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Differentials in Ever Use of Contraceptive Methods among the Danuwar Community of Lalitpur, Nepal

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Abstract

Nepal is yet to experience much disparity between the indigenous people of Nepal, which is even although national development is shifting to family planning. The primary research is to identify the demographic and socio-economic factors with respect to the ever-use of the contraception method. This research demonstrates the differences in the use of contraceptive methods in the ever-use amongst Danuwar women of Godawari Municipality-8 (Dukuchap), Lalitpur. A cross-sectional survey of 289 women carried out in 2025 was conducted to assess the relationship between the use of contraception in the past and the variables, including age, education, employment, knowledge, son preference, income, migration, and intentions to have children. 78.3 percent of the women had ever used contraception. The use of contraceptives rose with age (58.8% 15-24 years, 76.3% in 25-34 years, and 85.3% in 35-49 years; chi2=5.92; p=0.052). Knowledge of modern methods had a very high association with the use (83.8% vs. 15.4; 2=32.86; p 0.001). Son preference (χ 2 =9.06, p=0.003), perceived government policy support (χ 2=7.60, p 0.006), and fertility intentions (2=6.89, p=0.009) were significantly predicted. The impact of income was nearly strong. The study is important to the current body of knowledge in that the author offers community-level evidence that, despite an effect of socio-economic status on contraceptive use, awareness, gender norms, fertility intentions, and policy support are dominant influences in influencing contraceptive use among an understudied indigenous population in Nepal. The use of contraception mostly depends on awareness, age, gender norms, fertility intentions, and even support through policies. Culturally sensitive gender-responsive interventions are needed to aid in the realization of FP 2030 and SDG 3.7 goals in marginalized communities.

Keywords: *Contraceptive use, Danuwar, son preference, policy support, fertility intentions*

Introduction

Contraceptive usage is a critical component of reproductive health that enables women and couples to make prudent decisions on the timing and interval of childbirth and to identify the degree of fertility, maternal health, and socio-economic growth (Cleland et al., 2019; United Nations, 2023). The family planning process is not a recent one in Nepal, and the process of

formalizing the family planning services in the nation started with the establishment of the Family Planning Association of Nepal in 1959 (Ministry of Health and Population [MoHP], 2023).

Even though a lot has been done to make the services associated with the ways of using contraceptives more accessible, the significant disparities in accessibility between the caste, ethnic, geographic, and socio-economic groups still persist. Cultural beliefs are also one of the main factors influencing the inequalities, as well as patriarchal structures and unequal access to reproductive health services (Shrestha and Ghimire, 2021; Pandey et al., 2022). According to the estimates provided in the Nepal Demographic and Health Survey 2022 (NDHS), forty-three percent of married women are currently using a modern birth control method, which could be sterilization, intrauterine devices (IUDs), implants, injectables, oral pills, condoms, and emergency contraception. Nevertheless, 24 percent of the women still do not have a satisfied family planning need (MoHP, New ERA, and ICF, 2022).

These national statistics hide a lot of sub-national differences, as among the indigenous people, there is an increased level of low access to information and services. The peri-urban and rural regions, where the lack of awareness and economic status are not the only factors influencing the reproductive behaviour, but also ingrained cultural beliefs, the preference for sons, and the impossibility to make independent decisions among women (Gurung, 2020; Subedi and Upreti, 2021). The family-wide discourse about the birth control decisions of several native communities is generally prevalent, with the husbands and other family members becoming the primary decision-makers regarding the topic of birth control (Tamang et al., 2022). Young and newly married women are also excluded from family planning services due to the taboos on the social discussion of contraception (Karki & Maharjan, 2019). These barriers, in particular, indicate the need to have culturally sensitive interventions that would make the national family planning commitments, such as the National Family Planning Costed Implementation Plan and FP2030 targets, applicable to the community realities (Government of Nepal, 2024; FP2030, 2023).

