



THE RELATIONSHIP BETWEEN SOCIO-ECONOMIC STATUS AND THE USE OF SUBDERMAL CONTRACEPTIVE IMPLANTS (AKBK) AT BIAK MULI COMMUNITY HEALTH CENTER, BAMBEL SUB-DISTRICT, SOUTHEAST ACEH DISTRICT IN 2024

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ABSTRACT

Background: Population growth in Indonesia remains high, partly due to the low use of long-term contraceptive methods such as subdermal contraceptive implants (AKBK). National data shows only 8.5% of reproductive-age couples use AKBK, and in North Sumatra, the rate is 12.05%. A preliminary survey at Biak Muli Health Center in 2024 found that economic limitations and lack of knowledge contributed to low AKBK usage. This study aims to examine the relationship between socio-economic status and AKBK use. **Objective:** This study aimed to determine the relationship between socio-economic status and the use of subdermal contraceptive implants (AKBK) at Biak Muli Community Health Center, Bambel Sub-district, Southeast Aceh District in 2024. **Methods:** An observational analytic study using a cross-sectional design was conducted. The population consisted of 39 reproductive-aged women who visited the Biak Muli Community Health Center. Total sampling was employed. Socio-economic status was measured based on income relative to the regional minimum wage. The Chi-Square test was used to assess the relationship between socio-economic status and AKBK use. **Results:** The majority of respondents had low socio-economic status (53.8%) and did not use AKBK (61.5%). The statistical test revealed a significant relationship between socio-economic status and the use of AKBK ($p = 0.007$). **Conclusion:** There is a significant association between socio-economic status and the use of subdermal contraceptive implants. Women with higher economic status are more likely to use AKBK.

Keywords: Socio-Economic Status, Contraceptive Implant, Family Palnning

Introduction

Population growth continues to challenge public health and economic development. Despite family planning efforts, Indonesia still experiences a relatively low uptake of long-term contraceptive methods like subdermal implants (AKBK). Data from WHO and BKKBN indicate declining use of AKBK, with only 8.5% adoption nationally in 2020.

The situation in Southeast Aceh mirrors this trend.

The world's population in 2019 reached 7.7 billion people. This figure grew by 1.08% from 2018 which amounted to 7.6 billion people. Over the past ten years, the world's population has increased steadily with a growth range of 1-1.2% per year. It

is estimated that in 2050 in the world the population growth rate will be 0.53%. Based on regions, Asia still leads as the region with the largest population. The number of Asian population is recorded as 4.6 billion people. Africa and Europe followed with 1.3 billion and 747.2 million people, respectively. Meanwhile, the countries with the largest population are China with 1.43 billion people, India with 1.37 billion people, the United States (US) with 329 million people, and Indonesia with 270.6 million people (Jayani, Dwi Hadya; Widowati, no date).

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World Health Organization (WHO) data in 2020 shows that the percentage of contraceptive use of female surgical methods (MOW) is 24%, male surgical methods (MOP) is 21%, condoms are 21%, injections are 8%, pills are 16%, and IUD is 17% while implants are 2% and other contraceptives are 10% (World Health Organization, 2020).

From Indonesia's health profile data in 2020, the use of AKBK has decreased where in Indonesia by 8.5% and North Sumatra by 12.05% of this figure is very clearly impacted by the high population growth in Indonesia (Juliana *et al.*, 2024).

According to BKKBN in 2020, the number of couples of childbearing age in Indonesia is 39.6 million, while the number of PUS active as family planning

participants is 31.5 million people and the use of contraception under the skin (AKBK) is 8.5%, judging from this figure, there are still many couples of childbearing age who do not use contraceptives (BKKBN, 2020). Based on data from the North Sumatra central statistics agency in 2020, the number of couples of childbearing age who are active as family planning participants amounted to 1.7 million people, while those who use AKBK are 12.05% of that figure. For the city of Medan itself, there are 298,962 PUS and 11.1% of AKBK users (BPS SUMUT, 2020).

