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Factors associated with unmet need for birth spacing among Angolan women

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Abstract

Unmet need for family planning (UNFP) remains a public health concern in Angola. The objective of this study was to analyze the factors associated with UNFP among Angolan women aged 15-49 years in 2015-2016. This was an analytical cross-sectional study. A multiple logistic regression model using data from the Angola Demographic and Health Survey 2015-2016 was performed to determine the associated factors. In total, the study involved 8033 women, 22% of whom were between 25-29 years of age. A large number (65%) lived in urban areas and 39% had primary education. About 1/4 of the women (26%) had UNFP for birth spacing. Associated factors were multiple. Age, credible source of information on family planning were protective factors against UNFP for birth spacing while economic level, the woman's level of education were risk factors for NFP. *(Afr J Reprod Health 2022; 26[6]:22-26).*

Keywords: Associated factors, unmet need, family planning, Angola

Résumé

Les besoins non satisfaits en planification familiale (BNSP) demeurent une préoccupation de santé publique en Angola. L'objectif de cette étude était d'analyser les facteurs associés aux BNSP des femmes angolaises. Il s'agissait d'une étude transversale à visée analytique. Un modèle de régression logistique multiple à partir des données secondaires de l'Enquête Démographique et de Santé de l'Angola 2015-2016 a été fait. Au total, 8033 femmes ont été incluses dans cette étude. La majorité des femmes (22%) avaient un âge compris entre 25-29 ans. Environ 39% de ces femmes angolaises avaient un niveau d´instruction primaire. Un quart des femmes (26%) avaient des BNSP. Les facteurs associés étaient multiples. L'âge, une source crédible d'information sur la planification familiale étainet des facteurs de protection contre la PFNU pour l'espacement des naissances, tandis que le niveau économique et le niveau d'éducation de la femme étaient des facteurs de risque pour la PFNU. *(Afr J Reprod Health 2022; 26[6]:22-26).*

Mots-clés: Facteurs associés, besoins non satisfaits, planification familiale, Angola

Introduction

Unwanted pregnancies are a public health problem. On the one hand, they are the cause of abortions, generally performed in unsafe conditions, increasing the risk of maternal death and unplanned births[1]. These unplanned births pose problems for the health and well-being of individuals (mother-child pairs) and families and contribute to accelerated population growth[2]. They also compromise the chances of survival for the children. An inter-reproductive interval of less than 12 months increases by 70 to 80% the risk of death for the child before his or her fifth birthday[3]. The consequences of accelerated population growth in developing countries can be observed in the health sector through a shortage of health workers to cover the size of the population to be served[4]. They are seen in the education sector through the increasing size of school-age generations; and in national economic management through investment in social sectors at the expense of directly productive investments such as industry and agriculture[5].

Thus, birth control has become very important in sub-Saharan Africa. The use of contraceptives in birth control reduces maternal and

child mortality related to complications of pregnancy and childbirth and slows population growth[6]. Contraception reduces the number of unwanted pregnancies by two thirds, reduces juvenile mortality by nearly 10 per cent, reduces child mortality by 13 per cent and reduces fertility by 17 to 18 per cent if it is accessible to all who need it[7-9]. The World Health Organization (WHO) has estimated that 225 million women of reproductive age in developing countries wanted to delay or stop having children but were not using contraception in 2014. The Republic of Angola, like many other countries in sub-Saharan Africa, is characterized by a low prevalence of contraceptive use, even though it is among the countries with the highest population growth indices (2.7)[10].

Addressing the factors associated with unmet need is a real way to meet the total demand for FP contraceptives[11]. To do so, prior knowledge of these factors is essential. Based on the existing literature, little is known about the factors associated with unmet need for family planning in Angola[12]. With this in mind, we conducted this study to fill this gap.

Methods

Type and population of study

This was an analytical cross-sectional study carried out using secondary data from the Angola Demographic and Health Survey in 2015-2016. The population of our study consisted of Angolan women aged between 15 and 49 years. The study included all Angolan women aged between 15 and 49, married or in consensual unions, who had given their consent. Only women present in Angolan territory were included. Women who refused to give consent were not included in the study.

