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RESEARCH ARTICLE

**PREVALENCE AND ASSOCIATED FACTORS OF UNWANTED PREGNANCY
AMONG WOMEN OF REPRODUCTIVE AGE (15-49 YEARS) IN RWANDA.
FINDINGS FROM RWANDA DEMOGRAPHIC AND HEALTH SURVEY 2019-2020**

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Abstract

Background: Unintended pregnancies are a significant public health concern worldwide. Eighty (38%) million of the 210 million pregnancies that take place each year over the world are unintended. More than 25% of all pregnancies in sub-Saharan Africa were unplanned, accounting for almost 10 million pregnancies annually (WHO, 2010). In Rwanda, unwanted pregnancies are a serious public health concern that had a significant impact on both mother and child health as well as wider socioeconomic effects. Twelve percent of pregnancies among women aged 15 to 49 were unintended, according to the 2019–2020 Rwanda Demographic and Health Survey (RDHS). Additionally, there is still unsafe abortion procedures, inadequate nutrition for both the mother and the unborn child, and elevated chances of maternal death all intimately linked to these pregnancies. Unintended pregnancies caused psychological distress, major financial burdens, and disruptions to women's educational and professional paths. They also restricted women's chances for empowerment and involvement in socioeconomic activities, therefore perpetuating cycles of female inequality and poverty.

Objectives: To determine the prevalence and associated factors of unwanted pregnancies among Rwandan women

Methodology: This research utilized secondary data from the 2019-2020 Rwanda Demographic and Health Survey. Data analysis used a sample of 8,374 women between the ages of 15 and 49 who had given birth within the five years prior to the survey, and the analysis included descriptive statistics, with categorical variables presented as frequencies and percentages, and continuous variables expressed as means with standard deviations.

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Relationships between associated factors and unwanted pregnancy were first explored using the chi-square test, considering a p-value below 0.05 as statistically significant. Variables that showed significance in bivariate analysis

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were further examined through multivariate logistic regression, and findings were expressed using adjusted odds ratios along with 95% confidence intervals.

Results: The findings showed that 34.7% of women aged between 15 and 49 years had an unintended pregnancy highlighting a significant public health issue. Unwanted pregnancies were almost 3.8 times more common in women aged 15–24 than in those aged 34–49. Marital status; women who had previously been married were less likely than those who had not to report an unintended pregnancy. Women from poorer households were at higher risk than those from wealthier households, and women with no education were four times more likely to report an unwanted pregnancy than those with higher education.

Conclusions: Mistimed and unwanted pregnancies continue to pose a significant public health challenges. This study found that factors such as: age, marital status, household wealth and education attainment are significantly associated with the likelihood of experiencing an unintended pregnancy. Addressing these determinants is essential to reducing the burden and improving reproductive health outcomes.

Introduction: -

Unwanted pregnancies were a major public health concern that had a big impact on the health of mothers and children (Eduard et al., 2019). People who conceived without intending to have children were said to have unwanted pregnancies (Eduard et al., 2019). These unintended births required immediate care because they constituted a serious risk to people's health and socioeconomic conditions, both individually and collectively (Muhuneh et al., 2020). Unwanted pregnancies were a significant public health concern worldwide. Eighty (38%) million of the 210 million pregnancies that take place each year over the world are unintended. More than 25% of all pregnancies in sub-Saharan Africa were unplanned, accounting for almost 10 million pregnancies annually (WHO, 2010). These pregnancies posed serious risks to the health of mothers, children, and healthcare systems.

In Rwanda, unwanted pregnancies were a serious public health concern that had a significant impact on both mother and child health as well as wider socioeconomic effects. Twelve percent of pregnancies among women aged 15 to 49 were unintended, according to the 2019–2020 Rwanda Demographic and Health Survey (RDHS). Unsafe abortion procedures, inadequate nutrition for both the mother and the unborn child, and elevated chances of maternal death were all intimately linked to these pregnancies. In addition to the immediate health effects, unintended pregnancies caused psychological distress, major financial burdens, and disruptions to women's educational and professional paths. They also restricted women's chances for empowerment and involvement in socioeconomic activities, therefore perpetuating cycles of female inequality and poverty. Despite international initiatives to lower the number of unintended pregnancies, a better knowledge of the precise causes of this problem in Rwanda was required.