Research Method

This study used an analytical observational method with a cross-sectional design. The population was all reproductive-age women visiting Biak Muli Health Center in 2024. The sample comprised all 39 eligible respondents using total sampling. Independent variable: Socio-economic status (measured against minimum regional wage). Dependent variable: Use of subdermal contraceptive implant (AKBK). Data Collection: Primary data were collected using a structured questionnaire. Secondary data were sourced from literature and health center records. Data Analysis: Univariate analysis described the frequency distribution of variables. Bivariate analysis using the Chi-square test determined the relationship between socio-economic status and AKBK use, with significance set at $p < 0.05$.

Result

A total of 39 reproductive-age women participated in the study. The univariate analysis showed that most respondents had a low socioeconomic status (53.8%). In terms of contraceptive use, 61.5% of the women did not use

subdermal contraceptives, while 38.5% did. The bivariate analysis revealed that most of those who used AKBK had a high socioeconomic status, while the majority of non-users had a low socioeconomic

background. The chi-square test showed a significant relationship between socioeconomic status and the use of AKBK, with a p-value of 0.007 ($p < 0.05$).

Table 1. Socio-Economic Relations with the Use of AKBK at the Biak Muli Health Center, Babel District, Southeast Aceh Regency in 2024

Socio-Economic	AKBK				Total		p-value
	Using	Not Wearing	N	%	N	%	
Height	11	28,2	7	17,9	18	46,3	0,007
Low	4	10,2	17	43,5	21	53,7	
Total	15	38,4	24	61,5	39	100	

These results indicate that higher socioeconomic status is associated with a greater likelihood of using subdermal contraceptive methods, suggesting that financial and social capacity may influence women's choices regarding long-term contraceptive methods.

Discussion

This research is in line with research conducted by Siti (2021) entitled The Relationship between Parity, Economic Status, and Education with the use of AKBK. Results The results of the statistical test obtained a p value = 0.039 which means that there is a relationship between economic status and the use of AKBK so that the hypothesis that there is a relationship between economic status and the use of AKBK is statistically proven

According to researcher Hutahuruk (2018) with the results of the study showing that family income greatly affects respondents not to use contraceptives, the higher the respondent's income will have a positive impact on their needs

Economic constraints limit access not only to health services but also to information and follow-up care. Families with better financial conditions are more willing to choose long-term contraception like AKBK, which, although initially free, may require follow-up visits or treatment for side effects (Simanjuntak *et al.*, 2022)

According to the researchers' assumptions, there is an economic influence with the use of AKBK. The economy is directly related to the needs of the family, high and regular income brings a positive impact to the family because the overall needs of clothing, food and transportation and health can be met. However, this is not the case with families whose income is low will result in families experiencing vulnerability in meeting their living needs, one of which is health maintenance (Isyos Sari and Siti Nurmawan, 2024). As found in the field, families with good economies will be willing to use the economic willingness AKBK for the post-installation control process and the time of revocation. Meanwhile, mothers with low economies



will consider again even though the installation is free, but if it is not suitable or there are other problems, financing is borne by themselves (Sonia Novita Sari *et al.*, 2024)

Conclusion and Suggestion

Conclusion: This study found a significant relationship between socioeconomic status and the use of subdermal contraceptive implants (AKBK) among women of reproductive age at Biak Muli Health Center, Bambel District, Aceh Tenggara. Women with higher socioeconomic status were more likely to use AKBK compared to those with lower socioeconomic backgrounds.

Suggestions :

For Healthy Women/Respondents: It is encouraged to seek accurate information about long-acting contraceptive methods such as AKBK through available health services to support informed decision-making and reproductive health planning.

For Health Workers: Health personnel should intensify education and counseling regarding the benefits and management of AKBK, especially for women from lower socioeconomic backgrounds.

For Policymakers: It is recommended to implement targeted interventions, including subsidies or support programs, to improve access to AKBK among underserved populations and reduce disparities in contraceptive use

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