

DIMENSIONS FACTORS INFLUENCING PARTICIPATION OF FERTILE-AGE COUPLES IN FAMILY PLANNING PROGRAMS

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Abstract. The study aimed to analyze the factors influencing the success of family planning programs based on three main dimensions of developing an understanding of public health. This study used the scoping review approach of articles with the theme “family planning”. Article searches were conducted through PubMed, Google Scholar, Scopus, ScienceDirect, Emerald, and ProQuest, with the following inclusion criteria: free full text, systematic review and meta-analysis, published between 2017-2022 in English and Indonesian. The keywords used were “family planning” and “associated factors”. Eight articles were identified and they revealed that the factors influencing the participation of fertile-age couples in the family planning program were education, marital status, age, religion or belief, occupation, area of residence, sexual activity, reproductive health history (menstrual pattern and postpartum period), parity, history of contraceptive use, family planning counseling, partner cooperation in discussing family planning, knowledge (before marriage and after childbirth), positive attitude or support from partner, ownership of electronic media, exposure to information about family planning methods, access to family planning services, and government and agency support in family planning programs. Those factors were categorized into three dimensions, namely the status dimension, the structure dimension, and the process dimension. The results showed that the status dimension was found in 8 articles (100%), the structural dimension in 4 articles (50%), and the process dimension in 2 articles (25%). However, all dimensions need to be considered comprehensively to increase the

participation of fertile-age couples in family planning programs by developing an understanding of public health.

Keywords: family planning, participation, status dimension, structural dimension, process dimension

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INTRODUCTION

Participation of fertile-age couples in family planning programs needs to be increased by identifying the factors that influence the participation of fertile-age couples through developing an understanding of public health. The non-optimal participation of fertile-age couples in family planning programs is shown by data on early marriage, maternal mortality, infant mortality, and the Indonesian population which is still high or still above the target. Data for 2019 and 2020 show the proportion of early marriages in 2019 was 10.82% and in 2020 it was 10.18%; the maternal mortality rate in 2019 was 4,221 people per 100,000 live births and in 2020 there were 4,627 people per 100,000 live births; the infant mortality rate in 2019 was 26,395 people per 100,000 live births and in 2020 there were 25,652 people per 100,000 live births; the population in 2019 was 266,911.9 thousand and in 2020 there were 269,603.4 thousand (Statistics Indonesia, 2020b; Jonata, 2021; Primadi and Budijanto, 2020; Primadi and Ma'ruf, 2020).

In addition to data on early marriage, maternal mortality, infant mortality and population, the low participation of fertile-age couples in the family planning program is indicated by the contraceptive prevalence rate (CPR), which is a comparison between fertile-age couples who are active family planning acceptors and the number of fertile-age couples at a

certain time (Statistics Indonesia, 2018; Statistics Indonesia, 2019; Statistics Indonesia, 2020a). The CPR in 2019 was 54.97% (target 61.30%) and the CPR in 2020 was 57.90% (target 61.78%) (National Population and Family Planning Board, 2021a; National Population and Family Planning Board, 2021b). The low CPR data in 2019 and 2020 which have been published by the National Population and Family Planning Board shows that the participation of fertile-age couples in the family planning program has not succeeded in meeting the set targets and has not been able to achieve optimal success indicators for family planning programs. The participation rate of fertile-age couples in family planning programs affects the quality of women's reproductive health, maternal and infant mortality, stunting, and unplanned pregnancies (Ramadani and Yolanda, 2018).

The participation of fertile age couples in family planning programs is a form of health promotion behavior. Fertile-age couples who participate in family planning programs usually perceive the family planning program's benefits, risks, supporting factors, and obstacles. Hence, the perception of fertile age couples can motivate them to participate in family planning programs and foster their readiness, motivation, and confidence in family planning programs. In this case, individual or community health promotion behavior is influenced by three main dimensions of public health development: status, structural, and process dimensions. The dimensions of status include biological aspects (age, parity, reproductive health history, and birth spacing), emotional or psychological aspects (anxiety and motivation), and social aspects (family knowledge and support). Structural dimensions encompass service availability and the availability of resources or service personnel. Meanwhile, the process dimension comprises the role of the community, community support or health workers or extension workers, and government support (Stanhope and Lancaster, 2012).

