Community Socio-Cultural Pressure in Explanation of the Non-Intention to Use Modern Contraception among the Women aged 15-49 in Union in Burundi.

Application of the Multi-level Analysis

Jean François Régis Sindayihebura ¹,², Didier Nganawara ³ and René Manirakiza ²

¹ Doctoral School of the University of Burundi
² Centre de Recherche et d’Études sur le Développement des Sociétés en Reconstruction (CREDSR) - University of Burundi, Burundi
³ Institut de Formation et de Recherche Démographiques (IFORD) - University of Yaoundé II, Cameroon

This article is distributed under the Creative Commons by-nc-nd Attribution License. Copyright © 2022 Hikari Ltd.

Abstract

**Background:** Faced with strong demographic pressure, Burundi would like to control the population growth, aiming for the fertility of 3 children per woman and an average annual increase of 2% through the annual increase in modern contraceptive use of 1.5%. However, this is 0.5%, with the intention to use contraception decreasing. **Objective:** This research examines the role of the community socio-cultural pressure on the non-intention to use modern contraception among women aged 15-49 in union. **Methods:** Data from the 2010 and 2016-2017 Demographic and Health Surveys of Burundi are analyzed using multilevel logistic regression. **Results:** Religion significantly explains the non-intention to use modern contraception of women aged 15-49 in Burundi (p=0.000<0.001). In 2010, Protestant women showed themselves 1.68 times (OR=1.676; 95% CI: 1.364-2.059) more likely not to intend to use modern contraception than Catholic women. In 2016-2017, Protestant and Adventist/Jehovah's...
Witnesses women showed themselves, respectively, 4.49 times (OR=4.485; 95% CI: 2.985-6.741) and 3.22 times (OR=3.220; 95% CI: 1.297-7.825) more likely to do not intend this than Catholics. Women of other religions were 68.1% less likely to have this non-intention than Catholics (OR=0.319; 95% CI: 0.101-1.005). **Conclusion:** These results confirm that the socio-cultural pressure of the community is among the factors of contraceptive non-intention, which is increasing in magnitude. They reveal the influence of religious beliefs that dominate socio-cultural dynamics and tend to inhibit individual initiatives of women/couples in family planning.

**Keywords:** community, socio-cultural pressure, non-intention to use modern contraception, multi-level analysis

**Introduction**

Burundi, one of the countries with an unfinished transition, is a country whose demographic transition process is encountering many obstacles. After the erosion of mortality that has occurred since the 1930s, Burundi has not yet been able to reduce the fertility rate significantly. This one is estimated at 5.5 children per woman after having been 6.4 children per woman in 2010. The average annual population growth was 2.4% per year from 1990 until the last census in 2008 [4,5]. To achieve national development goals, Burundi intends to reduce fertility to 3 children per woman and control growth to an average annual increase of 2% by 2027 [11]. With a very low contraceptive prevalence among women in union (29% in 2017), achieving these objectives presupposes an annual increase of 1.5%. However, this increase is only 0.5% [6]. Moreover, women's intentions regarding the subsequent use of contraception contrast with this expectation: from 66% in 2010, their level had declined by 13% to 53% in 2017 [4,5].

These indicators, which are against fertility control, characterize a country that needs to control its population growth for more than one reason. The indicators of food security, health sector, education, environment, climate change, etc. converge to show a situation of exceeded limits and invite to rethink reproduction [9,18].

By studying the factors of this non-intention to use modern contraception in a context that requires it, this research wonders if it is not attributable to the socio-cultural pressure of the community. Taking religion as an operational variable of the socio-cultural influences of the community, this research postulates that the latter significantly explains the non-intention of modern contraception use and that the latter varies according to religion: Protestant women are the most inclined to have non-intention to use modern contraception than those of other religions.

Religion appears to be significantly associated with women's contraceptive intentions in studies conducted in Ghana [1], Ethiopia [7,19], Kenya, and Nigeria [2]. In these
Community socio-cultural pressure in explanation of the non-intention to use modern contraception in Burundi. This study focuses on the role of religion as a factor in the socio-cultural context.

Materials and Methods

Target Population and Data Sources: Two samples, 4225 and 6990 women in union, non-users of modern contraception at the time of the Burundi Demographic and Health Surveys held in 2010 and 2016-2017, constitute the target populations for this study.

Study variables: Twenty-eight variables are used. The dependent variable concerns the intention to use. It takes the value 1 if the woman does not have this intention and 0 if the woman declares having it. The operational variable of the socio-cultural context is religion, with five values (1=Catholic; 2=Protestant; 3=Muslim; 4=Adventists/Jehovah's Witnesses; 5=Other religions). Other variables are the socio-demographic, economic, and cultural characteristics of the woman, her household, or community.

