

## MEASUREMENTS OF WOMEN'S AUTONOMY IN REPRODUCTIVE HEALTH IN DEVELOPING COUNTRIES: A LITERATURE REVIEW

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### Abstract

**Background:** The autonomy associated with the essence of decision-making in the field of reproductive health, including about fertility, pregnancy, and the utilization of health services. The research has shown that autonomy occurred in poor countries and growing. This literature is intended to explore autonomy measures and policies related to reproductive health programs.

**Methods:** Review of the literature search some databases such as the Online Public Access Catalog (OPAC) and Pubmed Medical Center (PMC). Twenty-two articles that met the criteria for discussion included articles dominated by South and Southeast Asia and parts of Africa, as well as one European region. Most of the literature defines women's autonomy using theories from previous literature.

**Results:** the study proves that there is a link between autonomy and utilization of health services, family planning and fertility. Autonomy measurement is done by using direct and indirect dimensions. Dimensions direct connect participation in decision making related to the economy, household and mobility. The other dimension is to assess women's attitudes toward domestic violence. Dimensions are indirectly related to proxies that affect women's status such as employment, education or media exposure.

**Conclusion:** Potential policies and programs related to reproductive health in developing countries basically recommend the integration of women's empowerment in health programs.

**Key words:** *Women, Autonomy, Health, Reproduction, Developing, Countries.*



## INTRODUCTION

The reproductive health rights become one of the international agenda in 1994, the International Conference of Population Development (ICPD) conference in Cairo emphasis about humanism approach and human rights in looking at population and development issues and on the role of empowering women in reproductive behavior. The reproductive health also become a priority program to improve the women roles<sup>7,23</sup>.

Autonomy assessment is an indicator in increasing the role of women<sup>16</sup>. Dason and Moore (1983) explain autonomy as a person's ability to participate in the environment, be able to access information freely and be involved in decision making. Married women have increased autonomy so they can make decisions in the household and have power over personal rights such as household affairs and financial arrangements<sup>28,36</sup>.

Socio-economic and social is one dimension of autonomy. Countries with patriarchal ideas such as Bangladesh, India, including Indonesia have the same problem in autonomy. This understanding puts men in a more powerful position than women. Haque's (2012) study in Bangladesh and Widyastuti (2017) in Indonesia show that autonomy affects women's decisions in using ANC. Likewise, research in India shows that there is a link between women's autonomy and the use of health services and the improvement of reproductive health<sup>32</sup>. Other studies have shown that women with higher status may control fertility and reproductive health<sup>25</sup>.

Gender dynamics related to sexual and reproductive health began to be encouraged after the ICPD Conference in 1994. Based on the facts, there are limitations for women to participate in decisions in the household and family environment<sup>12</sup>. This continues to deepen the international agenda, MDG's 2015, SDG's, and the World Bank's world

development report 2012, which places the main program on issues of women's rights and gender.

Based on the concept of Kabeer (1999; 2001) reproductive health is associated with women's autonomy. therefore, research is needed to support the theory by measuring autonomy. Specifically, the objectives of this study are 1) To identify the linkages between autonomy and various reproductive health outcomes, 2) to examine indicators of measuring autonomy with various reproductive health outcomes.

## METHODS

### Search Strategy and Study Inclusions

Searches were initially carried out on all literature sites such as Pubmed, Elseiver, Bmj, Biomed, Science direct and others .However, there is no literature on the measurement of autonomy. The search for literature sources is done by electronic online databases with Online Public Access Catalog (OPAC) and Pubmed Medical Centre (PMC). The addition of sources of information is done using Google Scholar, and relevant articles are also used as references. The selection process is described in the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) framework in Figure 1. Inclusion criteria consist of 1) English and Indonesian 2) Assessing the links between autonomy and at least one of the reproductive health outcomes. 3)Describe clearly the measurement of autonomy 4)Describe associations, not opinions or literature 5) limitation of 2000-2020.The exclusion criteria were articles with the keywords above, however 1) targeting the general population (not married women) 2) did not address women's autonomy. 3) articles other than English and Indonesian..

