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REVIEW ARTICLE

Gynecology

Informed consent and ethical issues pertaining to female sterilization—Scoping review

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Abstract

Background: Female sterilization, a safe, permanent method of contraception that blocks the fallopian tubes, has been in use since the 19th century. The procedure necessitates informed consent, a critical step that has been marred by reports of forced sterilization since World War II. These incidents often stem from inadequate consent processes where ethical principles are overlooked or deliberately flouted. The persistent issue of forced sterilization, primarily attributable to a flawed informed consent process, highlights significant ethical concerns.

Objectives: This scoping review aimed to identify the ethical challenges associated with the informed consent process for female sterilization, including instances of forced sterilization.

Search Strategy: The review employed a comprehensive electronic search across multiple databases, including PubMed, Scopus, Web of Science, Google Scholar, and ProQuest Central, targeting literature published in English between January 2000 and December 2021. The search strategy utilized key terms related to informed consent, ethical issues, and female sterilization, following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Scoping Reviews (PRISMA-ScR) methodology for database search and screening.

Selection Criteria: The search resulted in the inclusion of 55 published articles for this review. Studies were selected if they focused on informed consent for female sterilization and reported on forced or coerced sterilization involving mentally competent women aged 18 years and older. Exclusions were made for studies on women younger than 18 years, those related to emergency procedures, and non–English language publications.

Data Collection and Analysis: A two-stage screening process was used to assess the relevance of the identified studies, with independent reviewers evaluating titles, abstracts, and full texts. Data were extracted using a predefined tool, and discrepancies were resolved through discussion. The analysis focused on summarizing the ethical issues identified and recommendations for improving the consent process.

Main Results: The review identified vulnerable populations, particularly women reliant on the state or government for health care, as being at higher risk of forced sterilization. Cases of sterilization without consent, under coercion, sedation, or through inducements/incentives have been reported. Recommendations from international obstetrics and gynecology societies, health organizations, human rights bodies, and local governments have been issued in an attempt to improve the consent process. Notably, the United States implemented a Medicaid consent form in the 1970s, which has yet to be revised, attracting significant criticism for some of its components. Meanwhile, low- and middle-income countries lack standardized tools to address complaints related to this issue.

Conclusion: This review identifies persistent ethical challenges in the informed consent process for female sterilization globally, with forced sterilization disproportionately affecting vulnerable populations. The review underscores the urgent need for the development and implementation of standardized consent tools, with ongoing review, to protect women's autonomy and prevent unethical practices, especially in low- and middle-income countries.

KEYWORDS
coerced sterilization, ethics, female sterilization, forced sterilizations, informed consent, reproductive justice

1 | INTRODUCTION

1.1 | Background

Female sterilization, often known as tubal ligation, is a permanent contraceptive method involving the blockage of the fallopian tubes to prevent fertilization. It can be performed through various methods, including abdominally via laparoscopy, laparotomy, or mini-laparotomy; transvaginally (though not recommended) via colpotomy and culdoscopy; or transcervically (experimental) via hysteroscopy.[1] Since its introduction in the 19th century by James Blundell, bilateral tubal ligation has become increasingly popular, with a mid-20th century complication rate estimated at about 1%.[2] Today, female sterilization is one of the most common contraceptive methods, with approximately 23.7% of contraceptive users worldwide choosing this option, leading to around 219 million women being sterilized annually.[3]

As with all medical procedures, informed consent is essential before performing female sterilization. It is crucial that women receive thorough counseling regarding the procedure, including its risks, benefits, and alternatives, and that this counseling is properly documented, especially as female sterilization is permanent. According to the World Health Organization (WHO), everyone has the right to control their health and body, which includes sexual and reproductive rights, and to be free from interference, such as nonconsensual medical treatment or experimentation.[4] Section 27 of the Constitution of South Africa guarantees the right to access healthcare services, including reproductive health care.[5] The International Criminal Court considers forced or coerced female sterilization a crime against humanity.[6] These human rights protections at high levels emphasize the importance of obtaining informed consent before such procedures to ensure that they are voluntary and not coerced.

