

## **INFLUENCE OF THE SOCIODEMOGRAPHIC AND REPRODUCTIVE CHARACTERISTICS ON REPRODUCTIVE AUTONOMY AMONG WOMEN**

Ana Cleide da Silva Dias<sup>1</sup> 

Silvia Lúcia Ferreira<sup>2</sup> 

Maria Enoy Neves Gusmão<sup>2</sup> 

Gabriela Cardoso Moreira Marques<sup>3</sup> 

<sup>1</sup>Universidade do Vale do São Francisco, Colegiado de Medicina. Petrolina, Pernambuco, Brasil.

<sup>2</sup>Universidade Federal da Bahia, Escola de Enfermagem. Salvador, Bahia, Brasil.

<sup>3</sup>Universidade Estadual da Bahia, Departamento de Enfermagem. Vitória da Conquista, Bahia, Brasil.

### **ABSTRACT**

**Objective:** to analyze the influence of the sociodemographic and reproductive characteristics on reproductive autonomy among women through the subscales of the Reproductive Autonomy Scale.

**Method:** an analytical and cross-sectional study with a stratified sample composed of 346 female rural workers registered in *Chapéu de Palha Mulher* Program in Pernambuco. Data collection occurred in the month of February 19<sup>th</sup> and February 23<sup>rd</sup>, 2018. The National Health Survey questionnaire and the Reproductive Autonomy Scale were used. The data were analyzed using simple and multiple linear regression analyses.

**Results:** the women presented high reproductive autonomy with the lowest autonomy being observed in relation to the “Communication” construct. Marital status, education level, skin color/race, participation in a family planning group, and having already being pregnant are significant variables for total reproductive autonomy.

**Conclusion:** the full reproductive autonomy of rural women can be influenced by sociodemographic and reproductive variables. One of the ways to increase reproductive autonomy among the women in this study would be through an intervention aimed at health education on sexual and reproductive rights and power and gender relations so that women can be guided, obtain more information on these topics, and correlate them with reproductive autonomy.

**DESCRIPTORS:** Decision-making. Sexual and reproductive rights. Gender. Socioeconomic factors. Working women.

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# INFLUÊNCIA DAS CARACTERÍSTICAS SOCIODEMOGRÁFICAS E REPRODUTIVAS SOBRE A AUTONOMIA REPRODUTIVA ENTRE MULHERES

## RESUMO

**Objetivo:** analisar a influência das características sociodemográficas e reprodutivas sobre a autonomia reprodutiva entre mulheres através das subescalas da Escala de Autonomia Reprodutiva.

**Método:** estudo analítico e transversal com amostra estratificada composta por 346 trabalhadoras rurais cadastradas no Programa Chapéu de Palha Mulher em Pernambuco. A coleta de dados ocorreu no mês de fevereiro de 2018, entre os dias 19 e 23. Utilizou-se o questionário da Pesquisa Nacional de Saúde e a Escala de Autonomia Reprodutiva. Os dados foram analisados através de análises de regressão linear simples e múltipla.

**Resultados:** as mulheres apresentaram alta autonomia reprodutiva sendo que a menor autonomia foi observada em relação ao constructo “Comunicação”. Estado conjugal, grau de instrução, cor/raça participação em grupo de planejamento familiar e já ter ficado grávida constituem variáveis significativas para a autonomia reprodutiva total.

**Conclusão:** a autonomia reprodutiva total das mulheres rurais pode ser influenciada por variáveis sociodemográficas e reprodutivas. Uma das formas de aumentar a autonomia reprodutiva entre as mulheres deste estudo seria por meio da intervenção voltada para a educação em saúde sobre direitos sexuais e reprodutivos e relações de poder e gênero para que as mulheres possam ser orientadas, obter mais informações sobre estes temas e correlacioná-los com a autonomia reprodutiva.

**DESCRITORES:** Tomada de decisões. Direitos sexuais e reprodutivos. Gênero. Fatores socioeconômicos. Mulheres trabalhadoras.

# INFLUENCIA DE LAS CARACTERÍSTICAS SOCIODEMOGRÁFICAS Y REPRODUCTIVAS SOBRE LA AUTONOMÍA REPRODUCTIVA ENTRE MUJERES

## RESUMEN

**Objetivo:** analizar la influencia de las características sociodemográficas y reproductivas en la autonomía reproductiva de las mujeres a través de las subescalas de la Escala de Autonomía Reprodutiva.