## RESULTS

Literature consists of 541 publications related topics literature search found only in Public Access Catalogue (OPAC), Pubmed Medical Centre (PMC) and Google Scholar. After article duplication selection, there were 2566 articles left. Then screening the relevant article titles and abstracts. Publications with primary and secondary data are included when discussing autonomy and one of the effects of reproductive health, so that the remaining 29 articles with full texts will be assessed and then 7 articles are released because they only contain reviews and opinions. And at the end of the search, 22 articles were included in the selection for review. The evaluation of the quality of articles was not carried out in this study because the purpose of the synthesis of the literature was to summarize the assessment of the effect size of the review article (Figure 1)

Most studies are conducted in parts of South Asia, ten in parts of Africa and two in parts of Southeast Asia and Europe. All studies used quantitative methods for data collection, dominated by secondary data with a Demographic Health Survey (DHS), the rest using primary data.

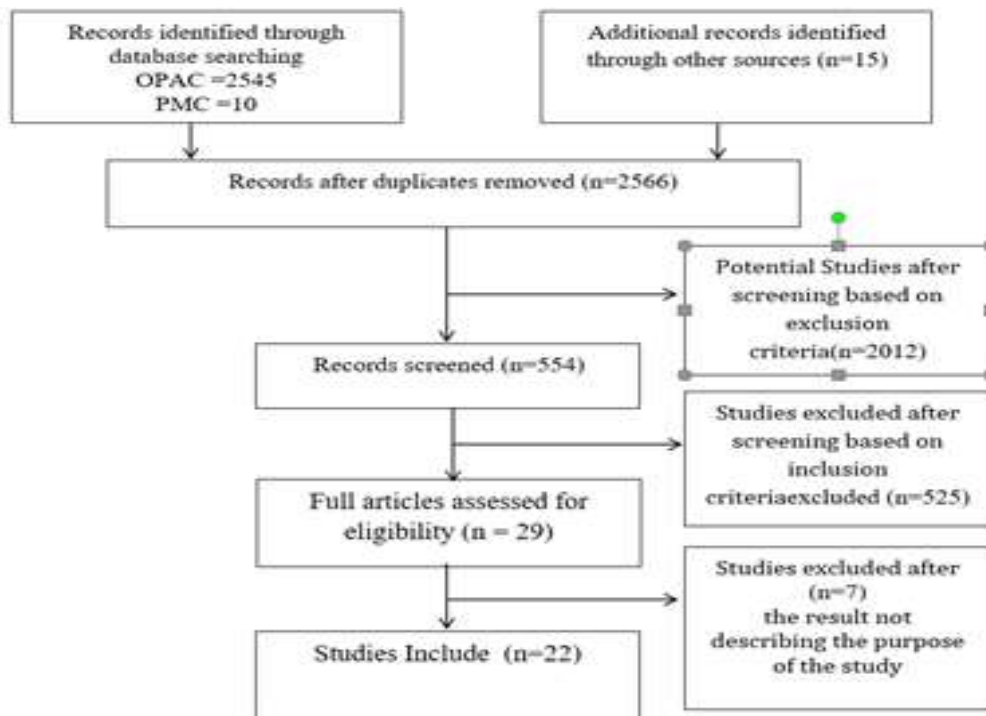
Autonomy and various effects of reproductive health

Most of the literature defines female autonomy using theory from previous literature. Another study combines the definition of female autonomy by Dyson and Basu as the capacity to manipulate the environment related to controlling resources and information for personal desires. Dominant studies discuss the relevance of autonomy with the use of reproductive health services, six articles discuss Family Planning, five publications suggesting pregnancy, and the rest link autonomy with fertility and sexual activity.

Autonomy measurement indicator

Measurement of autonomy is carried out using direct and indirect dimensions. The direct dimension links participation in decision making related to the economy, household and mobility. Another dimension is assessing women's attitudes towards domestic violence. The dimensions are indirectly related to proxies that affect women's status such as employment, education or media exposure. So that causes gender differences between men and women. Various literature uses these dimensions singly or in combination. Most of the literature uses dimensions of participation in decision making in households for measuring autonomy.