The primary purpose of informed consent is to uphold the ethical principle of autonomy in medical practice. Beauchamp and Childress define autonomy as "self-rule that is free from controlling interferences by others and from limitations, such as inadequate understanding, that prevent meaningful choice."[7] Similarly, Kantian moral philosophy describes autonomy as the capacity to act according to objective morality rather than personal desires.[8] Autonomy grants patients the right to choose, accept, or refuse medical interventions. Securing informed consent also demonstrates respect for patient autonomy and serves as a critical safeguard against claims of coercion or forced medical procedures, as encapsulated by the Latin phrase "volenti non-fit injuria," meaning "to one who is consenting, no wrong is done.".[9]

Claims of forced female sterilization date back to World War II, when the Nazis conducted sterilization procedures on Jewish, Roma, and Sinti people. Other historical instances include the Imperial Japanese Army's actions in Korea and the collaboration between the Indian Health Service and physicians against Native Americans.[6] Although World War II ended in 1945, reports of coerced female sterilization continue globally (Figure 1). Investigations are currently underway in Canada, involving 100 women from six provinces, and in South Africa, focusing on women living with HIV in KwaZulu-Natal and Gauteng provinces.[9,10] The persistence of this issue (Figure 2)

FIGURE 1 Forced sterilization: A global issue.

highlights the urgent need to examine the informed consent process for female sterilization and its associated ethical concerns. By doing so, clinicians can improve their counseling of patients on this procedure, ensuring that women's reproductive rights are fully respected and protected.

1.2 | Objectives

In this scoping review, we aimed to answer the research question: what are the ethical issues pertaining to consent for female sterilization? The objectives were to determine ethical issues pertaining to female sterilization, identify factors associated with coerced or forced sterilization, and possibly inform the development of tools to obtain and improve the consent process for female sterilization.

2 | METHODS

A scoping review of peer-reviewed and gray literature on the ethical issues pertaining to consent for female sterilization was conducted. This review was guided by Arksey and O'Malley's scoping review framework, which stipulates the steps: identifying the research question, identifying relevant studies, study selection, charting the data, and then collating, summarizing, and reporting the results.[11] The protocol for the scoping review was approved by the University of Pretoria Faculty of Health Sciences Research Ethics Committee (607/2022). The protocol was registered at OSF Registries (https://doi.org/10.17605/OSF.IO/4AD2X).

2.1 | Eligibility criteria

Studies were included if they focused on the informed consent process for female sterilization and reported on forced or coerced sterilization involving mentally competent women aged 18 years or older. Exclusions were applied to studies of women younger than 18 years, those related to emergency procedures, and non–English language publications. Primary studies with a clear empirical base utilizing qualitative, quantitative, or mixed methods and abstracts from conferences published in peer-reviewed journals and in gray literature were included. Studies were identified by searching the literature published in English from January 2000 to December 2021.

Information sources

An electronic search was conducted across multiple databases, including PubMed, Scopus, Web of Science, Google Scholar, and ProQuest Central. Additional sources included websites such as the WHO and government sites for policies and guidelines on informed consent for female sterilization.

Search strategy: Include line-by-line search strategies for each of the different bibliographic databases

We used the Population, Concept, and Context (PCC) mnemonic to determine the eligibility of our research question for a scoping review study (Table 1).

FIGURE 2 History of forced female sterilization: An ethical dilemma.

