

# Practice of Female Sterilization in India: A Gender Disparity Approach

## *Abstract*

Globally, India became the first developing nation to start a government supported family planning approach in 1952. The programme has completed more than seven decades with change in policy approach from clinical based to target-free approach. Despite of emphasizing on choice based contraceptive methods women bear the burden of family planning with extensive practice of female sterilization throughout the country. With this backdrop, the review paper by using secondary sources seeks to highlight the increasing trend of female sterilization compared to male sterilization and other family planning methods in India. It further attempts to analyze the factors associated with the rising trend of female sterilization by using a gender lens. Empirical evidences show wide spread family planning burden borne by women whether in terms of female sterilization or use of other contraceptives. Gender biasness is firmly connected to the provision, adoption and utilization of the family planning services in India.

---

Key words: Female sterilization, Family planning, Contraception

## **Introduction**

History has recorded, women suffered from many health adversities from the consequences of unplanned, un-spaced and multiple pregnancies. But, the emergence of modern contraception and family planning practices as a panacea effectively managed to plan pregnancy and childbirth and thereby enhancing women's health and potentiality (Schuler et al.1996; Coleman and Lemmon 2011; Sayeed et al.2014; Gayle and Hamnergren 2017; UNs 2022). Acknowledging the significance of using contraceptives, the IPCD (International Conference on Population and Development) was conducted in 1994, London Summit in 2012 and Sustainable Development Goals were adopted in the year 2015 to ensure sexual and reproductive rights for all including

women with rights and choices. Due to such concerted efforts, fertility rate has declined to 2.3 per woman globally, as per the United Nation's published "World Family Planning Report-2022" in 2021. Total 45% women used modern contraceptives with highest contraception prevalence between the age group of 25 and 44. Now countries across the globe aim to achieve Sustainable Development Goals (SDGs)'s target of meeting 75% of contraceptive demand worldwide by the year 2030 (WHO, 2017). In India also we see noticeable progress with regard to family planning and as per WHO (2021) and MOHFW (2022) reports the country is in the line to achieve the Sustainable Development Goals (SDGs). However, despite such achievements, extensive practice of female sterilization has raised question against the choice and right based target free family planning approach of the nation. The family planning programme of India has been successful in reducing fertility rate but has drastically failed to achieve gender equality. Lack of male involvement is another major issue that has been raised by many (Sanger 2018). In this context, Matthews et al (2009) noted that the decline of fertility in India is attributed to wide spread acceptance of female sterilization. This has resulted a tendency of early marriage, early pregnancies with shorter birth intervals and rise of sterilization among young women are combined together. This shows, on the one hand we have seen progress in terms of expansion of contraception basket with wide choices to control fertility, while on the other hand, gender imbalance in terms of contraceptive adoption and rising burden of sterilization on women with compromised safety concerns are evident throughout the country. Gender biasness in the adoption of family planning methods in India is clearly visible with rising female sterilization. However, very few of the studies have focused on the existing disparity in of terms adoption of female sterilization compared to male sterilization and other modern methods of contraception. With this backdrop, the current paper intends to highlight India's extensive practice of female sterilization with associated factors by using a gender lens.

### **Aim of the Paper**

The present review paper based on secondary sources attempts to understand the trend of female sterilization in India by using the NFHS data. It further emphasizes on analyzing the factors associated with extensive adoption of female sterilization over other methods of family planning in India. Though widespread literature is available regarding family planning and contraceptive practice in India, relatively less research is available to understand the rising trend of female

sterilization and the associated factors. Instead of analyzing use and non-use of different contraceptive methods, this paper has exclusively focused on the practice of female sterilization from a gender lens. By using NFHS data, the study explores the present and past context of contraceptive use, especially of female sterilization in India. The paper has highlighted both historical and socio-cultural factors that have created a culture of reliance on female sterilization.