This study aimed at addressing a critical knowledge gap through the examination of factors like socio-demographic, reproductive health, household, partner-related, and healthcare access factors associated with unintended births among Rwandan women. The findings are intended to inform targeted interventions and policies that address socio-cultural and economic barriers to reproductive autonomy, improve access to family planning services, and strengthen reproductive health education. The ultimate goal is to support evidence-based strategies that reduce the prevalence of unintended pregnancies and enhance the health and well-being of individuals, families, and communities in Rwanda.

Methodology: -

Study design:

This study used a cross-sectional study design, drawn from secondary data of 2019–2020 Rwanda demographic health survey (RDHS). The cross-sectional method was suitable for examining data gathered at one point in time to explore the prevalence and associated factors of unwanted pregnancy among women of reproductive age (15-49 years) in Rwanda. Findings from Rwanda Demographic and Health Survey 2019-2020. Data from the Rwanda Demographic and Health Survey (RDHS) 2019–2020, a nationally representative survey carried out by the National Institute of Statistics of Rwanda (NISR) in cooperation with the Ministry of Health, were analyzed in this study using a cross-sectional analytical technique. Comprehensive information on health and demographic indicators, such as family planning and reproductive health, was gathered by the RDHS. To guarantee uniformity and comparability of data across various areas and historical periods within Rwanda, the study employed a standardized methodology.

Setting and Intervention:

The study was conducted in Rwanda, a landlocked country in Eastern Africa, neighbor to Uganda in the north, Burundi to the south, the Democratic Republic of the Congo to the west, and Tanzania to the east. The entire country of Rwanda was included in the research's subject region. The study area included both rural and urban areas in each province of the nation. The selection of this location was crucial since it provided a thorough understanding of unintended pregnancies at the national level and included all Rwandan women of reproductive age. Understanding the prevalence and contributing factors of unintended pregnancies in diverse circumstances required an awareness of Rwanda's geographic and demographic diversity. To improve the visualization and comprehension of the study area and its significance to the research, maps showing the various areas of Rwanda were incorporated.

Study population:

The study's target population consisted of Rwandan women between the ages of 15 and 49, as recorded in the 2019–2020 Rwanda Demographic and Health Survey (RDHS) dataset.

The following were the admission and exclusion criteria:

Inclusion Criteria:

To be able to participate in this study, women would be aged between 15 and 49 years at the time of the RDHS 2019-2020 survey, being usual residents of the selected households in Rwanda at the time of the survey and participated in the individual interviews and provided complete information on pregnancy experiences, contraceptive use, and other relevant variables.

Exclusion criteria:

The following were considered as exclusion criteria to participate in this study; women aged below 15 or being above 49 years at the time of the survey, women who were visitors or temporary residents in the selected households at the time of the survey, women who did not participate in the individual interviews or did not provide complete information on the variables of interest. And women with incomplete or missing data on key variables required for the analysis, such as pregnancy experiences or contraceptive use.

Sampling technique:

The Rwanda Demographic and Health Survey (DHS) 2019-2020 employed a multi-stage stratified sampling design to ensure the representativeness of the collected data. A total of 8,374 women between the ages of 15 and 49 who had given birth within the five years prior to the survey were included in this study.

Reliability and Validity of Data Collection Instruments:

Strong quality control procedures, rigorous enumerator training, and standardized data collection tools were key features of the Rwanda Demographic and Health Survey (DHS). The dependability of responses gathered from a sizable and heterogeneous sample size was improved by the use of uniform questionnaires across various geographic locations and demographic groups. Together, these procedures improved measurement consistency and repeatability. Through careful questionnaire creation, cultural sensitivity, and pilot testing to guarantee correctness and clarity, DHS data showed content validity. The data's validity was further supported by the linkage of important health indicators with public health objectives. External validity was improved by the capacity to perform comparative analysis across nations.