Data quality: The data quality assessment shows that the data do not have problems with high non-response rates or distortion of reported ages and the number of children ever born. The multi-collinearity test shows that the data are more suitable for analysis with VIF values everywhere less than ten and means that do not reach two.

Analysis methods and data adjustment: the analysis is done by logistic regression, given the dichotomous and qualitative nature of the dependent variable. Given that the data obey a hierarchical classification according to levels (individual, household, community), the analysis is done in a multilevel approach. This approach makes it possible to separate the influence of the community studied from that of the household and the individual level of the woman. The results concerning Wald's Chi-square and likelihood ratios, significant at the 1% level, show that the multilevel modeling is better in analyzing the influence of community pressure on contraceptive intentions.

Analysis tool: Multi-level logistic regression is performed using Stata 15.0 software.

Results

Implementing the complete models (CMs) reveals that religion remains significantly associated with the risk of non-intention to use modern contraception in 2010 and 2016-2017 (p=0.000<0.001). Indeed, Protestant women were 1.68 times (OR=1.676; 95% CI: 1.364-2.059) more likely not to use modern contraception than Catholic women in 2010. In 2016-2017, Protestant and Adventist/Jehovah's Witness women were respectively 4.49 times (OR=4.485; 95% CI: 2.985-6.741) and 3.22 times (OR=3.220; 95% CI: 1.315-7.883) more likely to do not intend this than Catholics.
Women of other religions were 70% less likely to have this non-intention than Catholics (OR=0.319; 95% CI: 0.101-1.005). It is also important to note that among the community influence variables, the region of residence remains significantly associated with the risk of contraceptive non-intention (p=0.000<0.001). Northern women were 58.8% (OR=0.431; 95% CI: 0.304-0.611) and 66.7% (OR=0.333; 95% CI: 0.193-0.573) less likely to have contraceptive non-intention than those in Central-East and other regions, in 2010 and 2016-2017, respectively (Table 1).

Table 1: The effect of women’s religion in the community and region of residence on the non-intention to use modern contraception

<table>
<thead>
<tr>
<th>Variables and values</th>
<th>2010</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OR</td>
<td>IC 95%</td>
</tr>
<tr>
<td><strong>Women’s religion in the community</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catholics</td>
<td>Ref</td>
<td>Ref</td>
</tr>
<tr>
<td>Protestants</td>
<td>1.676***</td>
<td>1.364 - 2.059</td>
</tr>
<tr>
<td>Muslims</td>
<td>1.373ns</td>
<td>0.673 - 2.802</td>
</tr>
<tr>
<td>Adventist/Jehovah's Witness</td>
<td>1.084ns</td>
<td>0.600 - 1.957</td>
</tr>
<tr>
<td>Other religions</td>
<td>1.149ns</td>
<td>0.649 - 2.033</td>
</tr>
<tr>
<td><strong>Region of residence</strong></td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>North</td>
<td>0.431***</td>
<td>0.304 - 0.611</td>
</tr>
<tr>
<td>Centre-East</td>
<td>Ref</td>
<td>Ref</td>
</tr>
<tr>
<td>West</td>
<td>1.316ns</td>
<td>0.927 - 1.868</td>
</tr>
<tr>
<td>South</td>
<td>0.922ns</td>
<td>0.654 - 1.301</td>
</tr>
<tr>
<td>Bujumbura Town</td>
<td>1.497ns</td>
<td>0.661 - 3.392</td>
</tr>
</tbody>
</table>

*** : p<0.001 ; * : p<0.05 ; ns : non-significatif

Discussion

This research aimed to show the role of the socio-cultural pressure of the community in explaining the non-intention to use the modern contraception that is increasing in magnitude among women aged 15-49 in union in Burundi. This research exploits data from the last two Demographic and Health Surveys through multi-level logistic regression by operationalizing this pressure by the woman's religion in the community. The results show that religion is, as expected, statistically associated with the risk of non-intention to use modern contraception in women aged 15-49 years in union threshold of 1% (p<0.001). Protestant women are more likely to have no intention of modern contraception than Catholics. Adventist women and Jehovah's Witnesses are also the most likely not to intend to use modern contraception at the 5% threshold (p<0.005). We thus conclude that religion is a socio-cultural factor that makes the difference in the intention of using modern contraception in Burundi. Elsewhere, results that associate religion with contraceptive intentions has been found in Ethiopia, Ghana, Kenya, and Nigeria. By studying risk and predictive factors of
intention to use contraception among women in Ghana, Ahuja and co-authors [1] found that Muslim women were 1.21 times more likely to have no intention, and Catholics were 14% less likely to do so. In Ethiopia, the study of Tiruneh and colleagues [19] showed that Muslim women, Protestants, and those of other religions were respectively 64%, 45%, and 46% less likely to intend to use contraception than Orthodox. In the rural world of the same country (Ethiopia), Lemessa and Wencheko [7] found that Muslim women were 38% less likely to want to limit pregnancies than Protestants and Orthodox.