**Método:** estudio analítico y transversal con muestra estratificada compuesta por 346 trabajadores rurales inscritas en el *Programa Chapéu de Palha Mulher* en Pernambuco. La recolección de datos se realizó entre los días 19 y 23 de febrero de 2018. Se utilizó el cuestionario de la Encuesta Nacional de Salud y Escala de Autonomía Reprodutiva. Los datos se analizaron mediante análisis de regresión lineal simple y múltiple.

**Resultados:** las mujeres presentaron alta autonomía reproductiva, con menor autonomía en el constructo “Comunicación”. El estado civil, el nivel de educación, la etnia/raza, la participación en un grupo de planificación familiar y haber quedado embarazada son variables importantes para la autonomía reproductiva total.

**Conclusión:** la autonomía reproductiva total de la mujer rural puede verse influenciada por variables sociodemográficas y reproductivas. Un medio para incrementar la autonomía reproductiva de las mujeres en este estudio sería una intervención dirigida a la educación en salud sobre derechos sexuales y reproductivos y relaciones de poder y género a fin de que las mujeres puedan ser guiadas, obtener más información sobre estos temas y correlacionarlos con la autonomía reproductiva.

**DESCRITORES:** Toma de decisiones. Derechos sexuales y reproductivos. Género. Factores socioeconómicos. Mujeres trabajadoras.

## INTRODUCTION

The understanding of reproductive rights as reproductive freedom occurring only in the private sphere was highly censored by feminists, as it is in the family environment that the greatest violations of women's rights over their reproductive autonomy occur and under conditions of gender, class and culture inequalities.<sup>1</sup>

Such debates pointed out that social groups deprived of rights, as is the case of women, are not allowed to express their individual choices dissociated from the settings where they are inserted. For this reason, they indicated the obligation of the State and society to facilitate conditions that favor opportunities for women to choose their own reproductive rights, considering them as human rights.<sup>1</sup>

The concept of reproductive rights originated within the feminist movement in the struggle for the recognition of women's rights regarding sexuality and reproduction, and they do not only concern sexual and reproductive health, but also freedom, non-discrimination, respect for choices, education to make decisions possible, self-determination and free choice of motherhood and paternity.<sup>2</sup>

Thus, it can be asserted that reproductive rights are related to reproductive autonomy, in points related to when to get pregnant, how many children, the spacing between one pregnancy and another, among others, but in the practice, among women, many times this type of action does not occur.<sup>3</sup>

The denial about reproductive autonomy ends up mischaracterizing the principles of human rights, which promoted debates with the purpose of recognizing women to enjoy this type of autonomy, for example, the Federal Constitution of 1988, the Action Plan of the International Population and Development Conference, in Cairo, in 1994, and the 4<sup>th</sup> International Conference on Women, in Beijing, in 1995, the latter two being milestones with regard to the explanation of reproductive rights.<sup>2</sup>

In order to achieve better health for the population, the 2030 Agenda of the Sustainable Development Goals, taking into account the reality in Brazil, points out several goals, among which, in its third objective, is goal 3.7, to guarantee through educational actions, assistance, among others, the sexual and reproductive health of women of childbearing age.<sup>4</sup>

In its fifth objective, one of its goals (5.6) is to achieve gender equality and empower all women, promote, protect and guarantee sexual and reproductive health, and sexual and reproductive rights, without discrimination or coercion. These two goals interact, even when we consider that gender and health intertwine with ethnicity, class, socioeconomic status, disability, age, geographic location, culture, sexual orientation and gender identity to achieve equality in health, especially rural women.<sup>4</sup>

Women encounter obstacles to exercising reproductive autonomy and one of the difficulties is related to their sociodemographic and reproductive characteristics; therefore, in this type of autonomy, importance is given to the social context,<sup>5</sup> age, religion, occupational activity, marital status, educational level,<sup>6</sup> skin color/race,<sup>7</sup> use of contraceptive methods,<sup>8</sup> having already been pregnant<sup>7</sup> and participation in reproductive planning groups.<sup>9</sup>

Based on epidemiological data, 41% of all the pregnancies in the world are unintentional and, among the reasons, are partner objection and cultural and gender issues.<sup>3</sup> In Nigeria, 27,135 women participated in a research study to assess reproductive autonomy and, of these, 61.1% reported that the decisions were made by the partner.<sup>6</sup> A study carried out with women in Pennsylvania indicated that, of the 66 participants, 38% reported reproductive coercion and with a higher proportion among those with low purchasing power, low schooling level, and black-skinned.<sup>10</sup>