Data analysis:

The data extracted from the 2019–2020 RDHS were cleaned to identify and address inconsistencies, missing values, outliers, and potential input errors. The cleaned dataset was initially coded in Microsoft Excel and subsequently the data were imported into Statistical Package for the Social Sciences version 25 for statistical analysis. Descriptive statistics were conducted to summarize key variables. Categorical variables were presented using frequencies and percentages, while continuous variables were summarized using means and SD. Bivariate analyses, including cross tabulations and chi-square tests, were performed to assess associations between contraceptive use and various socio-demographic and economic factors. A significance level of $p < 0.05$ was used to determine statistical significance. Variables that showed significant associations in the bivariate analysis were included in a multivariate logistic regression model to identify factors independently associated with contraceptive uptake, while adjusting for potential confounding variables. The strength and direction of these associations were reported using adjusted odds ratios (aOR) with corresponding 95% confidence intervals.

Ethical consideration:

Ethical approval for this study was obtained from the Mount Kenya University Rwanda Ethical Review Board. Permission to access and use secondary data was granted by NISR. The dataset utilized was fully de-identified, and no direct contact with human participants was involved. However, the original data collection adhered to strict ethical standards, including the acquisition of informed consent from all participants at the time of primary data collection. The RDHS 2019/20 employed a standardized and methodologically rigorous approach to data collection, ensuring comprehensive coverage of key demographic and health indicators. Trained interviewers performed in-person interviews.

During their visits to specific homes, these interviewers gave the questionnaire to qualified participants, especially women between the ages of 15 and 49. Following the rules and procedures established by the DHS program, the interviews were carried out in an organized fashion. To ensure that respondents could provide accurate and thorough answers, the questionnaire was translated into local languages to promote efficient communication and understanding. The RDHS used a structured, pre-tested questionnaire for collecting reliable data on sexual and reproductive wellbeing, contraceptive use, mother, child health, nutrition, and socioeconomic status. The questionnaire was carefully validated to ensure cultural sensitivity, clarity, and the ability to capture context-specific information accurately.

Presentation of Results:-**Socio-demographic and socio-economic characteristics of respondents**

Study variables	Categories	Frequency (%)
Maternal age	15-24	1531(18.27)
	25-34	4891(58.36)
	35-49	1950(23.21)
Marital status	ever married	7363(88.28)
	never married	1013(11.71)
Number of living children	<=3	5379(64.23)
	>3	2997(35.76)
Education level	no education	1141(14.52)
	Primary	5624(71.59)
	Secondary	891(11.34)
	Higher	720(8.59)
Place of residence	Urban	2245(26.8)
	Rural	6131(73.19)
Religion	No religion	63(0.80)
	Christian/Muslim	8307(99.19)
Wealth category	Poorer	3536(42.20)
	Middle	1479(17.6)
	Richer	3361(40.13)
Unmet need for family planning	No	7177(85.7)
	Yes	1197(14.3)
Respondent currently working	Yes	2481(29.6)
	No	5893(70.4)
Frequency of reading	Not at all	6688(79.9)
	Less than once a week	1175(14.0)

newspaper	At least once a week	512(6.1)
Frequency of listening to radio	Not at all	2179(26.0)
	Less than once a week	1781(21.3)
	At least once a week	4414(52.7)
Frequency of watching television	Not at all	5134(61.3)
	Less than once a week	2065(24.7)
	At least once a week	1175(14.0)
Unwanted pregnancy	Yes	2914(34.7)
	No	5460(65.3)

Table 1: Socio-demographic characteristics of respondents

The table 1 above presented offers an insightful overview of the demographic, socio-economic, and media access characteristics among women of reproductive age in this study, revealing factors associated with unwanted pregnancy. The largest age group represented is 25-34 years (58.36%), followed by women aged 35-49 years (23.21%) and 15-24 years (18.27%). This distribution suggests that the majority are in their prime reproductive years, which can influence reproductive health priorities and family planning needs. Most of the participants (88.28%) are or have been married, with only 11.71% reporting they have never been married. This finding suggests that a majority are in relationships that may necessitate access to family planning resources and services. Educational attainment also shows interesting trends. Most of the women have only a primary education (71.59%), with significantly lower proportions attaining secondary (11.34%) and higher education (8.59%). Geographically, a majority (73.19%) reside in rural areas, with only 26.8% in urban settings. The wealth distribution further supports this, with 42.2% categorized as poorer, 17.6% in the middle, and 40.13% in the richer category, indicating a significant proportion facing economic constraints that might impact their reproductive health choices.