The search strategy employed key terms related to informed consent, ethical issues, and female sterilization. The following line-by-line search strategies were used across different bibliographic databases:

- PubMed/MEDLINE: ("informed consent" OR "autonomy" OR "decision making") AND ("ethical issues" OR "ethics" OR "social justice" OR "reproductive justice") AND ("female sterilization" OR "tubal ligation" OR "non-reversible contraception")
- Scopus: ("informed consent" OR "autonomy") AND ("ethical issues") AND ("female sterilization" OR "tubal ligation")
- Web of Science: ("informed consent" AND "female sterilization") AND ("ethical issues" OR "social justice")
- Google Scholar: Similar combinations of terms as above, refined to target specific articles related to ethical issues in female sterilization.
- ProQuest Central: A broad search combining terms related to consent, ethics, and female sterilization.

Study selection

A two-stage screening process was used to assess the relevance of identified studies. Initially, two reviewers examined titles and abstracts independently, who applied predefined inclusion and exclusion criteria. Articles marked as "uncertain" were further reviewed through full-text screening. The Rayyan application assisted in the screening process, and any discrepancies were resolved through discussion.

Data extraction

Data were extracted using a predefined tool that captured the study's author, publication year, title, research methods, context, population, informed consent details, type of surgery, identified ethical issues, areas for improvement, conclusions, and whether the study was included or excluded.

Assessment of risk of bias

Although a formal risk-of-bias assessment was not the primary focus of this scoping review, the included studies were reviewed for potential biases, such as the representation of different population groups, the context of the studies, and the methodology used. Any notable biases were documented and considered in the synthesis of the findings.

Data synthesis

The collected data were synthesized to identify common themes and ethical concerns related to the informed consent process for female sterilization. The synthesis included an analysis of the ethical issues, recommendations from international bodies, and the prevalence of forced or coerced sterilization practices across different regions. The results are presented in the tables and figures, summarizing the key findings and study characteristics.

TABLE 1 PCC framework for eligibility of studies.

Determinant	Description
Population	Women who were counseled for a sterilization
Concept	Consent procedure for female sterilization. Why are we encountering complaints of coerced/forced sterilization?
Context	a. In the context of female adults: we define adults according to the World Health Organization definition of those 19 years and older. b. Who can give consent—people who have mental capacity (understanding, expressing a choice, appreciation, and reasoning) as defined by law and ethics. c. Female sterilization—permanent method of birth control as defined by the American College of Obstetricians and Gynecologists.

Abbreviation: PCC, population, concept, and context.

3 | RESULTS

3.1 | Study selection

Our initial search yielded 3408 articles, which were uploaded onto the Rayyan application. The application detected 130 duplicate articles, which were deleted, and a total of 3277 articles were screened. A further 3189 articles were excluded with reasons outlined in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Scoping Reviews (PRISMA-ScR) flow diagram summary (Figure 3). Eighty-eight articles were assessed for eligibility. After the second screening process, 34 articles were excluded because of lack of relevance to the study and dissertations, resulting in 55 articles fulfilling the inclusion criteria. A kappa calculation of 0.81 was obtained based on the results.

3.2 | Study characteristics

Most published articles were quantitative studies. There was a representation from both high-income countries (HIC) and low- and middle-income countries (LMIC), with most articles from LMIC originating in sub-Saharan Africa. Over the years, there has been a consistent number of publications indicating how female sterilization has continuously received attention in the medical field globally. Study characteristics are summarized in Figure 4. All extracted data from studies using the data collection tool is summarized in Table 2.[12–65] Recommendations from international obstetrics and gynecology bodies, as well as South African government laws and policies governing female sterilization, are summarized in Table 3.[30,45,48,52,60–65]