Moreover, the participation of fertile-age couples in family planning programs reflects the level of contraceptive use by fertile-age couples in regulating pregnancy or fertility. The participation of fertile-age couples is also influenced by the desires of fertile-age couples, availability of products

and quality of services, social norms and values, education level, marital pattern, birth spacing, government support, child ownership, attitudes, and support of spouses, presence of family planning extension officers, availability of cost, the number of living children, availability of media, access to information, and collaboration of Ministries, non-Ministerial Government Agencies, private sector, and community leaders (Golda, 2018; Hardari *et al*, 2017; Rokom, 2017; Sutopo *et al*, 2014). The participation of fertile age couples in the family planning program is also an indicator of the success of the family planning program. Factors affecting the participation of fertile-age couples in family planning programs can be categorized into internal and external factors. Internal factors affecting the participation of fertile-age couples in family planning programs include knowledge of fertile-age couples, number of children, health aspects, and access to information. Meanwhile, external factors influencing the participation of fertile-age couples in family planning programs consist of family support, support for family planning extension workers or health workers, support from government and community institutions, availability of human resources and funds, the existence of a information, education, and communication (IEC) on family planning, quality and quantity of family planning services, and socio-cultural, economic, and religious aspects (Prasetyawan *et al*, 2013; Susanti and Hutasoit, 2019; Tessema *et al*, 2016; Trianziani, 2018; Wandera *et al*, 2019).

MATERIALS AND METHODS

This study aimed to analyze the factors influencing the success of the family planning program based on three main dimensions of developing an understanding of public health through the scoping review approach. The article search was conducted firstly through PubMed –with the inclusion criteria: free full text with a systematic review and meta-analysis study design and published between 2017-2022 in English and Indonesian. The keywords used in the article search were “family planning” and “associated

factor". The search results for articles with the keyword "family planning" obtained 59,528 articles. After applying the filter according to the inclusion criteria, 204 articles were obtained. Next, an advanced search was conducted with the keywords "family planning" and "associated factor," and 57 articles were obtained. Of the 57 articles, identification was performed by reviewing the title and abstract, then reviewing the article contents and obtaining eight articles that met the criteria. In addition, the search for articles through Google Scholar was carried out with inclusion criteria: being published in 2022 in the form of article reviews, with the keyword "Family Planning" and as a result, 49 articles were obtained. After identifying the title and abstract, which was then carried out by reviewing the article contents, one article was obtained that met the criteria. Article searches were also conducted using the Scopus, ScienceDirect, Emerald, and ProQuest search engines with the keyword "family planning participation". Searching was performed with inclusion criteria: published in 2018-2022, in English, open access. As such, 2 articles were obtained from the Scopus search engine, 4 articles from ScienceDirect, 26 articles from Emerald, and 20 articles from ProQuest. Of the 52 articles identified, the titles and abstracts were identified, which were then reviewed for the content of the articles and the results did not produce articles that met the inclusion criteria. All identified articles were imported into the Mendeley reference management application and duplicated articles were deleted (Fig 1).

RESULTS

Scoping review was done by synthesizing articles using a literature synthesis matrix. Based on the identification of eight articles that met the inclusion criteria, it was found that the factors influencing the participation of fertile-age couples in the family planning program were education, marital status, age, religion or belief, occupation, area of residence, sexual activity, history of reproductive health (menstrual pattern and postpartum period), parity, history of contraceptive use, family planning counseling, partner