On a single basis, participation in the household was used in the research of Hindin (2011) and Rahman (2012) with the discussion of pregnancy. Another single dimension uses attitudes towards domestic violence by Woldemicael (2009) related to fertility. The combination of participation in the household and attitudes towards violence were used in several studies related to the utilization of health services (Upadhyay & Karasek, 2012; Situ, K.C., 2013; Tadesse et al, 2013; samari Goleen, 2017; Tiruneh et al, 2017). Another combination is indicated by using dimensions of participation in households and mobility (Mistry et al, 2009; Renuka & Jeyarathman, 2016; Haider, 2017). Then a combination of direct and indirect dimensions is also found in the literature (Adhikari & Yothin, 2011; Kamiya, 2011).



**Figure 1. Flow of Systematic Review**

**Table. 1. Characteristics of Review Articles**

No	Author/year of publication	Setting	Study Objectives	Study Design	Sample size	Data Source
1	Upadhyay and deborah/2012	Afrika	Understand whether women's empowerment is associated with their ideal number of children and ability to limit fertility to that ideal number	Survey	n= 1,993 matched couples in Guinea, n= 2,668 in Mali, 844 in Namibia and n= 3,197 in Zambia.	2005,2006,2007 DHS survey
2	Tadesse et al/2013.	Afrika (Ethiopia)	Exploring major gender-related factors that can potentially influence the use of contraception among women who are married or living with a partner.	Survey	n=10,204 who were currently married	2011 Ethiopia Demographic and Health Survey (EDHS)
3	Stojanovski et.al/2017	Eropa(Roma)	Examine women's agency and how it related to desired timing of pregnancy among Romani women in Macedonia and Serbia	Survey	n= 410 Romani women	Primary data
4	Goleen Samari /2017	Mesir	Examine recent patterns of contraceptive method choice and how women's empowerment is associated with contraceptive method type: none, short-acting or long-acting reversible contraceptive methods	Survey	n= 47,545 married women	2005, 2008 and 2014 Egyptian Demographic and Health Survey

No	Author/year of publication	Setting	Study Objectives	Study Design	Sample size	Data Source
5	Renuka and Jeyarathman/2016	Afrika (Coimbatore)	This study was carried out to identify the relationship between women's autonomy and family planning practices	Survey	n= 56 married women	Primary Data
6	Mosfequr Rahman/ 2012	Bangladesh	Examines the net effect of women's autonomy on their pregnancy intention status among currently pregnant Bangladeshi women	Survey	n= 718 currently pregnant women	Bangladesh Demographic Health Survey, 2007
7	Patrikar,et.al/ 2014	India	Analyze the relationship between these two indicators of women's empowerment and the use of contraception.	Survey	385 currently married women	Primary data
8	Abada & Tenkorang/ 2012	Filifina	Examined autonomy contributes to unwanted and mistimed births in the Philippines	Survey	n=13,945 women	2003 Philippines National Demographic and Health Survey
9	Blackstone/ 2017	Afrika (Ghana)	Investigate whether women's empowerment and status in the household were associated with contraceptive use	Survey	n= 1828 women aged 15-49	2014 Ghana Demographic and Health Survey
10	Ghose et.al/ 2017	Bangladesh	Determine the association between women's decision-making power and utilisation of maternal healthcare services (MHS) among Bangladeshi women	Survey	n=17.989 households	2014 Bangladesh Demographic and Health Survey
11	Woldemicael/ 2007	Ethiopia And Eritrea	Different dimensions of women's decision-making autonomy and their relationship to maternal and child health-care utilization are investigated	Survey	n=14.070 women age 15-49 years	Demographic and Health Surveys (DHS) conducted in Eritrea and Ethiopia in 2002 and 2005
12	Furuta and Salway/2006,	Nepal	How a woman's position within her household may affect the receipt of health care deserves further investigation	Survey	n= 8,400 ever-married women aged 15-49	2001 Nepal Demographic and Health Survey
13	Mistry et,al/ 2009	India	Investigate whether women's autonomy was associated with the use of adequate prenatal, delivery and postnatal care	Survey	n=90,303 women age 15-49 years	Population-based National Family Health Survey-2 (1998-1999)
14	Haider et,al/ 2017	Bangladesh	This study aims to construct an index of women's autonomy to analyze its effect on maternal healthcare utilization in Bangladesh.	Survey	n = 8753 women	Bangladesh Demographic and Health Survey (BDHS) 2011
15	Kamiya/ 2011	Tajikistan	Examines whether or not and how women's autonomy within the household affects the use of reproductive health care, using a household survey data from Tajikistan	Survey	n=4860 women from 19 to 49 years old	Tajikistan Living Standards Survey 2007