### **Trend of Female Sterilization in India**

According to WHO, female sterilization is a surgical procedure where fallopian tubes are permanently occluded to prevent pregnancy. It is also called tubal ligation or tubal occlusion. Couple prefer female sterilization as an attractive choice when they have desired number of children. However, as the process is intended as permanent method, includes a surgical procedure and the associated risks therefore, needs trained personnel for service delivery. The clients should make a voluntary and informed choice about it with proper knowledge and availability of the other methods and offer of counselling. WHO in its 1992 report stated female sterilization as the most widely used contraceptive worldwide and predicted that more than 100 million female sterilization will be conducted in the developing nations in the next 20 years. In 2019, United Nation's report declared female sterilization as the most commonly adopted family planning method, globally. Total number of women who used contraceptives in 2019, 23.7% of them went for sterilization. Asia is the only region that showed an increasing trend of female sterilization while in European and North American countries, male sterilization is equal or higher than female sterilization.

Till the year 2017, the contraception methods in India were limited to oral pills, condoms and intrauterine devices (WHO, 2021). Then the Mission Parivar Vikas (MPV) program at district level started where high fertility with low use of modern contraception prevailed during the National Health Policy-2017. To optimize the supply side for the family planning commodities, Family Planning Logistic Management Information System (FPLMIS) was also launched. by the year 2020, India successfully achieved use of modern contraception rate of 54.3% and increased satisfied demand of modern contraceptives of 74%.

### **Table 1. Knowledge of contraceptive methods among women**

Percentage of married women who knew any contraceptive method				
Methods	NFHS- 2	NFHS- 3	NFHS-4	NFHS- 5
Female sterilization	98.2	98.4	97.7	98.8
Male sterilization	89.3	83.2	84.6	86.0
IUD	70.6	74.3	76.7	86.0
Pills	79.5	87.2	88.3	93.1
Condom	71.0	76.1	81.9	90.3
Any traditional method	48.9	57.7	65.5	84.4

According to NFHS-1, in 1993-94, knowledge for male and female sterilization was higher than any other methods among married women. Out of total contraceptive adoption, 76% accounted for male and female sterilization compared to only 6% use of modern temporary methods. As the above table mentions, knowledge of female sterilization has always remained highest amongst all contraceptive methods followed by male sterilization and intra uterine device method.

**Table 2.** Current use of different family planning methods among women

Percentage of married women (15-49 age) using different methods		
Methods	NFHS-4 (2015-16)	NFHS- 5 (2019-21)
Female sterilization	36.0	37.9
Male sterilization	0.3	0.3
IUD	1.5	2.1
Pills	4.1	5.1
Condom	5.6	9.5
Injectable	0.2	0.6
Total modern method	47.8	56.5
Any method	53.5	66.7

The above table clearly shows, modern contraceptive use among married women has increased to more than 56% in 2021 from 37% in 1993 as per NFHS-5 data. However, female sterilization alone accounted for total 38% of modern contraception adoption whereas male sterilization was only at the rate of 0.3 percent. Data also showed, 8 out of 10 female sterilizations were conducted in a public healthcare facility. The NFHS-5 also raised concern on the early age adoption of sterilization with an average of 25.7 years of age. Gender biasness is clearly visible in this report when it says men are more exposed to family planning messages but more than one-third of them believe family planning is women's business. Similar to this finding, many studies have found that in India husband is the primary decision maker of family planning and contraception use (Tiwari & Tiwari, 2011; Tenkorang 2018; Quarrie and Aziz, 2021) but when it comes to adopt a method it is always a woman who bears the burden. Bansal et al (2022) said that in India, sterilization of women increases particularly after the age of 27 and half of women more than 36 years old are sterilized. Women in rural areas sterilized early than urban areas. Women with no education sterilized early in their 30s while highly educated women are mostly sterilized after the age of 40. High rate of sterilization is among the poor. For many, poor quality of care during service delivery and sterilization procedure is another concern particularly at the public healthcare (Das and Contractor, 2014; Sivaram 2022). Incidents of coercion based sterilization camps with little value on women's lives have happened several times in the country (Das and Contractor, 2014). In this context, Mudi and Pradhan (2023) in their study among Juang tribes of Keonjhar district, Odisha concluded that unfavorable attitude towards adoption of contraception, use of modern spacing method is negligible and female sterilization is the most practiced method. However, contrast to this, Oliveira et al (2014) stated Muslim women prefer traditional and temporary methods over sterilization compared to women of other religious communities. Women having secondary and higher education mostly prefer modern and temporary contraceptive methods. Therefore, education is found to be positively associated with the use of modern contraceptives and their accessibility for women. Rising level of education and exposure to mass-media messages among women increase the use of temporary and modern methods instead of permanent methods like sterilization. Especially working women who think healthcare is their own responsibility mostly go for sterilization compared to women who are involved in joint decision of family planning with their husbands. Another finding was that younger women having one or more living sons, belonging to a marginal or poor community,