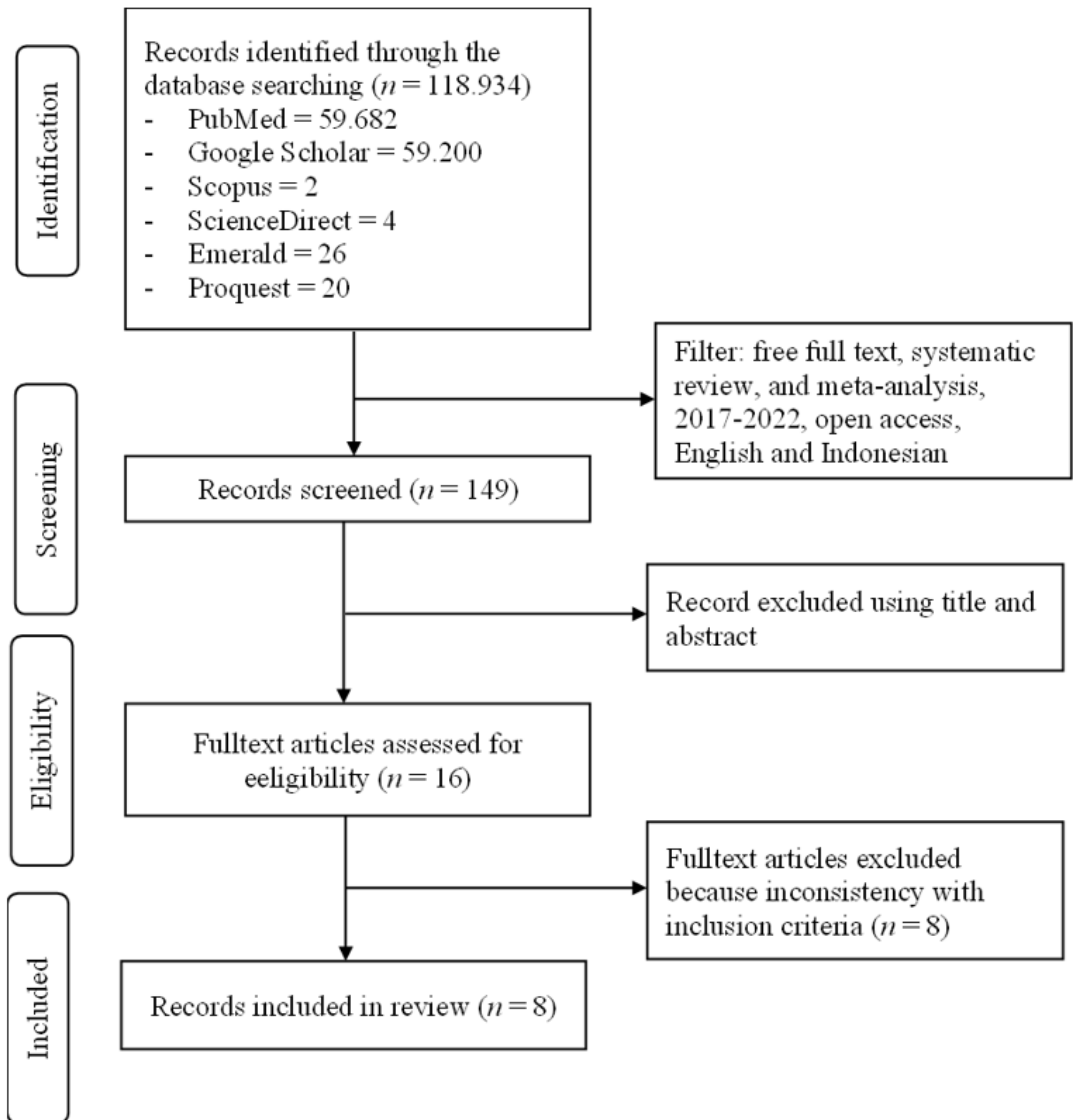


Fig 1 - Selection flowchart of scoping review: dimensions factors influencing participation of fertile-age couples in family planning programs

cooperation in discussing family planning, knowledge (before marriage and after childbirth), positive attitude or support from spouses, ownership of electronic media, exposure to information about family planning methods, access to family planning services, and support government and agencies in family planning programs (Table 1). These factors were then categorized based on the three main dimensions of public health development. It included marital status, religion or belief, occupation, history of contraceptive use, age, parity, reproductive health history, knowledge, and husband's involvement or support as status dimensions. Area of residence, access to family planning services, exposure to information about family planning methods, ownership of electronic media, and family planning counseling were included in the structural dimension. In addition, government and agency support in family planning programs was in the process dimension. The most frequently reported dimension factor influencing the participation of fertile-age couples in family planning programs is the status dimension of 100% or 8 articles. Factors from the dimensions of the participation status of fertile-age couples in family planning programs that are widely reported are educational status factors of 75.0% or 6 articles (Table 2).

DISCUSSION

The results showed that the dimension of influence of the participation of fertile-age couples in the family planning program that was most commonly found in the source articles was the status dimension. The status dimension is a dimension that is often found in source articles, because the status dimension consists of three aspects and includes many factors, namely age, parity, reproductive history, birth spacing, anxiety and motivation, knowledge, and family support. The status dimension reflects health aspects related to biological aspects, psychological or emotional aspects, and social aspects. The biological aspect shows the physical condition which can be seen from the level of health, disease risk, and life expectancy index.