Employment and media exposure reveal additional insights into this population’s socio-economic status and access to health information. Only 29.6% of the women are currently employed, suggesting that the majority may lack economic autonomy, which can affect their ability to make independent decisions about their reproductive health. Media exposure is similarly limited, with 79.9% not reading newspapers at all, 61.3% not watching television, and only 52.7% listening to the radio at least once a week. Unwanted pregnancy was reported by 34.7% of participants, highlighting a significant public health issue. This high prevalence underscores the need for targeted interventions that increase access to family planning and reproductive health education, particularly for young women, those with lower educational attainment, or those in poorer and rural settings.

Prevalence of unwanted pregnancy

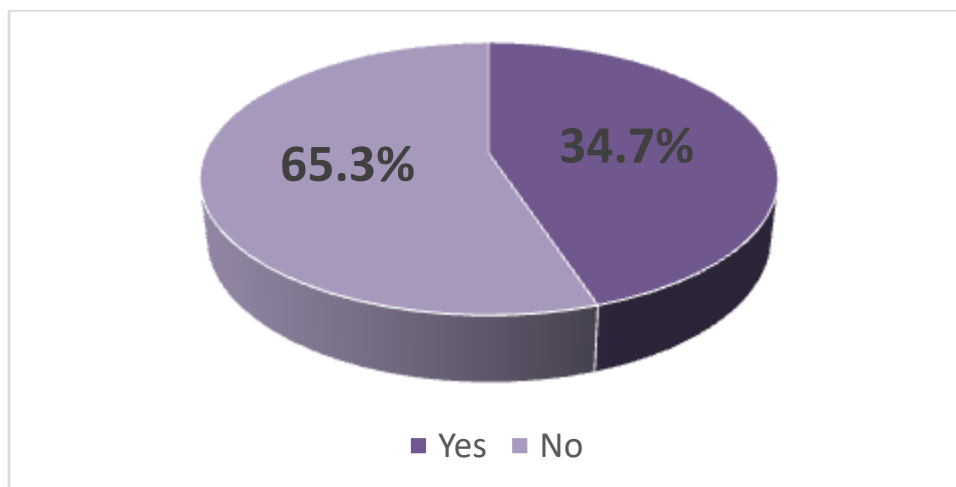


Figure 1: Prevalence and associated factors of unwanted pregnancy among women of reproductive age (15-49 years) in Rwanda. Findings from Rwanda Demographic and Health Survey 2019-2020

The figure above presents the prevalence of unwanted pregnancy among women of reproductive age (15-49) years in Rwanda using RDHS2019-2020. The findings from this study revealed that 34.7% of participants experienced an unwanted pregnancy. This indicates a major public health concern for Rwandan women in reproductive age.