It is concluded that this existing literature, age, education, parity, employment, income, and ideational determinants would include gender norms, fertility preference, and migration exposure in determining the determinants of contraceptive use (Pokharel et al., 2021; KC et al., 2024; Dawadi et al., 2024). Young women and those who do not have a long-lasting marriage prefer waiting to use contraceptives later due to the social pressure to have a young child (Khan et al., 2020). One of the main barriers that do not go away in the patriarchal society is the son preference, where couples fail to exercise birth control until they have the desired number of sons (Acharya et al., 2019). More so, migration and urban exposure can re-determine the attitude of reproduction by introducing new norms and expanding the availability of health information (Chhetri, 2023). This study incarceration both adoption and discontinuation during the life course, as opposed to current use, and thus offers a more in-depth picture of contraceptive behaviour in Danuwar women. The demographic, socio-economic, and ideational determinants of ever use of contraception in indigenous women in Lalitpur are of particular concern to the study to fill the evidence gap on the indigenous population and to inform culturally sensitive reproductive health interventions that would meet the SDG 3.7 and FP2030 commitments in Nepal.

Methods

The study design was a descriptive quantitative design that is applicable in cases where the objectives are to measure the characteristics of the population and determine statistical associations between the variables. A community-based field survey of the Danuwar community in Godawari Municipality-8, Lalitpur, which is an indigenous group

underrepresented in studies on reproductive health, was conducted in 2025 and also exhibits certain socio-cultural activities of its own. Sampling procedure and respondents: A census that was utilised in the area of study was employed to choose 289 women aged 15-49 years. The women who were to be part of the study were aged 15-49 years; they should have at least six months of staying in the area of study and should have given their informed consent to participate. The women were not counted in case they had a severe illness that prevented them from participating, or when they were mere visitors or temporary residents who could not qualify according to the residence requirement. Variable measurement: The first outcome variable, which is ever use contraceptive methods is indicates whether a respondent has ever used any form of modern or traditional method at any instance of life. The answers were given code 1=ever used and 0=never used. Data collection instruments and methods: A questionnaire schedule was used in order to gather data through the assistance of an interview. Demographic, socio-economic, and ideational variables such as age, education, employment, religion, household income, son preference, experience of migration, and knowledge regarding family planning methods were also questions in the instrument. Other ethical principles that were accomplished included informed consent, voluntary participation, privacy and confidentiality. Data analysis: The descriptive statistics were used to summarise the characteristics of respondents. Bivariate analysis was conducted through the Pearson chi-square test to check the relationship between explanatory variables and the ever use of contraception. The level of statistical significance was determined at the level of 95 per cent confidence ($p<0.05$). The result of such an analysis allowed the study to quantify the strength and orientation of relations between demographic and socio-economic that was a sound empirical background to understand the actions of fertility and family planning.

Results and Discussion

This study established Pearson chi-square tests on bivariate relationships between ever using contraception and selected demographic, socio-economic and ideational variables. The disparities in usage were determined by factors of age, employment, knowledge, IEC exposure, education, son preference, religion, policy support, disaster exposure, migration, income, and fertility intentions.

Age group: The percentage of women using contraceptives rose gradually with age, with 58.8 per cent among the women aged 15-24 to 76.3 percent among women aged 25-34 and 85.3 percent among women aged 35-49. This trend indicates that the longer the marriage duration and reproductive experience older women have, the more likely they are to have used contraception, which indicates a significant association between age and ever use.

Table 1
Age-wise distribution of ever used any contraceptive methods

	No		Yes		Total	
Age Group	%	n	%	n	%	n
15-24	41.2	13	58.8	18	10.6	31
25-34	23.7	32	76.3	104	47.2	136
35-49	14.7	18	85.3	104	42.2	122
Total	21.7	63	78.3	226	100.0	289

Pearson Chi2=5.9213, df=2, p=0.052

Employed: There was no significant difference between the use of contraceptives by employed and non-employed women (76.9 vs. 78.4%), and no significant relationship was found between contraception and employment. This shows that there is no employment status that affects contraceptive behaviour (Table 2).

Table 2
Distribution of employed ever used any contraceptive methods

	No		Yes		Total	
Employed	%	n	%	N	%	n
No	21.6	57	78.4	208	91.9	266
Yes	23.1	5	76.9	18	8.1	23
Total	21.7	63	78.3	226	100.0	289

Pearson Chi1=0. 0.0149, df=1, p= 0.903

Aware of modern contraceptives: There was a very strong statistically significant relationship between knowledge of modern contraceptive methods and use: 83.8 per cent of the knowledgeable women had ever used contraception, whereas only 15.4 per cent of the unaware women did. The very important chi-square value proves awareness to be one of the most powerful factors of contraceptive behaviour (Table 3).