disadvantaged ethnic community like scheduled tribe having less opportunities for modern contraceptive choices are ultimately left with female sterilization option.

Though, the government introduced more modern contraception methods like progestin and injectable to encourage spacing methods, NFHS-5 shows extensive adoption of female sterilization throughout the country. This shows the futile efforts of the government in bridging the gender imbalance of family planning practices. Matthew et al (2009) stated that aim of lower fertility rate has been achieved but the increase uptake of female sterilization at the expense of poor adoption of other spacing methods. Therefore, the situation necessitates the understanding of factors associated with this rising practice of female sterilization in the country.

### **Factors Associated with Rising Female Sterilization Adoption**

Rising female sterilization in the country has historical background strongly associated with the changes adopted in the family planning strategy at the national level. Harkavy and Roy (2007) noted during 1970s and 1980s, poor family planning performance in India was caused by high illiteracy among women and their emotional and economic dependence on the eldest male members of the family. Indian family planning model of this period had two hallmarks; one was the time-bound target based births control measures offered by government through health workers. This was more applicable to promote sterilization than spacing methods. Second was government's use of large monetary and incentive based sterilization promotion. Therefore, research shows that family planning policies of India were driven by numerical target at state level during 1960s and 1970s focusing on population control. Target free approach was adopted following the IPCD (1994), but in practice health officials and workers were assigned targets for every contraceptives including female sterilization that led to coercion and poor quality of services. For instance, ASHA workers under NRHM are encouraged with incentives to bring women for sterilization or IUD. Although cash incentives are provided for male sterilization, vasectomies are almost absent in India's family planning. Despite the high level of awareness on family planning methods and availability of wider choices of modern contraception methods by the government efforts, the level of use for spacing and reversible modern contraceptives is low with dominant adoption of female sterilization. Because, women are not well aware of other range of methods, official motivators and health workers do not encourage for using other methods and lastly, most of the women go for sterilization as they want to end childbearing

(Dharmalingam, 1995). Negative attitude towards vasectomy is perhaps a major reason behind rising adoption of female sterilization (Srivastava 2011; Thakur 2011; Das 2021). The intensive family planning drive that resulted out of political will during national emergency (1976) left a bitter experience against male sterilization among country's population with delusion of side effects. After 1980s, vasectomies sharply declined and government focus and efforts shifted towards female sterilization (Das 2021). A spectrum of coercive practices is identified by many researchers (Das and Contractor, 2014) both at the policy and implementation level. These include providing incentives, setting targets in family planning, using social pressure etc. Some actions are clearly coercive while some other have the potential to be coercive.