Table 1
 Synthesis of scoping review: dimensions factors influencing participation of fertile-age couples in family planning programs

Reference	Objective	Method	Sample	Research result
Kassa <i>et al</i> (2022)	To estimate the pooled prevalence of male involvement in family planning and its associated factors in Ethiopia	Systematic review and meta-analysis	A total of seventeen studies were included to give the pooled prevalence of male involvement in family planning in Ethiopia.	The results of this study indicated that the factors influencing the involvement of men in family planning were educational status, the discussion between husband and wife about family planning, knowledge, positive attitudes towards family planning programs, and support from men or husbands in family planning programs.
Beyene <i>et al</i> (2021)	To review post-abortion contraceptive utilization and its factors in Ethiopia	Systematic review and meta-analysis	Eleven studies were taken in the meta-analysis.	The results of this study revealed that the factors that influenced the use of contraception in post-abortion female respondents included marital status, family planning counseling, education level, the experience of using contraception, and age.
Dasa <i>et al</i> (2019)	To synthesize logical evidence about factors associated with long-acting family planning service utilization in Ethiopia	Systematic review and meta-analysis	Fifteen studies were identified from all published or unpublished observational studies written in English prior to 2018.	The results of this study uncovered that the factors that impacted the use of long-term family planning services in Ethiopia consisted of the level of knowledge, age, ownership of electronic media, area of residence, employment status, exposure to information about family planning methods, and husband's involvement in discussions about family planning.

Table 1 (cont)

Reference	Objective	Method	Sample	Research result
Alemu <i>et al</i> (2021)	To estimate the pooled knowledge level of pre-conception care and its association with family planning usage among women in Ethiopia	Systematic review and meta-analysis	Seven articles were included in the current systematic review and meta-analysis.	The results of this study showed that the factor affecting the use of family planning services was women's knowledge about pre-conception care.
Mehare <i>et al</i> (2020)	To estimate the prevalence of postpartum contraceptive use and determinants in Ethiopia using the accessible studies	Systematic review and meta-analysis	Eighteen articles were included based on a comprehensive list of inclusion and exclusion criteria.	The results of this study exposed that the factors influencing the use of contraception in postpartum mothers were postnatal sexual activity, postpartum care, return of menstruation, education level, and the postpartum period.
Safieh <i>et al</i> (2019)	To investigate the effectiveness of mass media interventions for increasing knowledge and use of contraceptives, and to identify barriers to program implementation	Systematic mixed method review	Fifty-nine eligible studies were included.	The results of this study, quantitatively, showed a positive relationship between media intervention and knowledge and the use of contraception. Qualitatively, contraceptive use was influenced by knowledge, impacted by education, socioeconomic status, geographical location, marital status, access to media, and religion. Apart from knowledge, qualitative findings indicated that contraceptive use was influenced by access to services, government support, and agencies in family planning programs.

Table 1 (cont)

Reference	Objective	Method	Sample	Research result
Wakuma <i>et al</i> (2020)	To determine the best available pieces of evidence to pool the magnitude of postpartum modern contraception utilization and find out its determinants	Systematic review and meta-analysis	Nineteen primary studies were included.	The results of this study exhibited that the factors impacting the use of modern contraception in postpartum mothers were postpartum care visits, education, history of family planning use, history of family planning counseling, and parity.
Setyorini <i>et al</i> (2022)	To map the literature evidence on the topic of factors that influence the use of long-term contraceptive methods (MKJP)	Scoping review	Ten articles were selected based on inclusion and exclusion criteria, with the research design; nine cross-sectional study articles and one cohort study article.	The results of this study indicated that several factors affected the use of long-term contraceptive methods (MKJP), ie age, education, parity, knowledge and attitudes, family income, husband's support, the role of health workers, and satisfaction.