Implementation regarding reproductive autonomy points to the importance of deepening the discussion, mainly aimed at population groups with greater socioeconomic and cultural vulnerability, as is the case of the women in rural regions who have this profile, and who are still marked by the patriarchal ideology and by gender and power inequalities.<sup>11</sup>

Rural Brazil has more than 14 million women, 24.8% with a low schooling level and, of these 52.3% are illiterate or have only 3 years of study and low economic conditions, in addition to presenting cultural diversity and connections between inequalities that mark them, since they are women (gender) and female rural workers (class),<sup>12</sup> a condition that can provide difficulties for women to exercising their reproductive autonomy.

It is worth mentioning that, in many situations, rural work is marked by social determinants and certain sociodemographic characteristics that may cause social exclusion, devaluation and precariousness in the activities carried out, as it is mostly composed of young, black-skinned and low-income workers with low schooling level.<sup>13</sup>

Under these exposed perspectives, and in an attempt to assess reproductive autonomy, researchers at the University of California developed and validated a specific instrument involving American women - the Reproductive Autonomy Scale - from which they identified that reproductive intentions can be influenced by multifactorial issues, including sociodemographic and reproductive issues.<sup>3</sup>

This instrument has value since, due to the lack of mechanisms for assessing the ability of women to achieve their reproductive autonomy and their interaction with sociodemographic and reproductive characteristics, it can contribute to the understanding of this complex phenomenon by providing input for discussions, filling in the gap that is found in the literature on this type of autonomy.<sup>3</sup>

Therefore, the conduction of studies that address the theme of reproductive autonomy involving female rural workers is relevant due to its sociodemographic characteristics, becoming a starting point for the identification of sociodemographic factors that can affect this type of autonomy among women, allowing for greater visibility. From this context, the objective of the study was to analyze the influence of the sociodemographic and reproductive characteristics on reproductive autonomy among female rural workers through the subscales of the Reproductive Autonomy Scale.

## METHOD

An analytical and cross-sectional study carried out with female rural workers of childbearing age, considering the minimum age of 18 years old due to the Consolidation of the Labor Laws (*Consolidação das Leis Trabalhistas*, CLT); residents in 2018 in the municipalities covered by the *Chapéu de Palha Mulher* Program - PE (Petrolina, Lagoa Grande and Santa Maria da Boa Vista).

The sample for this research was of the proportional stratified type based on the total population of 3,454 registered women, maximum percentage of 50%, sampling error of 5% and 95% confidence level in the finite population formula, with the population being divided into strata, according to the registration of female rural workers by municipality: Petrolina (2,760), Lagoa Grande (656) and Santa Maria da Boa Vista (38). Then, a random sample was selected from each stratum. Thus, proportionally, 276 women from Petrolina, 66 from Lagoa Grande and 4 from Santa Maria da Boa Vista were analyzed, totaling 346 women.

Those with cognitive or psychiatric diseases that could hinder understanding of the data collection instrument were excluded, as well as those that, for some reason, did not finish the interview.

The research was guided by the ethical precepts that govern Resolution No. 466/2012 of the National Health Council (*Conselho Nacional de Saúde*, CNS). Data collection began with the participants initially being informed about the research objectives, the guarantee of privacy and confidentiality of information, the right to withdraw at any moment without any loss, and their voluntary contribution. In the absence of refusal, all signed the Free and Informed Consent Form (FICF).

Data were collected by means of individual interviews, during the registration of female rural workers in each municipality covered by the program in February 2018, between the 19<sup>th</sup> and the 23<sup>rd</sup>, with the participation of the researcher, three Nurses and two Community Health Agents trained by the researcher responsible for the research. Two instruments were used for data collection, described below:

First instrument: the Reproductive Autonomy Scale<sup>14</sup> with the objective of assessing reproductive autonomy, using three subscales as dependent variables: “Decision-making”, which assesses who decides on using a method to prevent pregnancy, when to have a baby and about an unplanned pregnancy; “Absence of coercion”, which addresses whether the partner prevented, hindered or pressured the woman to use any contraceptive method to prevent pregnancy; and “Communication”, related to the woman’s comfort situation in talking to her partner about her reproductive choices.<sup>(3)</sup>