Apart from the impacts of national level policy changes, female sterilization practice got accentuated throughout the country under the influence of socio-cultural factors. The adoption of a particular contraceptive methods is influenced by multitude of factors including perceived socio-cultural and psychological notion, economic benefits, awareness about available methods, and benefits of a method. Contraceptive practice is deeply related to socio-cultural contexts and research from different parts of the world shows that women's fertility and adoption of contraception are influenced by socio-cultural and gender norms (Schuler 1996; Pachauri and Santhya 2002; DeRose and Ezah, 2010; Jejeebhoy et al.2014; Loganathan & Huirem,2016; Bongaarts and Hardee, 2017; Elmusharaf et al 2017; Pakrashi et al. 2021; Ononokpono et al. 2021). Dharmalingam (1995) stated, socio-cultural factor like unequal relation between husband and wife determines the type of contraceptive adoption and Pakrashi et al (2021) viewed patriarchal notion giving more value to manhood and thereby making female sterilization more acceptable. Similarly, many studies identified poor spousal communication over contraception (Thaku, 2011; MoHFW 2022). Illiteracy and low level of education hinders contraceptive use (DeRose & Ezech, 2010; Seilen 2020; Mudi and Pradhan 2023) while contraception use is higher in educated community (DeRose and Ezah 2010; Ononokpono et al. 2021). Attitudes of families and communities influence the contraceptive demand and use (DeRose and Ezah, 2010; Jejeebhoy et al.2014). Several studies found women's limited engagement in the healthcare system and lack of family planning counselling to be major obstacles for integrative family planning services (Rajan et al 2016). Many have viewed that fertility is culturally constructed (Unithan ,2011; Thakur 2011; Jejeebhoy et al. 2014; Elmusharaf et al 2017) and pro fertility norms obstruct contraceptive use among women (Elmusharaf et al 2017). Societal factors such as

community misperception about contraceptives affect practices (Palo 2020; Sedlander et al 2021), stigma over contraceptives (Schuler 1996; Singh et al 2012), early marriage (Pachauri and Santhya), and believing family planning as women's responsibility (Das, 2021) negatively affect family planning among women. Gender inequality existing in society favors men in terms of sexual and reproductive decisions while state sponsored family planning programmes focus on women as clients. Jain (2021) mentioned, women discontinue modern methods of contraception due to side effects, health concern and fertility related reasons other than wanting to become pregnant. This perhaps a reason for adopting a permanent method like sterilization. Similarly, Parsekar et al. (2021) mentioned that adoption of female sterilization may be associated with not favoring temporary modern methods also. All these above mentioned socio-cultural factors have a clear depiction of the existing harmful and discriminatory social and gender norms that significantly deter women's autonomy and decision making by imposing passive sexual roles and obligations on them (UNFPA, 2022). Though Indian policy language shifted to a right based approach, it seems to be translated into narrow implementation. Therefore, these findings reflect on the need for re-examining family planning policies and programmes to monitor the rising trend of female sterilization.

In this direction, World Health Organization (WHO, 2021) viewed, most importantly, contraception should be consent based not coercion and it should not be missed out. The female sterilization should be introduced as one of the several contraceptive options and the couple who have decided to end childbearing, both male and female sterilization should be made available to them along with long lasting temporary methods. Along with this, identifying possible avenues for improved access and areas of special attention are most needed. The coercive practices violating human rights and informed reproductive decisions needs to be monitored. Matthews et al (2009) in their example of Bangladesh said, the country's sterilization rate was controlled by emphasizing reversible methods of contraception as an alternative. Therefore, envision of shifting towards spacing methods requires serious attention for the significance of spacing in childbearing which is more than provision of broad range of services. Garg & Singh (2014) mentioned, providing technical solution for fertility control can only fulfill the practical needs of the population. Therefore, strategic needs focused on long-run effectiveness will enable women choosing contraceptives from range of options, empowering women for making reproductive health decisions and most importantly enabling men to take and share family planning

responsibilities. Measuring gender specific outcomes can be helpful in bringing gender equality in family planning practice. As many studies have confirmed strong relationship between women empowerment and use of different family planning methods (Garg & Singh 2014; Sanger 2018), now it is pivotal to understand that promoting women empowerment will give them the ability to decide about their reproductive and sexual health. Women empowerment with closing the gender gap in education is required.

## **Conclusion**

Extensive analysis about the family planning practices in India shows substantial strides with comprehensive programmes and shifting of policy approach towards rights and choice based. However, it seems that continued heavy reliance on female sterilization in the availability of numerous contraception choices has pictured a stereotyped women-oriented family planning programme in the country. The study illustrates about the high time to realize the significance of achieving sexual and reproductive rights with effective programme implementation to serve target free, choice based and voluntary reproductive service provision.