Table 2
 Number and percentage of articles source dimensions factors influencing participation of fertile-age couples in family planning programs

Dimension factor	Source	Number of articles	Percentage
Total articles in regard to status dimension	Kassa <i>et al</i> (2022); Beyene <i>et al</i> (2021); Dasa <i>et al</i> (2019); Alemu <i>et al</i> (2021); Mehare <i>et al</i> (2020); Safieh <i>et al</i> (2019); Wakuma <i>et al</i> (2020); Setyorini <i>et al</i> (2022)	8	100
Educational status	Kassa <i>et al</i> (2022); Beyene <i>et al</i> (2021); Mehare <i>et al</i> (2020); Safieh <i>et al</i> (2019); Wakuma <i>et al</i> (2020); Setyorini <i>et al</i> (2022)	6	75.0
Marital status	Beyene <i>et al</i> (2021); Safieh <i>et al</i> (2019)	2	25.0
Religion or belief	Safieh <i>et al</i> (2019)	1	12.5
Occupation or socioeconomic status	Dasa <i>et al</i> (2019); Safieh <i>et al</i> (2019); Setyorini <i>et al</i> (2022)	3	37.5
History of contraceptive use	Beyene <i>et al</i> (2021); Wakuma <i>et al</i> (2020)	2	25.0
Age	Beyene <i>et al</i> (2021); Dasa <i>et al</i> (2019); Setyorini <i>et al</i> (2022)	3	37.5
Parity	Wakuma <i>et al</i> (2020); Setyorini <i>et al</i> (2022)	2	25.0
Reproductive health history	Mehare <i>et al</i> (2020)	1	12.5
Knowledge and attitude	Kassa <i>et al</i> (2022); Dasa <i>et al</i> (2019); Alemu <i>et al</i> (2021); Safieh <i>et al</i> (2019); Setyorini <i>et al</i> (2022)	5	62.5
Husband's involvement or support	Kassa <i>et al</i> (2022); Dasa <i>et al</i> (2019); Setyorini <i>et al</i> (2022)	3	37.5

Table 2 (cont)

Dimension factor	Source	Number of articles	Percentage
Total articles in regard to structural dimension	Beyene <i>et al</i> (2021); Dasa <i>et al</i> (2019); Wakuma <i>et al</i> (2020); Safieh <i>et al</i> (2019)	4	50.0
Residential area	Dasa <i>et al</i> (2019); Safieh <i>et al</i> (2019)	2	25.0
Access to family planning services	Wakuma <i>et al</i> (2020)	1	12.5
Disclosure of information about the method of family planning	Dasa <i>et al</i> (2019); Safieh <i>et al</i> (2019)	2	25.0
Ownership of electronic media	Dasa <i>et al</i> (2019)	1	12.5
Family planning counseling	Beyene <i>et al</i> (2021); Wakuma <i>et al</i> (2020)	2	25.0
Total articles in regard to process dimension (comprising government and agency support for the family planning program)	Safieh <i>et al</i> (2019); Setyorini <i>et al</i> (2022)	2	25.0

Psychological or emotional aspects indicate mental health status which can be seen from the mental health index and satisfaction with a service. The social aspect shows environmental conditions that support or inhibit public health behavior (Stanhope and Lancaster, 2012).

The status dimensions in the participation of fertile-age couples in family planning programs show awareness, motivation, willingness, and readiness of couples of childbearing-ages to accept and implement family planning programs. Age and parity as status dimensions in the participation of fertile-age couples in family planning programs can be factors that determine behavior. As age increases and parity can increase experience, skills, cognitive structures, and mindsets that affect awareness in meeting needs and motivation to behave healthily (Badriyah, 2015; Kaporina, 2016; Nursanti *et al*, 2016). Reproductive health history is a status dimension in the participation of fertile-age couples in family planning programs, because a history of reproductive health can affect the willingness of fertile-age couples to participate in family planning programs. Reproductive health disorders, such as uterine deformities, bleeding with unknown causes, and genital infections, are also contraindications in choosing the type and method of contraception. Thus, a history of reproductive health can affect the readiness of fertile-age couples to participate in family planning programs (Sulistyawati, 2018). Knowledge is a status dimension in the participation of fertile-age couples in family planning programs, because the knowledge of fertile-age couples about family planning programs can affect their readiness of fertile-age couples to participate in family planning programs (Pratiwi, 2019). Family support is a status dimension of the participation of fertile-age couples in family planning programs, because family support is a form of family involvement in decision-making. Family support in family planning programs can be a motivation or encouragement for fertile-age couples to make decisions regarding participation in family planning programs. In addition, family support influences the acceptance of fertile-age couples for family planning programs (Yuliana *et al*, 2022).

The structural dimension is a community structure that provides services or provides resources that support health behavior. The structural dimension consists of service availability and personal resources or service availability. The structural dimension shows the structure of society that can be identified as social action related to public health behavior (Stanhope and Lancaster, 2012). The structural dimension includes the availability of services and the availability of adequate and competent resources or service personnel who can increase the motivation, trust, and awareness of fertile-age couples to participate in family planning programs (Huda *et al*, 2016; Sundari and Wiyoko, 2020).