3.3 | Synthesis of results

Ethical transgressions of coercion

Autonomy

According to Beauchamp and Childress, autonomy is fundamentally self-rule, free from external interference and limitations such as poor understanding that hinder meaningful decision-making.[7] This review identified several factors that compromise a patient's autonomy, including coerced or flawed sterilization, defective consent processes, and incentivized consent. The lack of informed consent is a key indicator of forced sterilization. In the 1900s, eugenic programs grossly violated human rights by forcibly sterilizing thousands of women without their consent.[33,40,54,58] This unethical practice persists, with reports from Namibia and Chile highlighting instances of HIV-positive women being sterilized without their consent.[37] Quasicoercive consent remains problematic, as seen in Sweden, where women had to consent to sterilization to be discharged from the hospital or obtain an abortion.[25] Flawed consent processes are widespread, illustrated by the 30-day Medicaid cooling-off period in the United States, which results in 62 000 unfulfilled postpartum sterilization requests annually, restricting women's access to desired services, hence infringing on their autonomy.[22] Investigations into women's prison sterilization uncovered severe consent form deficiencies, including missing signatures and manipulated dates to bypass waiting periods.[35] The Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) identified further issues, such as the lack of alternative options, language barriers without interpreters, and emergency setting consents.[58] Overcoming language barriers is critical, as shown by improvements to the Medicaid consent form.[18] The 2001 case of Ms. Helena Ferencikova, who was sterilized during a cesarean section while sedated, illustrates the negligence in proper consent acquisition, for which she received no compensation despite the Ombudsmen's findings.[58] Incentivized consent, such as in the CRACK (Children Requiring a Caring Community) program, raises ethical concerns by targeting vulnerable groups, potentially exploiting their vulnerabilities.[23] Similarly, India's proposed two-child policy, offers sterilization incentives, risks coercion, and undermines autonomy.[38,57] Ideally, family planning incentives should enhance autonomy, reduce harm, and increase benefits, as demonstrated by voucher programs that improve health access without compromising individual choice.[51]

Beneficence and Nonmaleficence

In the *IV v. Bolivia* case, a critical incident occurred during an emergency cesarean section where the attending physician performed a tubal ligation for complications from multiple uterine adhesions. Although this decision was made in consideration of the patient's

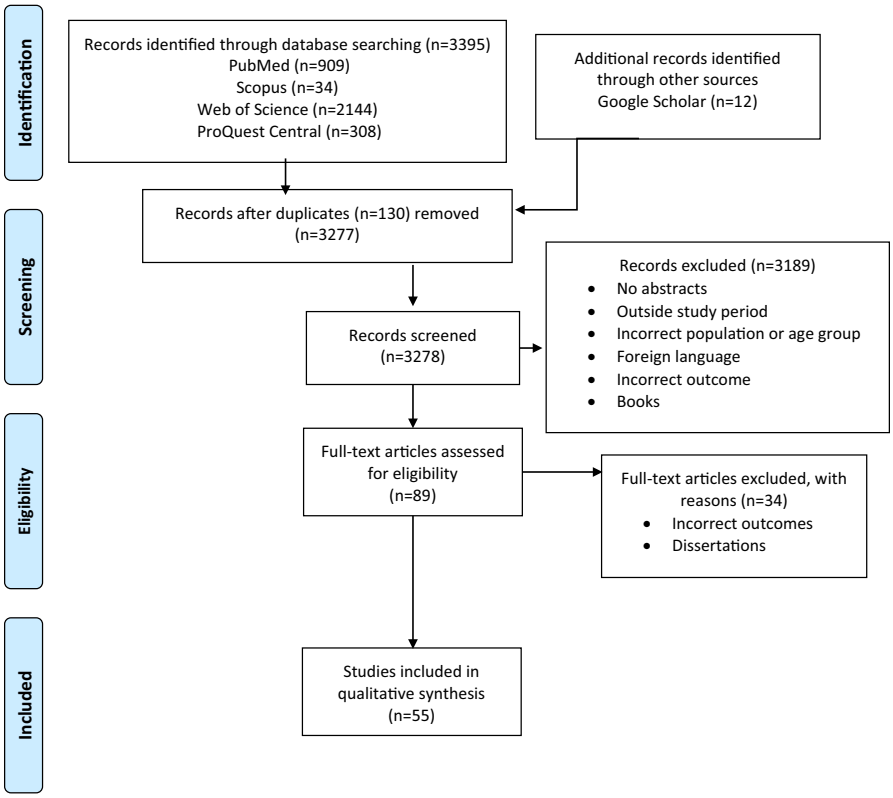
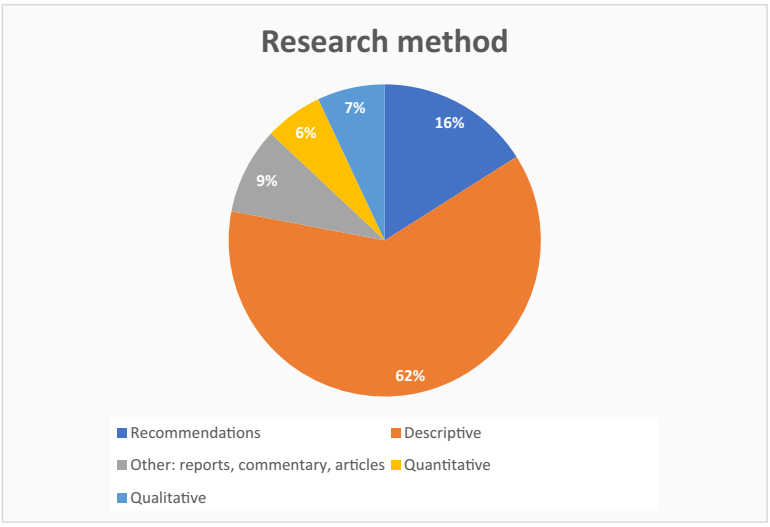