Table 3
Distribution of awareness of modern contraceptive methods ever used

	No		Yes		Total	
Aware of modern contraceptives	%	n	%	n	%	n
No	84.6	20	15.4	4	8.1	23
Yes	16.2	43	83.8	223	91.9	266
Total	21.7	63	78.3	226	100.0	289

Pearson Chi1=32.8620, df=1, p= 0.000

Participated in workshops: It indicates that there was an increase in contraceptive use, which was not statistically significant, between Women exposed to workshops (82.6% vs. 72.5%). This implies that there is no significant or consistent effect of being involved in awareness programs in terms of using contraceptives (Table 4).

Table 4
Distribution of participants in workshops ever used any contraceptive methods.

	No		Yes		Total	
Participated in workshops	%	N	%	n	%	n
No	27.5	34	72.5	90		
Yes	17.4	29	82.6	136		
Total	21.7	63	78.3	226	100.0	289

Pearson Chi1=2.3852, df=1, p= 0.122

Education: Table 5 indicates that education did not display any significant difference in the use of contraceptives among educated women and illiterate women: 78.3 per cent and 75.0 per cent, respectively. The chi-square value (p = 0.873) is non-significant, which means that education is not significantly affecting the use of contraceptives in this society.

Table 5
The distribution of education has never used any contraceptive methods

	No		Yes		Total	
Education	%	N	%	N	%	n
No	25.0	2	75.0	5	2.5	7
Yes	21.7	61	78.3	221	97.5	282
Total	21.7	63	78.3	226	100.0	289

Pearson Chi1= 0.0256, df=1, p= 0.

Preference for sons: Table 6 states that women have a statistically significant relationship between son preference and use of contraceptive methods at one time or another. Of the respondents who did not show a preference for sons, 89.7 percent said that they were using contraceptives, compared with 69.9 percent who preferred sons. The chi-square (χ^2 = 9.0635; 2=1; p=0.003) value shows that the correlation between birth control and gender preference is very strong.

Table 6
Distribution of preference for sons ever used any contraceptive methods

	No		Yes		Total	
Preference for sons	%	n	%	n	%	n
No	10.3	13	89.7	110	42.2	122
Yes	30.1	50	69.9	117	57.8	167
Total	21.7	63	78.3	226	100.0	289

Pearson Chi1=9.0635, df=1, p= 0.003

Religion influence: Table 7 shows that the Contraceptive use was marginally higher in women with no religious impact (80.6% vs.74.1%), but the variation was not statistically significant (p =0.341). This shows that religion has no significant influence on birth control.

Table 7
Distribution of religion influence ever used any contraceptive methods

	No		Yes		Total	
Religion influence	%	N	%	n	%	n
No	19.4	36	80.6	149	64.0	185
Yes	25.9	27	74.1	77	36.0	104
Total	21.7	63	78.3	226	100.0	289

Pearson Chi1=0.9058, df=1, p= 0.341

Government policy: Table 8 reveals that the use of contraceptives was significantly higher among those women who felt that the government policies were supportive (82.8% vs. 60.6%). The important chi-square value (0.006) demonstrates that the government outreach, services, and subsidies have a strong association and, therefore, positively impact the contraceptive uptake.

Table 8
Distribution of government ever used any contraceptive methods

	No		Yes		Total	
Government policy	%	n	%	n	%	n
No	39.4	23	60.6	36	20.5	59
Yes	17.2	39	82.8	190	79.5	230
Total	21.7	63	78.3	226	100.0	289

Pearson Chi1=7.6045, df=1, p= 0.006

Natural disasters: Table 9 indicates that 81.4 per cent of women residing in disaster-free zones practised contraceptive use, in contrast to only 72.9 per cent of women who had been through the misfortune. Although the rate of contraceptive use among women who had gone through disasters was slightly lower, the chi-square test (χ^2=1.5841; df =1; p=0.208) concludes that the relationship is not statistically significant.

Table 9
Distribution of natural disasters ever used any contraceptive methods

	No		Yes		Total	
Natural disasters	%	n	%	n	%	n
No	18.6	34	81.4	149	63.4	183
Yes	27.1	29	72.9	77	36.6	106
Total	21.7	63	78.3	226	100.0	289

Pearson Chi1=1.5841, df=1, p= 0.208

Migration and impact: Table 10 shows that among women who were respondents and believed that migration directly affected family size, 65.1 percent stated using contraceptives, while the percentage among women who thought that migration had no impact at all was 85.8 percent. The chi-square test (χ^2 =18.1585; df =1; p =0.000) indicates that the views on migration and contraceptive practices are interrelated.