Sampling

The sample for the 2015-2016 Angola Demographic and Health Survey is based on a stratified random sample drawn at two levels. In the first stage, 627 clusters, 282 of which were rural, were drawn from the list of enumeration areas established during the General Census of Population and Housing conducted in 2014 by the National Institute of Statistics, using a systematic draw with probability proportional to the size of the enumeration area, the size of the cluster being the number of households. An enumeration of households in each of these clusters provided a list of households from which a sample of 26 households in each of the urban and rural clusters was drawn at the second stage, and a total of 1,6302 households were selected, of which 7,332 were in rural areas. All women aged 15-49 years usually living in the selected households or present the night before the survey were eligible to be surveyed. A total of 1,5947 women aged 15 to 49, including 7,145 from rural areas, were targeted for the 2015-2016 DHS. Applying the inclusion criterion, 8,033 women, including 3,384 from rural areas, were selected for our study.

Statistical analysis

The processing and analysis of our data were performed using Stata software version 14.0 MP (Parallel Edition). Before proceeding to the data analysis, recoding of the variables according to the different modalities was done. On this occasion, in order to make the statistical analyses possible according to the analysis plan used in this work, we developed classification scales by dividing certain distributions into classes. The analyses were descriptive and analytical (uni- and multivariate logistic regression models). Since the DHS is a population-based survey, a weighting of our sample was done to take into account this weighting, i.e. the weight of each woman in the population during the analyses.

A simple logistic regression model was used to measure the ORs of the association between the UNFP and each of the independent variables. Raw ORs were calculated and explanatory variables with a significance level of less than 0.20 in the univariate analysis were included in the initial multiple logistic regression model. However, the variable "place of residence", which is a variable unanimously known in the literature to be associated with the UNFP, was forced into the multiple logistic regression model. For the selection of each variable in the final model, the stepwise ascending procedure was used. It consisted of gradually including the explanatory variables in a minimalist model, leaving out those that did not provide sufficient information for the model. The choice of variables in the model was done carefully using the Adjusted Wald test, if

the p-value ≤ 0.05 the variable is maintained in the model, and so on until the final model was obtained. The specification or adequacy of each final model was done using the goodness-of-fit test or the F-adjusted test statistic. For the interpretation of the ORs, the significance threshold of 0.05 was used.

Results

Socio-demographic data

A total of 8033 women were included in this study. Table I shows that 26% of the women had UNFP for spacing and 11% had UNFP for limitation. Almost a third of the women (31%) had more than 5 living children; 22% of the women were between 25-29 years of age, 77% knew at least one modern method of contraception, and 65% lived in urban areas. Portuguese was the language most spoken (66%) by Angolan women. Catholic Christian women were in the majority (40%). The level of primary education represented 39%. There is almost an equal distribution (21%) of Angolan women according to the socio-economic status of households. Up to 36% of women lived in the capital city (Luanda).

Factors associated with UNFP

Factors significantly ($p<0.05$) associated with the UNFP for birth spacing were woman's age, socioeconomic status, source of information on FP, woman's education level, and knowledge of modern methods. No association was found between place of residence and UNFP for birth spacing.

Discussion

The study showed that the age of the woman, number of surviving children, socioeconomic status, source of information on FP, woman's level of education, modern methods knowledge, and region of residence were significantly associated with the UNFP for birth spacing. Age is a protective factor against UNFP for birth spacing. Compared to women aged 15-19, women aged 20-49 have a lower risk of having UNFP for birth spacing, and this risk continues to decrease with age. This observed protective association between age and UNFP for birth spacing in women leads us to say that these women, whose current offspring are far from the desired offspring, use spacing contraception more. This result is contrary to that found by Wulifan[13] in his study of data collected in low- and middle-income countries. This could be explained in the Angolan context by the fact that most women (65% and 68% respectively) in these age groups lived in urban areas where they have access to information on contraceptive methods, which are physically and financially reachable to them. In addition, the high education level of these women makes them more exposed to information on FP and therefore more concerned about controlling their fertility.

The socio-economic status of households influences the unmet need for birth spacing. Compared to women with very low socio-economic status, women in households with intermediate socio-economic status are 1.40 [1.05 - 1.88] times more likely to have an unmet need for birth spacing. This could be explained in the Angolan context by the fact that wealthier women are the most educated and have professional occupations. This makes them in perpetual need to limit and space births for their fulfillment contrary to their counterpart women with a very low socio-economic status. They, therefore, have a higher birth rate than poor women. Roderic Beaujot[14] found in a study in Eritrea that women from households with intermediate economic levels were more likely to express a UNFP for birth spacing than their peers from households with low economic levels.

The source of information significantly affects only the unmet need for birth spacing. Women who received FP information through the media are 1.40 [1.03 - 1.88] times more likely to have UNFP for birth spacing compared to those who received information through the media and healthcare workers. The quality of media messages on FP would explain this association in Angola. The messages broadcasted by radio and television in Angola do not provide enough information on FP. Idowu *et al.*[15] found that poor sensitization of women on FP was associated with UNFP in Nigeria. The results of the study conducted in Kenya showed that exposure to the mass media was associated with UNFP[16].