No	Author/year of publication	Setting	Study Objectives	Study Design	Sample size	Data Source
16	Haque,et.al /2012	Bangladesh	examine the linkage between the possible influences of the extent of autonomy on young mothers use of reproductive health care services	Survey	n=1,778 currently married women aged 15 to 24 years	2007 Bangladesh Demographic Health Survey
17	Hindin and Muntifering/ 2011	Africa	explored the relationships between married women's autonomy and the time since most recent sexual intercourse in Ghana, Malawi, Mali, Rwanda, Uganda, and Zimbabwe	Survey	n=1944(Ghana), 5556(Malawi), 5308(Mali), 3927 (Rwanda),2812(Uganda) and 3594 (Zimbabwe)	Demographic and Health Surveys
18	Adhikar& Sawangdee/ 2011	Nepal	Examine the factors influencing infant mortality, specifically, whether women's autonomy has an impact on infant mortality in the Nepali context	Survey	n =5,545 children who were born within the five years preceding the survey	Nepal Demographic and Health Survey, 2006
19	Situ.K/ 2013	Nepal	Assess the association between women's autonomy and maternal health care utilization among Nepalese women	Survey	n = 4,148 women	2011 Nepal Demographic Health Survey
20	Tiruneh et al. /2017	Ethiopia	assessed whether women's autonomy, measured at both individual and community levels, is associated with maternal healthcare service utilization in Ethiopia	Survey	n = 14.070 in 2005 and n = 16. 515 in 2011 Women ages (15-49)	2005 and 2011 Ethiopia Demographic and Health
21	Woldemicael/ 2009	Eritrea	Address some of the most frequently raised questions about the link between women's autonomy and reproductive behaviour	Survey	n = 8754 Women ages (15-49)	2002 Eritrea Demographic and Health Survey
22	Widyastuti/2017	Indonesia (Jateng)	Examine the relationship between women autonomy and ANC utilization	Survey	n= 85 married teenage	Primary data

**Table 2. Measurement of autonomy and associations on the impact of reproductive health**

No	Author/year of publication	Outcome	Measurement of autonomy	Association
1	Upadhyay and deborah/2012	Fertility	Negative attitudes toward wife beating and Greater household decision	B=0,5 & 0,3
2	Tadesse et al/ 2013.	Family Planning	Women's attitude towards domestic violence, women's involvement in household decision making, and exposure to sources of knowledge	AOR( (1.14,1.27) & ((1.19,1.33)
3	Stojanovski et.al/2017	Fertility	Labour force and inclusion in household decisions	RRR = 1,4, CI (1.1, 1.8)].
4	Goleen Samari /2017	Family Planning	Household decision-making and attitudes towards intimate partner violence	RRR: 1.12 & 1.04
5	Renuka and Jeyarathman/2016	Family Planning	Decision making autonomy, movement autonomy and control over economic resources	X2 =11,445 & X2 =6,915