Table 10
Distribution of migration and its impact on family size

	No		Yes		Total	
Migration an impact	%	n	%	n	%	n
Don't know	80.0	7	20.0	2	3.1	9
No	14.2	29	85.8	174	70.2	203
Yes	34.9	27	65.1	50	26.7	77
Total	21.7	63	78.3	226	100.0	289

Pearson Chi1=18.1585, df=1, p= 0.000

External migration: Table 11 reveals that 80.0 percent of women living in non-migrant households claimed the use of contraceptives, in contrast to 62.5 percent of women whose households had moved outside of the country. Despite the lower percentage of women using contraceptives in families with migration exposure, the chi-square value (χ^2 = 2.5939; df=1; p =0.107) indicates that the connection is not significant from a statistical point of view.

Table 11
Distribution of external migration has ever used any contraceptive methods

	No		Yes		Total	
External migration	%	n	%	n	%	n
No	20.0	52	80.0	208	90.1	260
Yes	37.5	11	62.5	18	9.9	29
Total	21.7	63	78.3	226	100.0	289

Pearson Chi1=2.5939, df=1, p=0.107

Family's monthly income: Table 12 shows a trend of increasing contraceptive use with an increase in income, where 84.6 per cent of women in the households earning above NPR 15,001 were users of contraceptives compared to just 72.3 per cent in the households with less income. The chi-square test (χ^2=3.591; df =1; p =0.058) underlines the existence of a nearly significant relationship, thereby implying economic status as one of the factors affecting the access and use of family planning services.

Table 12
The distribution of family's monthly income has never used any contraceptive.

	No		Yes		Total	
Family's monthly income	%	n	%	n	%	n
<15001	27.7	41	72.3	108	51.6	149
>15001	15.4	22	84.6	118	48.4	140
Total	21.7	63	78.3	226	100.0	289

Pearson Chi1=3.591, df=1, p= 0.058

Income sufficient: Table 13 denotes findings; it is evident that 80.3 percent of respondents who replied that their family income was not sufficient had used contraceptives, as compared to 63.2 percent among those with sufficient income. While contraceptive use appears to be higher in economically constrained families, the chi-square test (χ^2 =2.8882; df=1; p =0.089) shows that the association is not statistically significant.

Table 13
Distribution of income sufficient for ever using any contraceptive method

	No		Yes		Total	
Income sufficient	%	n	%	N	%	n
No	19.7	50	80.3	205	88.2	255
Yes	36.8	13	63.2	22	11.8	34
Total	21.7	63	78.3	226	100.0	289

Pearson Chi1=2.8882, df=1, p=0.089

Plans to have a child: Table 14 shows that out of the women who never planned to have any more children, 82.7 per cent utilised contraceptive protection, while 61.8 per cent of women who intended to have a child still utilised contraceptive protection. The value of chi-square (χ^2 =6.8941; df =1; p =0.009) shows that fertility intention significantly influences the use of contraceptives.

Table 14
The distribution of plans to have a child has ever used any contraceptive methods.

	No		Yes		Total	
Employed	%	n	%	n	%	n
15-24	17.3	39	82.7	188	78.9	228
25-34	38.2	23	61.8	38	21.1	61
Total	21.7	63	78.3	226	100.0	289

Pearson Chi1=6.8941, df=1, p=0.009

This study establishes that the age, knowledge, gender norms, fertility intentions and the perceived policy support exert the strongest effect. These were not influenced much by socio-economic factors like work, religion, and education, and this shows that structural empowerment is not the sole determinant of reproductive decisions. Preference for sons and lack of autonomy continued to be the significant obstacles, and reproductive intentions and migration also influenced the choices. Only a weak positive impact was indicated on the income. The results indicate that successful family planning interventions with vulnerable populations need not only to offer various services but also to address marginalized communities culturally competently, empowering gender roles, and providing powerful and enduring policy advocacy.

Discussion

This study shows that demographic, socio-economic and ideational variables that determine the ever-use of contraceptive methods among women study community. This high positive correlation between age and contraceptive use concurred with a wide body of demographic literature that contraceptive uptake is positively correlated with marital duration, parity and increased exposure to reproductive health services (Khan et al., 2020; MoHP et al., 2022). The young women also report a low uptake, which is always attributed to the early childbearing expectations, less autonomy and lower bargaining power within the households, and has also been observed in South Asian contexts (Upadhyay & Karasek, 2019).

