-0.5			0.4**	0.2-0.6
Richest	0.2**	0.1-0.4			0.3**	0.1-0.6
Work Status (ref: No)						
Yes	0.6**	0.4-0.7			0.6**	0.4-0.8
Mass Media Family planning Exposure (ref: Not Exposed)						
Exposed			0.4**	0.3-0.5	0.5**	0.4-0.7
Husband desire for children (ref: Both want same)						
Husband wants more			1.8**	1.3-2.6	1.9**	1.3-2.8
Husband wants fewer			1.8	1.0-3.3	2.3**	1.2-4.2
Don't know			1.8**	1.3-2.5	2.0**	1.4-2.8
Fertility preference (ref: Have another)						
Undecided			0.7	0.4-1.2	0.6	0.3-1.1
No more			0.7**	0.5-0.9	0.6**	0.4-0.8
Women Autonomy (ref: Low)						
Medium			1.0	0.7-1.4	1.1	0.8-1.5
High			0.5**	0.2-0.9	0.5	0.3-1.1

The result shows only the multivariate logistic regression, it was found that older grand multiparous women were significantly more likely to be nonusers of modern contraceptive compared to younger ones. The study also found that educated grand multiparous women were less likely to be nonusers of modern contraceptive compared to non-educated women (OR=0.6; CI: 0.4-0.9). In addition, rural women with grand multiparity are more likely to be nonusers of modern contraceptives compared to grand multiparous women residing in the urban areas (OR=2.9; CI: 2.2-4.0), it was also found in the study that grand multiparous women who are currently working are 40% less likely to be nonusers of modern contraceptive than those who are not working (OR=0.6; CI: 0.4-0.8). For exposure to family planning messages on mass media, it was found that grand multiparous women who are exposed to family planning messages on radio, television or newspaper/magazines are 50% less likely not to be using a modern contraceptive method than those without exposure to these messages (OR=0.5; CI: 0.4-0.7). Also, the study found that grand multiparous women whose husbands want more children are 90% more likely to be nonusers of modern contraceptive compared to those who both want the same (OR=1.9; CI: 1.3-2.8).

Furthermore, the analysis found that grand multiparous women who do not want anymore children were 40% less likely to be a nonuser of modern contraceptive compared to grand multiparous women who want to have another (OR=0.6; CI: 0.4-0.8). For the level of decision-making power and autonomy in the household, the study found that grand multiparous women with higher autonomy are 50% less likely to be nonusers of modern contraceptive compared to grand multiparous women with none or low autonomy in the household (OR=0.65; CI: 0.3-1.1). It was also found that there is a dose relationship between wealth index and nonuse of modern contraceptive, as grand multiparous women from the richer and richest households are the least likely to be nonusers of modern contraceptive.

Conclusion and Recommendation

Grand multiparity is prevalent in Niger, same as low modern contraceptive use. The significant predictors of nonuse of modern contraceptive among grand multiparous women are age of woman, type of place of residence, level of education, household wealth index, work status, exposure to family planning messages, husband's desire for ore children and fertility preference. The commitment of Niger Republic to the FP2020 is to increase modern contraceptive prevalence to 50% by 2020, this might not be achievable if there isn't a paradigm shift in the country's approach. It is hereby recommended that strategies should focus on grand multiparous women who are older, residing in rural areas, who have little or no exposure to family planning messages and have none or low decision-making power.

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