No	Author/year of publication	Outcome	Measurement of autonomy	Association
6	Mosfequr Rahman/2012	Fertility	Women's household decision-making autonomy	OR = 0,77, 95% CI: 0,54-0,88
7	Patrikar,et.al/2014	Family Planning	Women's decision-making power index and women's autonomy index	0,7%, 95% CI 66,2, 75,28
8	Abada & Tenkorang/ 2012	Fertility	Education and wealth as indicators of women's autonomy	OR 0.949 (0.150)
9	Blackstone/ 2017	Family Planning	Attitudes towards intimate partner violence and decision-making	$\beta = 0,092$ ; $p < 0,05$
10	Ghose et.al/2017	Health Care Utilization	Decision-making status on respondent's own healthcare, large household purchases, having a say on child's healthcare and visiting to family or relatives	95% CI 0,794 - 1,799
11	Woldemicael/ 2007	Health Care Utilization	Women's decision-making power, freedom of movement and women's attitude toward partner's violence	OR 0,56-1,60
12	Furuta and Salway/2006,	Health Care Utilization	Household—decision making, employment and influence over earnings, and spousal discussion of family planning	OR 1,4 & 1,3
13	Mistry et,al/2009	Health Care Utilization	Measured in the 3 dimensions of decision-making autonomy, permission to go out, and financial autonomy	OR 1,05,1,08 & 1,111
14	Haider et,al/ 2017	Health Care Utilization	decision making regarding healthcare, financial autonomy and freedom of movement	
15	Kamiya/ 2011	Health Care Utilization	Womens decision on child's well being, on buying major items and on borrowing money	3,6% dan 3,0%
16	Haque,et.al /2012	Health Care Utilization	Dimensi otonomi dengan Employment and economic decision making	[AOR], 1.64; 95%CI], 1.17–2.23
17	Hindin and Muntifering/ 2011	Fertility	Household decision making	HR 0,90
18	Adhikar& Sawangdee/ 2011	Fertility	Literacy status, decision on own health care, on making large household purchases, household purchases for daily needs,and visits to family or relatives	OR = 0,61 & 0,74
19	Situ.K/ 2013	Health Care Utilization	Decision making regarding health care, large household purchases, visiting friends or relatives and spending money earned by husbands	OR = 1,69, 95% CI = 1,41-2,03
20	Tiruneh et al. /2017	Health Care Utilization	Decision making power on household and attitude toward wife beating	AOR = 1,16; 95% CI = 1,08-1,90
21	Woldemicael/ 2009	Fertility	Women agree or disagree with negative gender norms (i.e. wife Beating	NA
22	Widyastuti/2017	Health Care Utilization	Participation on decision making	(p-value = 0.013, $X^2 = 6.168$

## Utilization of services

Review studies show the dominance of autonomy related to the utilization of health services. ten studies conducted research to identify the relationship between autonomy and utilization of services, both for maternal health and for children. Eight studies were conducted in South Asian countries (Bangladesh, Nepal, India) and two others in African countries. Ghose (2017) shows the association between participation in decision making and the utilization of maternal health services for Bangladeshi women. The results showed that, compared to women who could make decisions, women in urban areas who had decided on their health care with their husbands / partners had 20% (95% CI 0.794 to 1,799) more likely to attend at least four antenatal visits and they settling in rural areas has 35% (95% CI 0.464 to 0.897) lower chances of attending at least four antenatal visits.

This is supported by Haider (2017) which shows that every one increase in autonomy score, the utilization of maternal health services will increase by 0.14 for ANC, and 0.13 for PNC. Research in the same country was also carried out by Haque (2012), but with young female respondents (15-24 years) showing that young women who have a higher degree of autonomy are more likely to receive adequate ANC. Likewise, women with moderate autonomy were 1.40 times more likely to give birth assisted by trained personnel than women with low autonomy. Widyastuti (2017) also with the subject of Indonesian adolescents reveals that it is important for adolescents to have decision-making power in the family, especially during pregnancy.

Studies in another South Asian country in Nepal also showed that women with autonomy in health care were significantly more likely to attend ANC = 3 visits (OR = 1.69, 95% CI = 1.41-2.03) and had the opportunity to give birth in a health facility (OR = 1.44 95% CI = 1.26-1.64)<sup>31</sup>. African countries such as Eritrea and Ethiopia also

express the same thing that the strong positive influence of a woman's decision making enables them to participate in decisions. The percentage of women with high decision-making power has a positive relationship with antenatal care visits<sup>36</sup>. Furuta's (2006) study is slightly different from the others, because the results showed that although the relationship was not consistent across all indicators, husband and wife discussions about family planning were associated with an increased likelihood of receiving antenatal care and childbirth..

## Family Planning

Blackstone (2017) in his study in African countries (Ghana) and regression analysis showed that women who are abused have a low chance to use contraception. In other African countries (Ethiopia) studies related to family planning autonomy associated with dimensions in household decisions and attitudes toward violence with the results showed there is a correlation between the two<sup>34</sup>. Renuka (2016) in Coimbatore also proves the alleged relationship with chi-square analysis which shows a strong relationship between decision-making power and contraceptive use and between indirect dimensions and educational indicators that have a strong relationship with contraceptive use.

Samari (2017) in Egypt found that women with a high degree of autonomy tend to use the LARC method compared to short-acting ones. The same thing with research Patrikar (2014) in India found evidence that women with low levels of decision making has a higher degree of autonomy that allows the use of contraception.