Factors associated with unwanted pregnancy

Characteristics		Unwanted pregnancy		X ²	P-value
		No	Yes		
		N %	N %		
Maternal age	15-24	852 (19.1)	683 (20.13)	13.2231	<0.001
	25-34	2,628 (58.93)	1742 (51.33)		
	35-49	980 (21.97)	969 (28.54)		
Marital status	Ever married	4,306 (60.13)	2855 (39.87)	32.671	<0.001
	Never married	154 (22.22)	539 (77.78)		
Number of living children	≤3	3,409 (63.0)	1966 (37.0)	3.31	0.201
	>3	1,051 (42.0)	1428 (58.0)		
Education level	No education	598 (52.41)	543 (47.59)	23.67	<0.001
	Primary	3,228 (57.0)	2394 (43.0)		
	Secondary	490 (54.99)	401 (45.01)		
	Higher	144 (72.0)	56 (28.0)		
Place of residence	Urban	969 (56.17)	756 (43.83)	3.07	0.561
	Rural	3491 (57)	2638 (43)		
Religion	No religion	14 (32.56)	29 (67.44)	2.17	0.173
	Christian/Muslim	4,440 (57)	3365 (43)		
Wealth category	Poorest	1,955 (55)	1580 (45)	12.17	0.027
	Middle	876 (59.27)	602 (40.73)		
	Richest	1629 (57)	1212 (43)		
Respondent Currently Working	No	2,823(33.7)	208(2.5)	188.79	<0.001
	Yes	5,021(60.0)	152(1.8)		
Frequency of reading newspaper	Not at all	6,366(76.0)	171(2.0)	12.82	0.002
	Less than once a week	1023(12.2)	133(1.6)		
	At least once a week	455(5.4)	567(0.7)		
Frequency of listening to radio	Not at all	2,122(25.3)	0(0)	7.02	0.03
	Less than once a week	1,648(19.7)	114(1.4)		
	At least once a week	4,073(48.6)	246(2.9)		
Frequency of watching television	Not at all	4,926(58.8)	95(1.1)	15.4	<0.001
	Less than once a week	1,914(22.9)	114(1.4)		
	At least once a week	1,004(12.0)	152(1.8)		

Table 2: Bivariate analysis of the association between sociodemographic and unwanted pregnancy.

During bivariate analysis, chi-square test was used to test whether there is an association between sociodemographic and unwanted pregnancy. The results show that maternal age ($P < 0.001$), marital status ($P < 0.001$), educational level ($P < 0.001$), Religion ($P = 0.001$), Wealth category ($P = 0.027$), respondent currently working ($P < 0.001$), Frequency of reading newspaper ($P = 0.002$), Frequency of listening to radio ($P = 0.03$), Frequency of watching television ($P < 0.001$) were significantly associated with unwanted pregnancy. No significant association were also found for Place of residence ($P = 0.561$), N. of living children ($P = 0.201$), and Religion ($P = 0.173$)

Univariate and Multivariate Analysis for factors associated with unwanted pregnancy.

Study variables	Unwanted Pregnancy			
	COR (95%CI)	p-value	AOR (95%CI)	p-value
Maternal age				
15-24	3.507(2.17-9.63)	0.001	4.88(1.27-18.77)	0.034
25-34	0.627(0.49-6.16)	0.134	0.84(0.22-3.27)	0.171
35-49	Ref		Ref	
Marital status				
Never married	Ref		Ref	
Ever married	0.145(0.056-0.375)	<0.001	0.162(0.035-0.758)	0.021
Household Wealth index				
Poorer	1.69(0.60-4.77)	0.323	3.97(1.06-14.91)	0.041
Middle	1.902(0.311-11.626)	0.486	2.792(0.33-23.585)	0.346
Richer	Ref		Ref	
Maternal education level				
No education	4.32(1.59-6.94)	<0.001	3.77(3.22-9.71)	0.002
Primary	0.103(0.033-0.32)	<0.001	0.86(0.076-9.814)	0.905
Secondary	0.14(0.036-0.545)	0.501	0.55(0.063-4.874)	0.595
Higher	Ref		Ref	
Respondent Currently working				
Yes	Ref		Ref	
No	0.409(0.161-1.039)	0.06	0.486(0.136-1.733)	0.266
Frequency of reading newspaper				
Not at all	1.514(1.054-3.844)	0.028	1.85(0.234-14.634)	0.559
Less than once a week	1.037(0.247-4.357)	0.96	5.74(0.549-60.131)	0.145
At least once a week	Ref		Ref	
Frequency of listening to radio				
Less than once a week	1.141(0.42-3.097)	0.796	2.83(0.57-14.099)	0.203
At least once a week	Ref		Ref	
Frequency of watching television				
Not at all	0.127(0.04-0.405)	<0.001	0.47(0.069-3.217)	0.442
Less than once a week	0.394(0.13-1.194)	0.099	1.028(0.179-5.917)	0.976
At least once a week	Ref		Ref	

Table 3:Univariate and Multivariate Analysis for factors associated with unwanted pregnancy.