Although these studies do not profoundly discuss the role of religion as a factor that makes community pressure on the women’s intention to use modern contraception, it is important to revisit some religious considerations that some authors argue. In their study, Tiruneh and colleagues [19] argued that Muslim women's non-intention was due to the norms and principles of their religion that encourage large families. Ahuja and co-authors [1] further found that holding fast to religious beliefs negatively affected the intention to use modern contraception in Ghana. They also do not dismiss the belief of Muslim societies in Ghana that the use of contraception indicates the infidelity of women. As society condemns it, women do not even intend to use it.

In Burundi, strong religious beliefs based on doctrines are categorically opposed to modern contraception. Indeed, the positioning of some Protestant churches against any form of contraception means that their followers are the most likely not to intend to use modern contraception. Only the Anglican Church tolerates modern contraception. Moreover, even though Catholic women are presented as the most adhesive, it is essential to note that Catholic doctrine does not accept modern contraception methods [8,13]. Women, if not couples, are thus caught up in a dynamic of obedience to the preaching of opinion leaders. If Catholic women are most likely to intend to use contraception and/or use it, this is the differential effect of female education and emancipation. However, facing the pressure of the culturally religious community, this education/emancipation is not up to the task of promoting contraception at 50% by 2025 [10].

These results support our initial hypothesis. The socio-cultural pressure of the community, materialized by religion, determines the women’s sexual and reproductive behaviors, including the intention to use modern contraception. Under the influence of religious beliefs, contraceptive intentions are bound to be dissuaded.

**Conclusion**

Given the reluctance towards modern contraception, with increasing of the levels of non-intention to use it in a constraining socio-economic context, this research aimed to verify whether it is not the socio-cultural pressure of the community that is the basis of this phenomenon. Taking religion as a characteristic of the community that materializes the socio-cultural pressure, this research analyzes data from the 2010 and
2016-2017 Burundi Demographic and Health Surveys through multi-level logistic regression. The results show that women of the Protestant religions, Adventists, and Jehovah's Witnesses are more likely to have contraceptive non-intention than Catholics. These results show that the pressure of the community, dominated by religious beliefs, remains beyond the individual initiatives of women and/or couples in the decision of family planning. Since the Catholic religion does not agree with modern contraception, the fact that Catholic women are the least likely to have the non-intention of using it reveals another socio-cultural dimension. Catholic women, mostly educated or emancipated, decide to use contraception for their perceived benefits, regardless of religion. Thus, promoting contraception while relying on massive adherence to it requires the preparation of women through education beyond the usual awareness.

**Strengths and limitations**

Thus, this research, which is not the first to take religion into account in studies of contraceptive intentions, has the originality of mobilizing it to study the influence of community’s socio-cultural pressure. It should also be noted that multi-level analysis brings added value to produce robust indicators. As limitations of this study, we can note the operationalization of the socio-cultural framework by the single variable "religion." Indeed, several people can claim the same religious obedience while they have neither the same convictions nor the same subsequent practices. Thus, for greater precision, it would be important to grasp religiosity, by which the variable relating to the proportion of women according to their religiosity would be constructed by aggregation at the community level. This analysis strategy would make it possible to compare contraceptive intentions in communities where the proportion of women of high religiosity is high compared to those where this proportion is low [3]. In addition, myths and rumors, misconceptions about modern contraception, social interactions (opinions of family members and friends), etc., are also community characteristics that are often mobilized [2]. Finally, subsequent research should not ignore that a qualitative approach captures convictions and beliefs well. Thus, further studies would consider the triangulation of quantitative and qualitative methods.

**Competing interests:** no competing interest.

**Acknowledgments.** Our gratefulness is addressed to the DHS Program for the online data availability, free of charge.
Community socio-cultural pressure in explanation of the non-intention to ...

References


Community socio-cultural pressure in explanation of the non-intention to ...


Received: September 7, 2022; Published: October 7, 2022