## Fertility

Uphadhyay (2012) conducted a study in Guinea and Zambia, which is an African state, identify negative attitudes violent relationship with the ideal number of children fewer. Rahman (2012) conducted a



study in Bangladesh showing that women with a high autonomy scale of unwanted pregnancies were around 23%. Stojanovski (2017) also conducted research in roma which showed that women who are able to make decisions showed 1.4 times control unwanted pregnancy.

In another South Asian country, Nepal has shown a study that women who are literate are 39 percent less likely to die of infants than illiterate women. Likewise, women who are able to participate in decision making have a 26 percent lower likelihood of infant mortality than those who are not involved in the decision-making process<sup>4</sup>.

## DISCUSSION

the concept of autonomy does not only concern social issues, but also develops in health sciences. The autonomy of women in making decisions, especially in terms of reproductive health, is very important for better maternal and child health<sup>18</sup>. From various factors that hinder women's access to reproductive health in developing countries, it proves that women's autonomy has an important role<sup>10</sup>.

The ability of women to participate in health decisions depends in part on autonomy<sup>13</sup>. People with low income have an impact on the status of women with limited autonomy and the ability to make decisions in every aspect of life<sup>30</sup>. This illustrates that a society with such conditions still has a strong social structure that rigidly defines the roles of men and women, usually coded in religious, ethnic and social traditions<sup>14</sup>.

R. Freedman in the 2012 IDHS Further Analysis, describes a model between fertility and social conditions with the prevailing norms. The results of further analysis of the 2012 IDHS show that social structures and norms have a significant effect on fertility. Previous research, located in Sehore, a district of Madhya Pradesh in India by Char et al (2010), showed that family and

prevailing norms influence women to make decisions regarding the number of children and the use of contraception. According to Freedman, variables that directly affect fertility are basically also influenced by the norms prevailing in society.

In making decisions related to fertility, the relationship between family members is influenced, especially the relationship between husband and wife. Husband and wife relations are reflected in gender relations which are the construction of socio-cultural values and norms at the community level<sup>2</sup>. The success of the Family Planning (KB) program is highly dependent on community participation. It is hoped that the high level of community participation in the family planning program can achieve the goals of the family planning program. One indicator of the success of the Family Planning (KB) program is the declining rate of population growth. Women's participation and empowerment in family planning programs is a potential strategy in increasing women's access and cultural transformation<sup>8</sup>.

Women's participation in the family planning program supports women's empowerment in making decisions for themselves and their families<sup>22</sup>. The socio-cultural context that describes the relationship between women's characteristics at the individual level in decision-making and autonomy is the main mediator intervention between women's status and reproductive outcomes<sup>19</sup>. Gender inequality affects communication, thereby limiting women's decision making to access reproductive health<sup>3</sup>.

Reproductive health program and policy opportunities in developing countries are basically related to the integration of women's empowerment into health programs. Based on the literature study, the program strategy offered relates to contraceptive use through the promotion of women's empowerment, namely decision making and education. thus impacting women's ability to negotiate fertility decisions. Meanwhile, for the utilization of

health services, the government can focus on individual awareness and public awareness of women's rights to use maternal and child health services. Other policies such as the establishment of socioeconomic improvement programs for women and education programs to increase the status and power of women in the household and society can effectively increase the utilization of women's health and health services.

Based on the results of a study in India recommends a home visit strategy of village health workers through the National Rural Health Program, Accreditation of Social Health Accreditation, which can promote women's autonomy and utilization of maternity care services that include prenatal care, childbirth and postnatal care. Similar to studies in Bangladesh, the results of the study emphasize the importance of focusing on a comprehensive strategy to increase women's autonomy rather than just focus on the socio-economic improvement. In addition, intervention programs in improving health service is expected to pay attention to the socio-cultural elements as a guideline. Meanwhile, the education factor is highly emphasized in Nepal to increase women's autonomy which can directly increase the use of health services and women's ability to regulate fertility.

## CONCLUSION

This review identifies gaps from various studies in developing countries related to reproductive health impact data in relation to women's autonomy. And in fact the results of the study indicate an association between the two. The use of the autonomy dimension to measure associations is still not perfect because some literature uses a single dimension or a combination of two dimensions.

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