The process dimension is a form of cooperation between the community and community organizations, government, and health workers. Effective process dimensions can generate consensus or policies that can support public health behavior and solve public health problems. The process dimension consists of the role of the community, community support or health workers or extension workers, and government support (Stanhope and Lancaster, 2012). The role of the community, community support or health workers, and government support can affect the readiness, motivation, and confidence of fertile-age couples to participate in family planning programs (Tatuhe *et al*, 2016; Wulandari, 2008; Yuliana *et al*, 2022).

The dimension that influences the participation of couples of fertile-age couples in family planning programs, which is widely discussed in source articles, is the status dimension. However, efforts to increase the participation of fertile-age couples in family planning programs are determined by three dimensions that influence each other in increasing motivation, willingness, readiness, awareness, and self-confidence of couples of fertile-age couples to participate in family planning programs.

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CONFLICT OF INTEREST DISCLOSURE

The authors declare no conflict of interest.

REFERENCES

- Alemu AA, Bitew MS, Zeleke LB, *et al.* Knowledge of preconception care and its association with family planning utilization among women in Ethiopia: meta-analysis. *Sci Rep* 2021; 11: 10909.
- Badriyah S. Aging affects behavior, 2015 [cited 2022 Oct 10]. Available from: URL: <https://www.kompasiana.com/salilatulbadriyah/54f7bc4ca33311c27b8b4bb2/pertambahan-usia-mempengaruhi-perilaku> [in Indonesian]
- Beyene FY, Tesfu AA, Wudineh KG, Sendeku FW, Ayenew AA. Utilization and its factors of post abortion modern contraceptive in Ethiopia: a systematic review and meta-analysis. *Reprod Health* 2021; 18: 143.
- Dasa TT, Kassie TW, Roba AA, Wakwoya EB, Kelel HU. Factors associated with long-acting family planning service utilization in Ethiopia: a systematic review and meta-analysis. *Contracept Reprod Med* 2019; 4: 14.
- Golda E. The success of the family planning and population programs will create resilient human resources, 2018 [cited 2022 Oct 10]. Available from: URL: <https://mediaindonesia.com/humaniora/158285/keberhasilan-program-kb-dan-kependudukan-akan-cetak-sdm-tangguh>
- Hardati P, Rahayu S, Karsinah I. Factors affecting success population control program in the city of Semarang, 2017 [cited 2022 Oct 09]. Available from: URL: <https://riptek.semarangkota.go.id/index.php/riptek/article/view/27/29> [in Indonesian]
- Huda AN, Widagdo L, Widjanarko B. Factors related to the behavior of use

- of contraceptive devices in women of reproductive age at Puskesmas Jombang-Kota Tangerang Selatan, 2016 [cited 2022 Oct 09]. Available from: URL: <https://ejournal3.undip.ac.id/index.php/jkm/article/download/11856/11511> [in Indonesian]
- Jonata W. Early marriage in Indonesia is still rising, know the causes, 2021 [cited 2022 Oct 09]. Available from: URL: <https://www.tribunnews.com/lifestyle/2021/09/17/peknikahan-dini-di-indonesia-masih-marak-ketahui-faktor-penyebabnya?page=all> [in Indonesian]
- Kaporina M. Relationship between parity and the use of contraceptive devices at Puskesmas Banguntapan II Bantul, Yogyakarta, 2016 [cited 2022 Oct 09]. Available from: URL: <http://digilib.unisayogya.ac.id/2196/1/Naskah-Publikasi-PDF.pdf> [in Indonesian]
- Kassa BG, Tenaw LA, Ayele AD, Tiruneh GA. Prevalence and determinants of the involvement of married men in family planning services in Ethiopia: a systematic review and meta-analysis. *Womens Health* 2022; 18: 17455057221099083.
- Mehare T, Mekuriaw B, Belayneh Z, Sharew Y. Postpartum contraceptive use and its determinants in Ethiopia: a systematic review and meta-analysis. *Int J Reprod Med* 2020; 2020: 5174656.
- National Population and Family Planning Board. Government Agencies Performance Report 2020, 2021a [cited 2022 Aug 09]. Available from: URL: https://drive.google.com/file/d/1MLPmkGdsHkWOaK-oyqbDgEsz_KRRAXq0/view [in Indonesian]
- National Population and Family Planning Board. Indonesia prevents stunting: anticipate the stunting generation to achieve golden Indonesia 2045, 2021b [cited 2022 Oct 10]. Available from: URL: <https://www.bkkbn.go.id/berita-indonesia-cegah-stunting> [in Indonesian]
- Nursanti, Duani M, Sutari NW, *et al.* Psychology papers: the theory of personality according to Kurt Lewin, 2016 [cited 2022 Oct 11]. Available from: URL: <https://pdfcoffee.com/qdownload/makalah-kepribadian-menurut-kurt-lewindocx-pdf-free.html> [in Indonesian]