FIGURE 3 Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Scoping Reviews (PRISMA-ScR) flow chart demonstrating literature search and selection of studies.



- 69.8% of studies were published in high income countries, majority being in the United States of America
- India, Namibia, Republic of South Africa, Uzbekistan, Swaziland, Zimbabwe, Chile, Peru, and Slovakia were responsible for about 30% of studies published in low-middle income countries
- In Africa, published studies and recommendations on female sterilization were mainly from the sub-Saharan region
- 5 studies were found between year 2000 to 2005, and 6 studies between years 2015 and 2020
- All recommendations from Obstetrics and Gynaecology bodies (FIGO, ACOG, RCOG) were published after 2020

FIGURE 4 Summary of study characteristics. ACOG, American College of Obstetricians and Gynecologists; FIGO, International Federation of Gynecology and Obstetrics; RCOG, Royal College of Obstetricians and Gynecologists.

increased risk of uterine rupture in future pregnancies, it overlooked the principle of nonmaleficence, particularly the need for informed consent.[32]

Similarly, Dr. Attilo Rizzo, a social worker, expressed support for the CRACK program, which offers $300 to people living with addiction who opt for long-term contraception or sterilization. He observed that many of his patients, including those living with addictions, often do not wish to have more children, leading him to refer them to the program.[59]

Additionally, a study in Zimbabwe on sterilization during emergency cesarean sections found a low regret rate (3%) among women who consented to sterilization. In contrast, those who declined the

TABLE 2 Summary of studies included in the review.[12–65]