The table 3 presents the results of univariate and multivariate analyses examining the association between study variables and unwanted pregnancy among the women aged between 15-49 years in Rwanda. The findings indicate that in the univariate analysis, most variables showed a significant association with unwanted pregnancy. Women aged between 15-24 years (COR: 3.507, 95% CI: 2.17-9.63) were 3.5 times more likely to have unwanted pregnancy compared to those aged between 34-49 years. The study also revealed that the women who ever married (COR: 0.145, 95% CI: 0.056-0.375) were less likely to have unwanted pregnancy compared to those who never been married. Furthermore, the women who have no education and Primary education level (COR: 4.32, 95% CI: 1.59-6.94), (COR: 0.103, 95% CI: 0.033-0.32) were 4 times more likely to have unwanted pregnancy compared to those with higher educational level respectively. Moreover, the women who never read the newspaper at all (COR: 1.514, 95% CI: 1.054-3.844) were 1.5 times more likely to have unwanted pregnancy compared to those who used to read newspaper at least once a week. In contrast to the women who do not watch television at all (COR: 0.127, 95% CI:

0.04-0.405) were less likely to have unwanted pregnancy compared to those who watch television at least once a week.

During the multivariate analysis, some variables remained to be significant associations with unwanted pregnancy. The study resulted that, women aged between 15-24 years (AOR: 4.88, 95% CI: 1.27-18.77) were 3.8 times more likely to have unwanted pregnancy compared to those aged between 34-49 years. Furthermore, the research proved that the women who ever married (AOR: 0.162, 95% CI: 0.035-0.758) were less likely to have unwanted pregnancy compared to those who never been married. The study also revealed that, the women from poor household wealth index (AOR: 3.97, 95% CI: 1.06-14.91) were 4 times more likely to have unwanted pregnancy compared to those from rich household wealth index. The research resulted that, the women who have no education (COR: 3.77, 95% CI: 3.22-9.71) were 4 times more likely to have unwanted pregnancy compared to those with higher educational level. Moreover, the women who were not currently working (AOR: 4.86, 95% CI: 1.36-7.33) were 5 times more likely to have unwanted pregnancy compared to those who were currently working.

Summary of Findings: -

The majority of study participants are in their peak reproductive years (ages 25–34) and are either married or have been married in the past, according to demographic and socioeconomic criteria linked to undesired pregnancy. Few people complete higher education, and the majority only complete primary school, which may influence family planning understanding and decision-making. The majority are rural dwellers who struggle financially, as evidenced by the high percentage of people in the worse wealth index. Low employment rates may have an effect on women's financial independence, and little media consumption—especially on television and newspapers—reduces access to information about reproductive health. Unwanted pregnancies were reported by a large percentage of women (34.7%), indicating a serious public health issue. These results highlight the need for better access to family planning services and reproductive health education, particularly for young women, those with less education, and those living in impoverished, rural locations.

Prevalence stood at 34.7% of women in this age bracket were unintentionally pregnant. This high incidence indicates that most Rwandan moms adhere closely to advised family planning procedures.

Unwanted pregnancies were 3.5 times more common among younger women (15–24 years old) than among those aged 34–49, and they were less common among women who had never married than among those who had never married. Women with just primary education or no formal education were up to four times more likely to become pregnant unintentionally than those with higher education, indicating that lower education levels were also a risk factor.

Lack of media exposure was also linked to a higher risk of an unintended pregnancy, especially for people who did not routinely watch television or read newspapers. It was shown by multivariate analysis that some of these relationships were still significant. Women from lower-income homes were almost four times more likely than those from wealthier households to become pregnant unintentionally, and younger women were still at higher risk. Another important factor was employment status, with women who did not work being at greater risk. These results highlight how age, marital status, money, education, and work all affect the prevalence of unintended pregnancies in Rwanda.