Second instrument: considering that women’s reproductive autonomy can be influenced due to their sociodemographic and reproductive characteristics, the questionnaire of the 2013 National Health Survey<sup>15</sup> was used to contemplate, as independent variables, the sociodemographic characteristics related to the women (age, marital status, schooling level, self-declared skin color/race, religion, and age at which they started working) and the reproductive characteristics (participation in family planning groups, contraceptive methods and if they have already been pregnant).<sup>15</sup>

The data were tabulated in Excel 2010 spreadsheets and the sociodemographic and reproductive variables were analyzed using descriptive statistics procedures to express the results as absolute and relative frequencies. For the descriptive analysis of the reproductive autonomy scores, according to each domain of the Reproductive Autonomy Scale, the mean values, standard deviations and minimum and maximum values were calculated. In the analysis of the normality of the variables, the Shapiro-Wilk and Kolmogorov-Smirnov tests were adopted, while homoscedasticity was verified using the Levene test.

To analyze the relationships between the scores of reproductive autonomy and the sociodemographic and reproductive variables, the Mann-Whitney, Kruskal-Wallis and Spearman correlation tests were applied.

Simple and multiple linear regression analyses were conducted to assess which independent variables are more significant as determinants of the total reproductive autonomy score. For the multiple model, the backward method was used, with all the independent variables initially incorporated into the model and then, in stages, to later remove, one by one, the variables with a significance level ( $\alpha$ ) of 20%, or p-value > 0.20.

In this way, all the variables that reached an  $\alpha \leq 0.20$  were kept in the multiple regressive model. The significance level adopted in the study was p-value  $\leq 0.05$  and all the analyses were performed using IBM SPSS Statistics for Windows (IBM SPSS 21.0, 2012, Armonk, NY: IBM Corp.).

## RESULTS

A total of 346 women took part in the study with ages varying from 18 to 47 years old, their mean age being 29.6 years old (SD = 7.2). In the sample, women who were married or with a partner prevailed; with low schooling level (49.4%) and with some religion (89.3%); self-declared white-skin color/race was minoritarian. The mean age at which they started working was 17.2 years old. Most of them used contraceptive methods and had already being pregnant at least once. However, the largest proportion of the sample had not participated in a family planning group in the last 12 months (Table 1).

**Table 1** – Sociodemographic and reproductive characteristics of female rural workers. Petrolina, Lagoa Grande and Santa Maria da Boa Vista, PE, Brazil, 2018. (n=346)

<b>Variable</b>	<b>Mean / n</b>	<b>SD* / %</b>
Age (years old)	29.6	7.2
Marital status (%)		
Single/Without partner	117	33.8
Married/With partner	229	66.2
Schooling level (%)		
< Basic	96	27.7
Basic	75	21.7
Elementary school	118	34.1
≥ High school	57	16.5
Skin color/Race (%)		
Black	306	88.4
White	40	11.6
Religion (%)		
With some religion	309	89.3
No religion	37	10.7
Age that started working (years old)	17.2	3.5
Participation in family planning group in the last 12 months		
No	301	87.0
Yes	45	13.0
Use of some method to prevent pregnancy		
No	77	22.3
Yes	268	77.7
Has already been pregnant		
No	31	9.0
Yes	315	91.0

\*SD: Standard Deviation

The mean values, standard deviations and minimum and maximum scores, according to each domain of the Reproductive Autonomy Scale, evaluated among female rural workers, are described in Table 2. As the scale is of the Likert type, the mean of the scores of all the items in each subscale was calculated, which generated a minimum score of 1 and maximum score of 3 for the first subscale, and from 1 to 4 for the second and third subscales.

It was considered that the closer to the maximum score, the greater the reproductive autonomy perceived by the woman in relation to each subscale. The mean of the scores ranged from 2.54 to 3.43. In general, the women in the study presented high reproductive autonomy (2.94), with greater autonomy observed in relation to the constructs “Absence of coercion” with 3.43 (1.80 - 4.00) and “Decision-making” with 2.54 (1.00 - 3.00) and less autonomy in relation to “Communication” with 2.77 (1.00 - 4.00).