- Prasetyawan A, Hidayat Z, Widowati N. Implementation of the Men's Family Planning Program in Sronдол Wetan Village, Banyumanik District, Semarang City (Case study of the use of men's medical surgery in the Men's Family Planning Program), 2013 [cited 2022 Oct 11]. Available from: URL: <https://ejournal3.undip.ac.id/index.php/jppmr/article/view/3616/3526> [in Indonesian]
- Pratiwi AI. Factors related to participation of couples of reproductive age (PUS) with the use of contraceptive equipment in Alamendah Village, Rancabali District, Bandung Regency, 2019 [cited 2022 Oct 11]. Available from: URL: <https://jurnal.stikeswilliambooth.ac.id/index.php/Keb/article/view/130/126> [in Indonesian]
- Primadi O, Budijanto D. Indonesia Health Profile 2019, 2020 [cited 2022 Oct 10]. Available from: URL: <https://www.kemkes.go.id/downloads/resources/download/pusdatin/profil-kesehatan-indonesia/Profil-Kesehatan-Indonesia-2019.pdf> [in Indonesian]
- Primadi O, Ma'ruf A. Indonesia Health Profile 2020, 2021 [cited 2022 Oct 10]. Available from: URL: <https://www.kemkes.go.id/downloads/resources/download/pusdatin/profil-kesehatan-indonesia/Profil-Kesehatan-Indonesia-Tahun-2020.pdf> [in Indonesia]
- Ramadani AC, Yolanda F. Six benefits of family planning for women's health: using family planning means respecting women's rights in controlling fertility, 2018 [cited 2022 Oct 11]. Available from: URL: <https://www.republika.co.id/berita/ph2f9z370/enam-manfaat-kb-untuk-kesehatan-perempuan> [in Indonesian]
- Rokom. The success of family planning and reduce maternal mortality, 2017 [cited 2022 Oct 11]. Available from: URL: <https://sehatnegeriku.kemkes.go.id/baca/rilis-media/20170207/2619627/keberhasilan-kb-dapat-turunkan-angka-kematian-ibu/> [in Indonesian]
- Safieh J, Schuster T, McKinnon B, Booth A, Bergevin Y. Reported evidence on the effectiveness of mass media interventions in increasing knowledge and use of family planning in low and middle-income countries: a

systematic mixed methods review. *J Glob Health* 2019; 9: 020420.

Setyorini C, Lieskusumastuti AD, Hanifah L. Factors influencing the use of long-term contraceptive methods (MKJP): scoping review, 2022 [cited 2022 Oct 11]. Available from: URL: <https://jurnal.stikesmus.ac.id/index.php/avicenna/article/view/600/405> [in Indonesian]

Stanhope M, Lancaster J. Public health nursing: Population-centered health care in the community. 8th ed. Mosby, MO: Elsevier Mosby; 2012.

Statistics Indonesia. Birth rate for women aged 15-19 by region of residence, 2018 [cited 2022 Oct 12]. Available from: URL: https://www.bps.go.id/indikator/indikator/view_data/0000/data/1612/sdgs_5/1 [in Indonesian]

Statistics Indonesia. Prevalence rate of using all methods of contraception methods (CPR) in couples of reproductive age (PUS) aged 15-49 years who are married (percent), 2012-2017, 2020a [cited 2022 Oct 12]. Available from: URL: <https://www.bps.go.id/indikator/30/1395/1/angka-prevalensi-penggunaan-metode-kontrasepsi-cpr-semua-cara-pada-pasangan-usia-subur-pus-usia-15-49-tahun-yang-berstatus-kawin.html> [in Indonesian]