## **Reference**

- Ali, Burhan. (2011). Salafism and Overpopulation: A Challenge for Indonesia. Ran, F., Unisa, Sayeed, Sekher, T. V. (Edition). Population, Gender and Reproductive Health. *Rawat Publication, Jaipur Edition.*
- Allendorf, K. (2013). Going Nuclear? Family Structure and Young Women's Health in India, 1992–2006. *Demography*, Volume 50, Issue 3, Pp 853-880.
- Amonker, R. G. (1975). Family Planning Performance in India. *Asian Survey*, Volume 15, Issue 7, Pp 586-597.
- Bansal, A., & Dwivedi, L. K. (2020). Sterilization Regret In India: Is Quality Of Care A Matter Of Concern?. *Contraception and Reproductive Medicine*, Volume 5, Issue 13, Pp 1-12.

- Char, A., Saavala, M., & Kulmala, T. (2010). Influence of Mothers-In-Law On Young Couples' Family Planning Decisions in Rural India. *Reproductive Health Matters*, Volume 18, Issue 35, Pp 154-162.
- Dharmalingam, A. (1995). The Social Context of Family Planning in A South Indian Village. *International Family Planning Perspectives*, Pp 98-103.
- Dixit, A., Averbach., Yore, J., Kully, G., Ghule, M., Battala, M., ... & Raj, A. (2019). A Gender Synchronized Family Planning Intervention for Married Couples in Rural India: Study Protocol for The Charm2 Cluster Randomized Controlled Trial Evaluation. *Reproductive Health*, Volume 16, Pp 1-17.
- Elmusharaf, K., Byrne, E., & O'Donovan, D. (2017). Social and Traditional Practices and Their Implications for Family Planning: A Participatory Ethnographic Study in Renk, South Sudan. *Reproductive Health*, Volume 14, Pp1-11.
- Ewerling, F., Mcdougal, L., Raj, A., Ferreira, L. Z., Blumenberg, C., Parmar, D., & Barros, A. J. (2021). Modern Contraceptive Use Among Women in Need of Family Planning in India: An Analysis of the Inequalities Related to The Mix of Methods Used. *Reproductive Health*, Volume 18, Issue 1, Pp 173.
- Family Planning Division. (2021). Annual Report- Family Planning 2020-21. Ministry of Health and Family Welfare, *Government of India*.
- World Health Organization. (1992). *Female Sterilization: A Guide to Provision of Services*. World Health Organization.
- Follett, C. (2020). Neo-Malthusianism and Coercive Population Control in China and India. *Cato Institute, Policy Analysis*, (897).
- Freedman, R. (1987). The Contribution of Social Science Research to Population Policy and Family Planning Program Effectiveness. *Studies in Family Planning*, Volume 18, Issue 2, Pp 57-82.
- Garg, S., & Singh, R. (2014). Need for Integration of Gender Equity in Family Planning Services. *Indian Journal of Medical Research*, 140(Suppl 1), S147-S151.
- Hardee, K., Harris, S., Rodriguez, M., Kumar, J., Bakamjian, L., Newman, K., & Brown, W. (2014). Achieving The Goal Of The London Summit On Family Planning By Adhering To Voluntary, Rights-Based Family Planning: What Can We Learn From Past

Experiences With Coercion?. *International Perspectives On Sexual and Reproductive Health*, 40(4), 206-214.