**Table 2** – Descriptive analysis of the reproductive autonomy scores, according to each domain of the Reproductive Autonomy Scale, Brazilian version, Brazilian workers. Petrolina, Lagoa Grande and Santa Maria da Boa Vista, PE, Brazil, 2018. (n=346)

Factor (subscale)	Mean	Standard deviation	Minimum – Maximum
Decision-making	2.54	0.41	1.00 – 3.00
Absence of coercion	3.43	0.58	1.80 – 4.00
Communication	2.77	0.47	1.00 – 4.00
TOTAL	2.94	0.32	1.71 – 3.50

Shapiro-Wilk test; Kolmogorov-Smirnov test; Levene test

To understand the level of reproductive autonomy, the scores of the Reproductive Autonomy Scale of each subscale were compared according to the sociodemographic characteristics of the women under study (Table 3).

The analyses indicated that married women/with a partner presented greater reproductive autonomy in the “Absence of coercion” construct ( $3.48 \pm 0.57$ ), when compared to single women or without a partner ( $3.34 \pm 0.58$ ;  $p=0.025$ ). Women with a higher schooling level ( $\geq$  high school), on the other hand, demonstrated greater autonomy in the “Communication” construct ( $2.90 \pm 0.50$ ) than women with little instruction (elementary school or lower) ( $2.67 \pm 0.53$ ;  $p=0.024$ ). As for the “Decision-making” score, there were no differences, according to the sociodemographic variables evaluated.

**Table 3** – Mean values, standard deviations and p-value among the reproductive autonomy scores, according to the sociodemographic characteristics of the female rural workers, 2018. Petrolina, Lagoa Grande and Santa Maria da Boa Vista, PE, Brazil, 2018. (n=346)

Variable	Decision-making	Absence of coercion	Communication
Age (Spearman correlation)	0.06 ( $p=0.284$ )	0.02 ( $p=0.678$ )	- 0.03 ( $p=0.535$ )
Marital status			
Single/Without partner	$2.59 \pm 0.40$	$3.34 \pm 0.58$	$2.69 \pm 0.53$
Married/With partner	$2.52 \pm 0.42$	$3.48 \pm 0.57$	$2.82 \pm 0.44$
p-value*	0.182	0.025	0.054
Schooling level			
< Basic	$2.55 \pm 0.41$	$3.37 \pm 0.63$	$2.78 \pm 0.42^a$
Basic	$2.57 \pm 0.38$	$3.47 \pm 0.50$	$2.67 \pm 0.53^a$
Elementary school	$2.52 \pm 0.46$	$3.41 \pm 0.61$	$2.78 \pm 0.45^a$
$\geq$ High school	$2.56 \pm 0.35$	$3.54 \pm 0.49$	$2.90 \pm 0.50^b$
p-value <sup>†</sup>	0.992	0.537	0.024
Skin color/race			
Black	$2.54 \pm 0.42$	$3.42 \pm 0.58$	$2.76 \pm 0.49$
White	$2.58 \pm 0.37$	$3.53 \pm 0.51$	$2.88 \pm 0.31$
p-value*	0.789	0.336	0.336
Religion			
With some religion	$2.53 \pm 0.42$	$3.43 \pm 0.58$	$2.77 \pm 0.48$
No religion	$2.63 \pm 0.38$	$3.45 \pm 0.57$	$2.77 \pm 0.43$
p-value*	0.195	0.813	0.704
Age that started working (Spearman correlation)	- 0.01 ( $p=0.901$ )	- 0.04 ( $p=0.443$ )	- 0.07 ( $p=0.187$ )

Values are expressed as mean $\pm$ standard deviation; \*Mann-Whitney test; <sup>†</sup>Kruskal-Wallis test (<sup>a,b</sup> distinct superscript letters indicate statistical difference by the Mann-Whitney test)

The reproductive autonomy scores of each subscale were also compared, according to the reproductive characteristics of the sample (Table 4). The analyses indicated that women with participation in a family planning group in the last 12 months demonstrated greater autonomy in the “Absence of coercion” (3.76±0.38) construct, when compared to those who did not indicate participation (3.38±0.59;  $p < 0.01$ ). The scores for “Decision-making” and “Communication” did not presented differences, according to the reproductive characteristics analyzed.