Statistics Indonesia. Percentage of unmet need for KB (Family planning/FP needs that are not fulfilled) by province (percent), 2012-2017, 2019 [cited 2022 Oct 12]. Available from: URL: <https://www.bps.go.id/indikator/30/1326/1/persentase-unmet-need-kb-kebutuhan-keluarga-berencana-kb-yang-tidak-terpenuhi-menurut-provinsi.html> [in Indonesian]

Statistics Indonesia. Total population results of projection by province and gender (thousands of people) 2018-2020, 2020b [cited 2022 Oct 12]. Available from: URL: <https://www.bps.go.id/indikator/12/1886/1/jumlah-penduduk-hasil-proyeksi-menurut-provinsi-dan-jenis-kelamin.html> [in Indonesian]

Sulistiyawati A. Relationship between types of contraceptive devices and reproductive health disorder, 2018 [cited 2022 Oct 09]. Available from:

URL: <http://jurnalmadanimedika.ac.id/JMM/article/view/6/13> [in Indonesian]

Sundari T, Wiyoko PF. The relationship between the role of health workers and the behavior of using contraceptive devices at the Samarinda City Health Center, 2020 [cited 2022 Oct 09]. Available from: URL: <https://journals.umkt.ac.id/index.php/bsr/article/view/1496/674> [in Indonesian]

Susanti S, Hutasoit R. Factors influencing the unsuccessful family planning program in Siaro Village, Siborongborong District, 2019 [cited 2022 Oct 09]. Available from: URL: <https://jurnal.unimed.ac.id/2012/index.php/jce/article/view/14738/12037> [in Indonesian]

Sutopo A, Arthati DF, Rahmi UA. Study of indicators of Sustainable Development Goals (SDGs), 2014 [cited 2022 Oct 09]. Available from: URL: <https://www.bps.go.id/publication/download.html?nrbvfeve=ZGIwN2U1Yjg5OTFjNWYzM2MwZjEzMDIj&xzmn=aHR0cHM6Ly93d3cuYnBzLmdvLm1kL3B1YmxpY-2F0aW9uLzIwMTQvMTAvMDYvZGIwN2U1Yjg5OTFjNWYzM2MwZjEzMDIjL2thamlhbi1pbmRpa2F0b3Itc3VzdGFpbmFibGUtZG-V2ZWxvcG1lbnQtZ29hbHMtLXNkZ3MtLmh0bWw%3D&twoad-fnoarfeauf=MjAyMy0wNi0yOSAyMTowMDo1Ng%3D%3D> [in Indonesian]

Tatuhe S, Laloma A, Pesoth WF. The role of local government in controlling population growth (A study at the family planning agency and women's empowerment in Talaud Islands District), 2016 [cited 2022 Oct 09]. Available from: URL: <https://ejournal.unsrat.ac.id/index.php/jap/article/view/12038/11627> [in Indonesian]

Tessema GA, Gomersall JS, Mahmood MA, Laurence CO. Factors determining quality of care in family planning services in Africa: a systematic review of mixed evidence. *PLoS One*. 2016; 11: e0165627.

Trianziani S. Implementation of the family planning program by family planning field officers (PLKB) in Karangjaladri Village, Parigi District, Pangandaran Regency, 2018 [cited 2022 Oct 09]. Available from: URL:

<https://jurnal.unigal.ac.id/moderat/article/view/1812/1490> [in Indonesian]

Wakuma B, Mosisa G, Efa W, *et al.* Postpartum modern contraception utilization and its determinants in Ethiopia: a systematic review and meta-analysis. *PLoS One* 2020; 15: e0243776.

Wandera SO, Kwagala B, Nankinga O, *et al.* Facilitators, best practices and barriers to integrating family planning data in Uganda's health management information system. *BMC Health Serv Res* 2019; 19: 327.

Wulandari T. Public perception and participation of family planning programs (Research in Panggungharjo Village, Sewon District, Bantul Regency), 2008 [cited 2022 Oct 09]. Available from: URL: <https://journal.uny.ac.id/index.php/dimensia/article/view/3399/2884> [in Indonesian]

Yuliana, Rohaya, Riski M. Pregnancy spacing relations, husband support, and officer support family planning services with the selection of long-term contraceptive methods (MKJP) at PMB Fauziah Palembang in 2021, 2022 [cited 2022 Oct 09]. Available from: URL: <http://ji.unbari.ac.id/index.php/ilmiah/article/view/1909/1116> [in Indonesian]