- Jain, A. K., & Ross, J. A. (2012). Fertility Differences Among Developing Countries: Are They Still Related To Family Planning Program Efforts And Social Settings?. *International Perspectives On Sexual and Reproductive Health*, Pp 15-22.
- Jejeebhoy, S. J., Santhya, K. G., & Zavier, A. F. (2014). Demand for Contraception to Delay First Pregnancy Among Young Married Women in India. *Studies in Family Planning*, Volume 45, Issue 2, Pp 183-201.
- Kuang, B., & Brodsky, I. (2016). Global Trends in Family Planning Programs, 1999–2014. *International Perspectives On Sexual and Reproductive Health*, Volume 42, Issue 1, Pp 33-44.
- Kuhlmann, A. S., Gavin, L., & Galavotti, C. (2010). The Integration of Family Planning with Other Health Services: A Literature Review. *International Perspectives On Sexual and Reproductive Health*, Pp 189-196.
- Lancet, T. (2017). Family Planning: Accelerating The Way Ahead. *Lancet, London, England*, Volume 390 (10112), Pp 2527.
- Ledbetter, R. (1984). Thirty Years of Family Planning in India. *Asian Survey*, Volume 24, Issue 7, Pp 736-758.
- Lin, N., & Hingson, R. (1974). Diffusion of Family Planning Innovations: Theoretical and Practical Issues. *Studies in Family Planning*, Volume 5, Issue 6, Pp 189-194.
- Lindstrom, D. P., & Hernández, C. H. (2006). Internal Migration and Contraceptive Knowledge and Use in Guatemala. *International Family Planning Perspectives*, Pp 146-153.
- Loganathan, Kathiresan & Huiem, Ratna. (2016). Reproductive and Child Healthcare Services: Examining Its Utilization in Northeast India. *Bloomsbury Publication*.
- Macquarrie, K. L., & Aziz, A. (2021). Women's Decision-Making and Contraceptive Use in Pakistan. *Sexual and Reproductive Health Matters*, Volume 29, Issue 2, Pp 212-229.
- Maharatna, A. (2002). India's Family Planning Programme: An Unpleasant Essay. *Economic and Political Weekly*, Pp 971-981.
- Mauldin, W. P. (1975). Family Planning Programs and Fertility Declines in Developing Countries. *Family Planning Perspectives*, Pp 32-38.

- Ministry of Health and Family Welfare. (2022, March). *National Family Health Survey (NFHS-5), 2019-21 India Report*. [2019-21 India National Family Health Survey \[FR375\] \(Dhsprogram.Com\)](https://fr375.dhsprogram.com)
- Mudi, P. K., & Pradhan, M. R. (2023). Attitude and Determinants of Contraceptive Use Among the Juang Tribe: A Cross-Sectional Study in Odisha, India. *Clinical Epidemiology and Global Health*, 24, 101448.
- Oliveira, I. T. D., Dias, J. G., & Padmadas, S. S. (2014). Dominance of Sterilization and Alternative Choices of Contraception in India: An Appraisal of the Socioeconomic Impact. *Plos One*, 9(1), E86654.
- Ononokpono, D. N., Odimegwu, C. O., & Usoro, N. A. (2020). Contraceptive Use In Nigeria: Does Social Context Matter?. *African Journal of Reproductive Health*, Volume 24, Issue 1, Pp 133-142.
- Pachauri, S., & Santhya, K. G. (2002). Reproductive Choices for Asian Adolescents: A Focus On Contraceptive Behavior. *International Family Planning Perspectives*, Pp 186-195.
- Patel, T. (1963). Some Reflections On the Attitude of Married Couples Towards Family Planning in Ahmedabad. *Sociological Bulletin*, Volume 12, Issue 2, Pp 1-13.
- Pathare, R. (1966). The Family Planning Programme: A Sociological Analysis. *Sociological Bulletin*, Volume 15, Issue 2, Pp 44-62.
- Rajan, S., Speizer, I. S., Calhoun, L. M., & Nanda, P. (2016). Counseling During Maternal and Infant Health Visits and Postpartum Contraceptive Use in Uttar Pradesh, India. *International Perspectives On Sexual and Reproductive Health*, Volume 42, Issue 4, Pp 167.
- Richey, L. A. (2004). Construction, Control and Family Planning in Tanzania: Some Bodies the Same and Some Bodies Different. *Feminist Review*, Volume 78, Issue 1, Pp 56-79.
- Riley, T., Sully, E., Ahmed, Z., & Biddlecom, A. (2020). Estimates of The Potential Impact of The COVID-19 Pandemic On Sexual and Reproductive Health in Low-And Middle-Income Countries. *International Perspectives On Sexual and Reproductive Health*, Volume 46, Pp 73-76.