**Table 4** – Mean values, standard deviations and p-value among the reproductive autonomy scores according to the reproductive characteristics of the female rural workers. Petrolina, Lagoa Grande and Santa Maria da Boa Vista, PE, Brazil, 2018. (n=346)

Variable	Decision-making	Absence of coercion	Communication
Participation in family planning group in the last 12 months			
No	2.53±0.42	3.38±0.59	2.79±0.45
Yes	2.66±0.35	3.76±0.38	2.67±0.59
*p-value	0.062	< 0.001	0.461
Use of some method to prevent pregnancy			
No	2.58±0.40	3.39±0.63	2.75±0.56
Yes	2.54±0.42	3.44±0.56	2.78±0.45
*p-value	0.398	0.740	0.999
Has already been pregnant			
No	2.56±0.34	3.33±0.62	2.67±0.56
Yes	2.54±0.42	3.44±0.57	2.78±0.46
*p-value	0.826	0.418	0.293

Values are expressed as mean±standard deviation; \*Mann-Whitney test

For the prediction of total reproductive autonomy in female rural workers in the region of Vale do São Francisco, the univariate regression analysis found significance with the Participation in Family Planning Group variable ( $p=0.011$ ). The other estimates for simple linear regression were not significant ( $p\text{-value} > 0.05$ ), causing the these variables to be discarded for the univariate model (Table 5).

In the multiple regression model, it was noticed that total reproductive autonomy receives significant contributions from the following variables: Marital Status (married/with partner); Schooling level; Skin color/Race (white); Participation in Family Planning Groups and Has already been pregnant, all with a  $p\text{-value} < 0.20$  (Table 5).

**Table 5** – Coefficients of the simple and multiple linear regression models for predicting total reproductive autonomy in female rural workers. Petrolina, Lagoa Grande and Santa Maria da Boa Vista, PE, Brazil, 2018. (n=346)

Independent variable	* $\beta_{\text{gross}}$ ( $p_{\text{variable}}$ )	* $\beta_{\text{adjusted}}^{\dagger}$ ( $p_{\text{variable}}$ )	$p_{\text{model}}$	$r^2_{\text{adjusted}}$
Marital status (married/with partner)	- 0.031 (0.261)	0.080 (0.024)		
Schooling level (ordinal)	0.026 (0.107)	0.027 (0.091)		
Color/race (White)	0.090 (0.090)	0.116 (0.027)		
Age that started work	- 0.004 (0.356)	- 0.008 (0.086)	< 0.001	0.06
Participation in family planning group in the last 12 months (yes)	0.129 (0.011)	0.129 (0.009)		
Has already been pregnant (yes)	0.077 (0.196)	0.081 (0.176)		

\*Linear regression; †Adjusted for all the independent variables in the table.

## DISCUSSION

The complexity and difficulty of assessing reproductive autonomy among women is known. To achieve their reproductive intention, women depend on several factors, among them, the type of relationship with their partner and the sociodemographic and cultural context in which they are inserted. Each of these points will determine their level of freedom to exercise their reproductive autonomy.<sup>3,8</sup>

The women in this study showed high reproductive autonomy and, in the subscales evaluated, the greatest autonomy was observed in the “Absence of coercion” and “Decision-making” constructs and less autonomy in “Communication”. This result was similar in the research study conducted with American women using the same instrument.<sup>3</sup> Therefore, even with the peculiarity of each population, it is possible to point out that, in different geographic areas, we find women experiencing similar situations at the time of making reproductive decisions.

Regarding the “Absence of coercion” subscale and the “marital status” variable, in this study it was identified that married women presented greater reproductive autonomy for this subscale when compared to single women. This effect was not found among married women in the United States, which demonstrates that they are involved in power relations in their relationship, suggesting that the partner plays an influential role in decision-making.<sup>3</sup>

This situation makes evident the cultural existence of gender inequality in relation to the role of male dominance over women in reproductive decision-making.<sup>6</sup> In the case of the Brazilian women, the result reflects that they have collaborative participation by their partner, which can be a sign of gender equality or empowerment.

The “participation in a family planning group” variable for the “Absence of coercion” subscale, was a determining factor for the rural women in this study to exercise their reproductive autonomy. When women do not seek educational actions, there is a limitation on their reproductive autonomy.<sup>16</sup> Participation in family planning programs provides women, through knowledge, with access to contraceptive methods and the possibility of exercising their reproductive rights.<sup>17</sup>

In the “Decision-making” subscale, in relation to the sociodemographic variables tested among the female rural workers, no relationships were found with these characteristics, that is, all p-values were higher than 5%, which, interestingly, was identified in the study carried out with women in the United States in which black skin color/race and not being married presented less reproductive autonomy for this domain.<sup>3</sup>

In addition to the sociodemographic data, the age among these women also presented a relationship in this construct; however, in this research with female rural workers, children under 18 years old were not included. This reinforces what has already been pointed out, that is, that women in different contexts can display similarities or not about reproductive autonomy according to their sociodemographic characteristics.