Women with primary education are 1.19 (CI= [1.00-1.41]) times more likely to have UNFP for birth spacing than their peers with no education.

Table 1: Characteristics of Angolan women aged between 15 and 49 who are married or in union in 2015-2016

Variables	Size	Proportion (%)
Matrimonial regime		
Monogamy	5991	77.95
Polygamy	881	22.05
Place of Residence		
Urban	4649	64.71
Rural	3384	35.29
Woman's age (years)		
15-19	686	7.86
20-24	1650	19.88
25-29	1734	21.6
30-34	1341	16.88
35-39	1138	14.56
40-44	891	11.73
45-49	593	7.51
Woman's education level		
No education level	2667	27.46
Primary level	3039	38.9
Secondary level and more	2327	33.63
Woman's occupation		
Has no job	2220	25.3
Employee	852	14.83
Farmer	2874	29.67
Trader	1649	24.42
Executive	438	5.78
Woman's religion		
Other religions	974	14.89
Catholic christians	3229	40.33
Protestant christians	3348	39.11
Without religion	482	5.66
UNFP for birth spacing		
No	5871	73.93
Yes	2162	26.07

Table 2: Factors associated with unmet need for family planning for birth spacing among Angolan women aged 15-49 years

Variables	Adjusted OR	95% CI	P value
Woman's age (years)			
15-19	Ref		
20-24	0.72**	[0.57 – 0.92]	0.01
25-29	0.56***	[0.42 – 0.73]	<0.001
30-34	0.42***	[0.32 – 0.57]	<0.001
35-39	0.28***	[0.21 – 0.37]	<0.001
40-44	0.16***	[0.11 – 0.22]	<0.001
45-49	0.05***	[0.02 – 0.09]	<0.001
Socio-economic status of the household			
Very poor	Réf		
Poor	1.11	[0.89 – 1.38]	0.36
Intermediary	1.40**	[1.05 – 1.88]	0.02
Rich	1.21	[0.84 – 1.74]	0.31
Very rich	1.1	[0.73 – 1.67]	0.64
Place of residence			
Urban	Réf		
Rural	1.07	[0.87 – 1.30]	0.53
Source of information on FP			
Media and health professionals	Ref		
Media	1.40**	[1.03 – 1.88]	0.03
Health professionals	1.50	[0.96 – 2.35]	0.08
No source	1.38	[0.99 – 1.92]	0.06
Modern methods knowledge			
No	Ref		
Yes	1.23**	[1.05 – 1.44]	0.01
Woman's education level			
No education level	Réf		
Primary level	1.19**	[1.00 – 1.41]	0.04
Secondary level and more	1.07	[0.85 – 1.35]	0.56

*** p<0.01, ** p<0.05

As a woman's education improves, her UNFP for birth spacing decreases. Angolan women with primary education would not have a good knowledge of FP methods or understand the importance of FP. The occupation of these women would also justify this result. Most of them often do not have work responsibilities that require them to control their births. In contrast to our findings and those of Wulifan from his study in low- and middle-income countries[13]. The results of the studies conducted in Eastern Sudan by Abdel Aziem and the one conducted in India by Malini M Battathiry came to the opposite conclusion. In their view, the risk of having UNFP increased as women's educational level increased[17-18]. Women who know about modern FP methods are 1.23 (CI= [1.05-1.44]) times more likely to be exposed to UNFP for birth spacing than those who have no knowledge. This result could result from the fact that women are poorly sensitized about family planning. In Angola, a woman using modern contraceptive methods is considered a prostitute by the community. Furthermore, the additional costs of these methods prevent women from satisfying their FP needs. Fear of the side effects of modern FP methods would also explain this association. Malini demonstrated that

poor knowledge of modern FP methods was a factor associated with UNFP in India[18].

Conclusion

Unplanned births pose problems for the health and well-being of individuals and contribute to accelerated population growth. The consequences of accelerated population growth in developing countries can be observed in all sectors of development. This study, based on the Angolan Demographic and Health Survey database, allowed us to identify factors associated with unmet need for family planning. In order to satisfy the total demand for family planning, the factors likely to have a significant impact on the level of unmet need, as highlighted by the analysis carried out in this study, should therefore be taken into account by the authorities to set up a family planning programme adapted to the context of Angola.

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