- Robinson, W. C., & Ross, J. A. (2007). Family Planning: The Quiet Revolution. *The Global Family Planning Revolution*, Pp 421.
- Rodríguez, M. I., Say, L., & Temmerman, M. (2014). Family Planning Versus Contraception: What's in A Name? *The Lancet Global Health*, Volume 2, Issue 3, E131-E132.
- Roy, T.K., Guruswamy, M., Arokiaswamy. (2004). Population Health and Development in India: Changing Perspective. *Rawat Publication, Jaipur Edition*.
- Sahay, Arushi. Gender and Family Planning: A Close Reading of Forty Years of India's Family Planning Policies (1977-2019). *Social and Political Research Foundation, India*.
- Sangar, S. (2018). Bringing A Women's Perspective to Family Planning. *Current Science*, Volume 115, Issue 4, Pp 633-637.
- Schuler, S. R., Hashemi, S. M., Cullum, A., & Hassan, M. (1996). The Advent of Family Planning as A Social Norm in Bangladesh: Women's Experiences. *Reproductive Health Matters*, Volume 4, Issue 7, Pp 66-78.
- Sedgh, G., Bankole, A., Oye-Adeniran, B., Adewole, I. F., Singh, S., & Hussain, R. (2006). Unwanted Pregnancy and Associated Factors Among Nigerian Women. *International Family Planning Perspectives*, Pp 175-184.
- Senderowicz, L., & Higgins, J. (2020). Reproductive Autonomy Is Nonnegotiable, Even in The Time of Covid-19. *International Perspectives On Sexual and Reproductive Health*, Volume 46, Pp 147-151.
- Singh, A., Ogollah, R., Ram, F., & Pallikadavath, S. (2012). Sterilization Regret Among Married Women in India: Implications for The Indian National Family Planning Program. *International Perspectives On Sexual and Reproductive Health*, Pp 187-195.
- Singh, P., Singh, K. K., & Singh, P. (2021). Factors Explaining the Dominion Status of Female Sterilization in India Over the Past Two Decades (1992-2016): A Multilevel Study. *Plos One*, 16(3), E0246530.
- Singh, S. K., Kashyap, G. C., Sharma, H., Mondal, S., & Legare, C. H. (2023). Changes in Discourse On Unmet Need for Family Planning Among Married Women in India: Evidence from NFHS-5 (2019–2021). *Scientific Reports*, Volume 13, Issue 1, 20464.
- Srinivasan, K. (2006). Population Policies and Family Planning Programmes in India: A Review and Recommendations. *IIPS Newsletter*, Volume 47, Issue 1-2, Pp 6-44.

- Srinivasan, K., Saxena, P. C., Roy, T. K., & Verma, R. K. (1991). Effect of Family Planning Program Components On Contraceptive Acceptance in Four Indian States. *International Family Planning Perspectives*, Pp 14-24.
- Tiwari and Tiwari (2011). Gender Bias and Family Planning Programme in India. Pal, Manoranjan, Bharati, Premananda, Ghosh, Bholanath, Vasulu, T.S. (2011). Gender and Discrimination: Health, Nutritional Status, And Role of Women in India (Edition). *Oxford India Paperbacks*.
- United Nations Department of Economic and Social Affairs. (2023). World Family Planning 2022: Meeting The Changing Needs for Family Planning: Contraceptive Use by Age and Method. *United Nation*.
- Unnithan, Maya. (2011). Learning from Infertility: Gender, Health Inequalities and Faith Healers in Women's Experiences of Disrupted Reproduction in Rajasthan. Ed. Doron, ASSA, Broom, Alex. (2011). Health, Culture, And Religion in South Asia (Critical Perspective). Routledge Publication.
- Vasudev, C. (2016). 'Meeting The Unmet': Valuable Lessons in Family Planning.
- Vellakkal, S., Gupta, A., Khan, Z., Stuckler, D., Reeves, A., Ebrahim, S., ... & Doyle, P. (2017). Has India's National Rural Health Mission Reduced Inequities in Maternal Health Services? A Pre-Post Repeated Cross-Sectional Study. *Health Policy and Planning*, Volume 32, Issue 1, Pp 79-90.
- Warwick, D. P. (2023). Culture and The Management of Family Planning Programs. *Medical Anthropology*, Pp 359-376.
- World Health Organization. (2020). Policies, Programme and Services for Comprehensive Abortion Care in South-East Asia Region.