The “Communication” subscale deserves to be highlighted in the evaluation of this study, as this construct presented less reproductive autonomy, remembering that the largest concentration of the sample involved rural women with low schooling level. Thus, it is important to propose an intervention with changes over time using the scale items themselves to increase reproductive autonomy involving this construct.

As a suggestion for intervention, we can mention actions in education on sexual and reproductive health, sexual and reproductive rights and power and gender, so that women can have information on these topics and correlate them with reproductive autonomy, which can provide greater power of reproductive decision and ability to communicate with their partner. It is of fundamental importance that, in any action aimed at increasing women’s reproductive autonomy, not only women but also men and/or couples are included.<sup>3</sup>

For the “Communication” construct and the “schooling level” variable, the women in this study with a higher schooling level presented greater reproductive autonomy. The woman’s lack of knowledge due to her low schooling makes us believe that her partner has the decision-making power over her reproductive intention, which ends up contributing to the cultural permanence of gender inequality that determines that men are superior to their partners.<sup>6</sup>

To better understand the importance of the schooling level, additional data from studies with American,<sup>3</sup> African<sup>6</sup> and Nigerian women demonstrated that the higher the schooling level, the better able they are to make reproductive decisions, which can facilitate communication with their partner.<sup>18</sup>

It is worth mentioning that communication between the couple is a crucial factor for reproductive autonomy, since women can exercise their reproductive autonomy by exposing the importance of using contraceptives. Thus, the higher a woman’s schooling level, the greater her ability to use innovative ideas, through the power of knowledge<sup>6</sup> and, consequently, greater ease for dialog with her partner.

In general, this study suggests that the total reproductive autonomy of rural women is influenced by sociodemographic characteristics, and by the “marital status” (married or with a partner), “schooling level” and “skin color/race” (white) variables. The scientific literature is emphatic in stating that black-skinned women, with low schooling and single, have limitations when making reproductive decisions that can be related to power dynamics, gender inequalities and interpretations of masculinity.<sup>19</sup>

Regarding marital status, in a research study carried out in Iceland with 641 women of childbearing age, 16% reported an episode of reproductive coercion and, among these, single women and/or without serious commitments were twice as likely to report this action on the part of their partner when compared to married women, indicating that women in relationships with less commitment are more vulnerable to not exercising their reproductive autonomy.<sup>20</sup>

In this situation, we can infer that the uncertainty in which the woman finds herself during a casual relationship gives the man greater coercive control over her<sup>21</sup> characterizing a phenomenon of gender inequality and social and cultural norms that determine that men, in order to demonstrate their masculinity, are obliged to project an image of power over women.<sup>22</sup>

Based on the schooling level of women in India<sup>23</sup> and South Africa,<sup>6</sup> these studies pointed out that, when compared to those with lower schooling, women with elementary education presented the highest percentage in asserting that their husbands were responsible for the reproductive decision. This may come to justify the finding among rural women in this study, as they presented their reproductive autonomy linked to the schooling level, that is, the lower the woman’s schooling level, the less knowledge she will have, providing less reproductive autonomy.<sup>18</sup>

Another relevant factor is race/skin color, as self-declared white-skinned rural women presented reproductive autonomy. This variable can be associated with the social and cultural consequences of a population involved in a context of racial prejudice, compromising reproductive autonomy.<sup>10</sup> Among women, black-skinned women are nearly twice as likely as white-skinned women to experiencing unwanted pregnancies.<sup>24</sup>

This result reinforces the findings verified in a research study with the objective of evaluating decision-making carried out in Pennsylvania with 60 women, of whom 36 were black-skinned, with 53% of them having suffered reproductive coercion when compared to white-skinned women (20%).<sup>10</sup>

Among the reproductive characteristics, participation in a family planning group in the last 12 months and having already been pregnant were variables that influenced the total reproductive autonomy among the women in this study. When women do not seek participation in educational activities, there is limitation on their ability to exercise their reproductive autonomy.<sup>16</sup>