Discussion: -

The findings from this research on unwanted pregnancy among Rwandan women of reproductive age revealed that 34.7% of participants experienced an unwanted pregnancy. Various factors were found to be associated with this outcome. For instance, women aged 15–24 years had a notably higher likelihood (AOR: 4.88, 95% CI: 1.27-18.77) of experiencing an unwanted pregnancy compared to women aged 34–49 years. This trend aligns with studies from other regions, where younger age is similarly associated with a higher risk of unintended pregnancy. For example, a study by Berhe et al. (2023) at Jimma University Medical Center in Ethiopia found that women under 25 were also more susceptible to unintended pregnancies, largely due to socio-economic constraints and limited contraceptive access. The relationship between marital status and unwanted pregnancy found in this study, where women who had ever been married were less likely (AOR: 0.162, 95% CI: 0.035-0.758) to experience unintended pregnancy, echoes findings from a study in Tanzania by Charles and Kazaura (2016). This Tanzanian study demonstrated a lower prevalence of unintended pregnancies among married women, possibly due to increased access to family planning resources in marital settings and cultural expectations around contraceptive use within marriage. The study's results

reinforce the notion that marital status significantly influences access to and utilization of reproductive health services.

The wealth index significantly influences the likelihood of experiencing unwanted pregnancies. Women from economically disadvantaged households are nearly four times more likely to face unintended pregnancies compared to those from wealthier backgrounds (AOR: 3.97, 95% CI: 1.06-14.91). This finding aligns with previous research, which consistently highlights economic status as a key determinant of reproductive health outcomes. For instance, a study conducted in sub-Saharan Africa found that women in lower wealth quintiles had a higher risk of unintended pregnancies due to limited access to contraceptive methods and reproductive health services (Smith et al., 2021). Similarly, research in South Asia indicated that financial constraints often lead to inconsistent contraceptive use, increasing the likelihood of unintended pregnancies (Khan et al., 2020).

Educational attainment also emerged as a critical factor, with women who had no formal education showing a 4 times more likelihood to have unwanted pregnancies compared to those with higher education levels (AOR: 3.77, 95% CI: 3.22-9.71). This finding is consistent with Gebremedhin et al. (2022), who documented the same pattern in Ethiopian health facilities. Women with higher education levels were more likely to avoid unintended pregnancies, potentially due to better awareness and access to contraceptive information. These study highlight the education as a non-protective factor, where educational attainment equips women with knowledge and autonomy to make informed reproductive choices.

Moreover, exposure to media played a significant role in this research. Women who read newspapers or watched television were less likely to report unintended pregnancies. This trend aligns with findings from other studies, such as Ali et al. (2022) in Sudan, where women exposed to media were better informed about contraceptive options and reproductive health. This exposure enables women to understand and access family planning resources, underlining media as a powerful tool for health education. Finally, the study found that women from poorer households and those not currently working were at a higher risk of experiencing unintended pregnancies. This relationship has been similarly documented in research from low-resource settings globally, highlighting economic vulnerability as a factor in unintended pregnancies. These findings collectively underscore the importance of socioeconomic support, educational initiatives, and accessible reproductive health services to reduce unintended pregnancies in Rwanda and similar contexts.

Conclusion: -

Overall, considering the magnitude of 34.7% prevalence of unwanted pregnancy and their associated factors, findings underline the importance of comprehensive reproductive health education, improved media engagement, and economic empowerment initiatives for women, particularly for younger women and those in rural or impoverished settings. Interventions that focus on enhancing access to family planning information, fostering media use, and supporting economic opportunities could significantly reduce unwanted pregnancies and improve reproductive health outcomes among women in Rwanda. This research provides a critical foundation for policymakers to develop targeted programs addressing these identified risk factors.

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The authors declare that there are no financial or personal relationships that could have inappropriately influenced the content or findings of this article.

Author Contributions:

The corresponding author is DeogratiasMunyengangowho led the study design, conducted the literature review, managed the acquisition and analysis of secondary data, interpreted the findings, and wrote the manuscript for publication. While DoctorAmanuelKidaneAndegiorgishon other hand provided critical supervision throughout the research process, supported the refinement of the literature review, and contributed to ensuring that the data analysis and interpretation were aligned with the study's objectives and the context of the original data collection.

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