The awareness of contemporary methods of contraception became one of the most powerful predictors of ever use, which is aligned with evidence in the rest of the world, where awareness and the right information have proven to play a major role in improving the adoption of family planning (Cleland et al., 2019; Poudel & Subedi, 2022). Participation in workshops had a positive trend but was not statistically significant- probably due to the limited coverage

or quality of IECs activities among indigenous communities. The IEC is not enough, but should be culturally adapted and supported by the availability of services (Pokharel et al., 2021).

The preference for sons was significantly inversely correlated with contraceptive use, which once again confirms the role of patriarchal norms and gendered fertility standards in Nepal. The study is constantly documented with delayed access to contraceptives until the families reach their preferred goal of sons (Acharya et al., 2019; Dawadi et al., 2024). This cultural determinant is still a significant obstacle on the path to achieving equal reproductive decisions.

It was also revealed that the government policy support was effective in relation to contraceptive use, and this suggests the role of service availability, subsidies and community outreach. The Nepal FP (202-2030) initiatives demonstrate that contraceptives among the disadvantaged groups can be boosted by a significant margin by involving the local health facilities, providing free contraceptives, and mobilising communities (Government of Nepal, 2024; FP2030, 2023). This observation implies that empowering the local health system and confidence in government initiatives are essential in native communities.

The factors of socio-economic education, employment, income, and perceived income adequacy were not important predictors, reflecting findings that structural empowerment is not necessarily associated with reproductive autonomy in culturally inflexible environments (Shrestha 7Ghimire, 2021; Subedi &Upreti, 2021). This low-income effect correlates with the literature that indicates that even poor families resort to contraception under the influence of economic factors and the number of children they want to have (Sedgh et al., 2016).

The perception of migration was also strongly correlated with the use of contraceptives, which indicates that the migration of households changes the preferences for fertility, exposure to new norms, and decision-making processes. This is consistent with the literature that has shown that migration is changing reproductive intentions by altering economic ambitions and exposure to urban living (Chhetri, 2023; Gubhaju, 2019).

The findings in general do support the idea that information, gender norms, fertility intentions and policy environment are more decisive factors than socio-economic status alone. In the case of indigenous and marginalised people, effective family planning programs should go further than providing the service to the community to consider cultural norms, reinforce the role of community outreach and encourage gender-equitable decision-making. Interventions designed to suit the needs of the people, with the inclusion of accurate information, respectful interaction with the community norms and provision of accessible services, are the key to enhancing contraceptive behaviour and progressive achievement of FP2030 and SDG 3.7 targets in Nepal.

Conclusion

This paper has revealed that the factors that have significant effects on the use of contraceptives are age, awareness of modern methods, fertility intentions, gender perceptions and the perceived government support. Women who had ever used a method were significantly older and were more likely to be well acquainted with modern contraceptives, which underpins the importance of exposure during the life course and the strength of information. Preference for sons and their de-meriting gender roles are major challenges, and socio-economic factors such as education, employment and religion did not contribute much. These findings make it clear that it is not structural resources that induce contraceptive behaviour of the marginalised groups, but rather ideational and cultural processes that should be in the limelight. It is therefore necessary to improve the culturally sensitive and gender-responsive approaches to improve reproductive autonomy and meet the FP2030 and SDG 3.7 objectives in Nepal.

Recommendations

The culturally sensitive awareness activities, gender-transformative to curb son preference, and enhanced service delivery by the community are necessary to enhance the use of contraceptives within the indigenous populations. The constant government funding and targeted outreach can also improve equitable access. These approaches taken collectively facilitate informed reproductive decision-making and support the national and international agendas on family planning.

Author contributions

Bijaya Mani Devkota and Pradeep Kumar Bohara contributed to the study's conception, data extraction, data analysis, and drafted the manuscript. The manuscript was critically revised by Bijaya Mani Devkota to ensure its quality and accuracy. Both authors agreed to submit the article in its current form.

Research approval

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Data availability statement

The data used in this study were duly authorized by the University Grants Commission (UGC). The dataset will be made available upon reasonable request through the UGC after the publication of this report.

Conflict of interest

The authors declare no conflict of interest related to this study.

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