This situation can be identified in a study carried out with 184 mothers in São Paulo, which reveals that 50% experienced an unplanned pregnancy, suggesting that this effect occurred due to the non-participation in educational activities. Thus, the need for educational actions aimed at

reproductive planning becomes relevant, which could minimize or avoid unwanted pregnancies.<sup>25</sup> Participation in family planning groups also promotes gender equality and greater opportunities to exercise reproductive autonomy among the women.<sup>26</sup>

As for the fact that the rural women in this study have already been pregnant, it was considered an indicator of greater reproductive autonomy; findings indicate that having already experienced a gestational moment favors the reproductive decision, due to the woman's greater maturity.<sup>27</sup> However, as most of the sample consisted of women with a low schooling level and with less participation in family planning groups, this can be related to the lack of information on family planning and reproductive rights.

Even considering the direct and/or indirect role of a woman over her body and her fertility, since she carries all the consequences that surround reproductive decision-making,<sup>5</sup> there seems to be a contradiction in reproductive autonomy and rural women in this study, as two points must be taken into account: the rural social context in which the women in this research are inserted and the social value that is given to men in the decision-making process.

When exploring the literature on rural areas, traditionally this area is still marked by cultural and social processes that grant different roles to women and men, including male exclusivity in decision-making, portraying the gender issue.<sup>28</sup>

This study presents important implications, starting with the knowledge of the concept of reproductive autonomy, primarily among the health professionals, especially in Nursing because, generally, this is the area that is closest to the women in several services aimed at Women's Health, and through its humanized care practice, can contribute to preventive and supportive actions, respecting the women's individuality and subjectivity<sup>29</sup> even in certain areas that affect the reproductive right.

In addition to that, the approach using a validated multidimensional instrument, such as the Reproductive Autonomy Scale, becomes relevant in clinical discussions among the health professionals to identify women at risk of having difficulties in exercising their reproductive autonomy. Thus, it is important that these results are discussed among the health professionals and rural working women, in an attempt to seek mechanisms that can enhance the attributes that were well evaluated and boost those that obtained low scores.

The limitation of this study was due to some situations that deserve to be highlighted. Initially, it refers to the fact that it was not possible to study children under 18 years old as, in the reference population of the studied sample, there were no workers in this age group, considering the CLT.

It is worth mentioning that analytical, longitudinal or cross-sectional studies, which worked with this age group, could include logistic regression models in their analyses to verify effect modifiers in their analyses. Thus, they could obtain more refined results in relation to the age variable for the outcome of reproductive autonomy, herein studied.

Another aspect that produced difficulty, specifically in the discussion of the results, was the fact that, with the knowledge gap on the topic addressed: "reproductive autonomy", only three studies were found that used the Reproductive Autonomy Scale, of which only one involved women in the United States,<sup>3</sup> another involved men and women<sup>30</sup> and the third, pregnant women between the ages of 15 and 24 years old, in Ghana.<sup>5</sup> This resulted in a limitation in the comparability of the results of this study with those found in the literature. It is therefore suggested that more studies be carried out in the future, in addition to allowing greater depth of studies involving a qualitative approach.

## CONCLUSION

The application of the Reproductive Autonomy Scale in this study brought important findings that suggest the imminent need to work on reproductive autonomy with socially disadvantaged women, including those with low schooling levels, among other points, to assess characteristics such as single marital status, black skin color/race, not participating in a family planning group and having already been pregnant.

In the context of reproductive autonomy among female rural workers, certain sociodemographic and reproductive characteristics must not be underestimated, including the racial issue that persists, negatively contributing to the decision-making moments.

Recommendations for assistance, health programs and education become important, in order to increase women's reproductive autonomy, among them, health education involving themes on reproductive rights and communication of the women with their partner. It is important to consider the participation of men and/or couples, promoting actions to reduce reproductive coercion.

In addition to that, interventions are suggested through the discussion of the results between the woman and the health professional, which may offer resources for women who are unable to develop their reproductive autonomy; in addition, the development of new research studies aimed at identifying changes throughout the theme in the context of intervention and effectiveness.

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## NOTES

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Study design: Dias ACS, Ferreira SL.

Data collection: Dias ACS.

Data analysis and interpretation: Dias ACS.

Discussion of the results: Dias ACS.

Writing and/or critical review of the content: Dias ACS; Ferreira SL, Gusmão MEN, Marques GCM.

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### CORRESPONDING AUTHOR

Ana Cleide da Silva Dias

anacleide.dias@univasf.edu.br