Study title	Research method	Country	Sample size	Areas of improvement	Conclusion
Use of a Low-Literacy Informed Consent Form to Improve Women's Understanding of Tubal Sterilization: A Randomized Controlled Trial[12]	Quantitative: RCT	HIC: United States	201 Women, aged 21–45 y	Low literary guidelines, user-friendly recommendations, and utilizing layman's terminology when counseling women about sterilization. The study found that those who got the low-literacy informed consent form had a better comprehension of tubal sterilization.	When contemplating standardized forms, policymakers should consider better low literacy standards.
Involuntary Sterilization of HIV-Positive Women: An Example of Intersectional Discrimination[13]	Review article	HIC and LMIC	Case reports	Intersectional discrimination refers to various compounded types of discrimination such as race, gender, and physical ability; nevertheless, the focus of this essay was on HIV and poverty. Feminist movement is more proabortion rights, but not as active in advocating for reproductive autonomy. In 2002, a woman in Chile was sterilized because of her HIV status. In Peru, the number of sterilizations grew from 15000 in 1995 to 115000 in 1997 with the introduction of incentivized sterilizations.	Despite legislation prohibiting involuntary sterilization, it is nevertheless performed in a discriminatory manner. HIV-positive women face intersectional prejudice. The article opens by recognizing the global issue of involuntary sterilization of HIV-positive women, despite the little risk of HIV transmission from mother to child if properly managed. The importance of a comprehensive, inclusive approach to discrimination that recognizes and resolves the cumulative impacts of numerous forms of prejudice is emphasized.
The Lost Generation: American Indian Women and Sterilization Abuse[14]	Case reports	HIC: Arizona, United States	Variable	Taking legal action against Indian Health Services and public health agencies is expensive for women who were sterilized without their knowledge or consent. In the past, there have been injustices against American Indian women. There are no specifically identified topics for development; however, the article may suggest improvements in legislation, healthcare practices, and respect for American Indian women's rights and autonomy.	Changes in regulations include a 30-day waiting period following consent, simplified language on consent forms, among revisions. The conclusion is likely to highlight the historical injustices encountered by American Indian women in the context of sterilization abuse, and it may advocate for recognition, redress, and policy and practice improvements to prevent such abuses in the future.
Precarious Lives: Forced Sterilization and the Struggle for Reproductive Justice in Peru[15]	Descriptive: analysis	LMIC: Peru	200000	Governmental bodies established to register and support victims to seek reparations (i.e., register of victims of forced sterilizations: REVIESFO) but there was poor financial support and political will as well as lack of recognition in Peruvian criminal law of forced sterilizations. Challenges in implementing reproductive justice in Peru due to a long history of authoritarian regimes and the influence of organized religion on state policies	Forced sterilization in more than 2000 Peruvian women between 1996 and 2000 was part of a state policy targeting rural, indigenous, illiterate, and impoverished women. Legalized in 1995 as part of family planning, sterilization led to 260000 by 2000, with only 10% having informed consent. In 1998, 85% of the Peruvian population was illiterate, causing vulnerability and systemic inequalities.

(Continues)

TABLE 2 (Continued)

Study title	Research method	Country	Sample size	Areas of improvement	Conclusion
Forced Sterilization of Women as Discrimination[16]	Descriptive: review article	HIC and LMIC	Variety, large	Forced sterilization was justified as a means of controlling hereditary and genetic abnormalities, overcrowding, and "own medical benefit" [Roma]. The paper suggests a more powerful legal response that recognizes forced sterilization as a form of discrimination and addresses the practice's systemic character.	Forced sterilization continues to be a violation of women's rights and a form of discrimination. However, the practice can be eliminated if law enforcement and legislators are cautious in their allegations. Recognizing forced sterilization as a breach of discrimination laws is critical to effectively addressing and eliminating the practice, and calls for more aggressive responses from legal systems, nongovernmental organizations, and judicial bodies.
Adding Injury to Injury: Ethical Implications of the Medicaid Sterilization Consent Regulations[17]	Descriptive: review article	HIC: United States	Variable	Medicaid policy imposes waiting periods from the time of consent to treatment, refuses coverage, and is against offering sterilization to women who genuinely desire it and are deemed ineligible. To better prepare professionals for the ethical dilemma of counseling patients regarding sterilization. When discussing Medicaid, be wary of interventions that can become barriers to care. The authors believe that modernizing federal sterilization consent legislation is a critical step towards addressing these issues.	Medicaid's 30-day cooling time and refusal to enable women in labor to choose sterilization are both restrictive and unethical. While we work to enhance the consent process, we must protect the rights of women who choose permanent contraception.
Sterilization in US Immigration and Customs Enforcement's [ICE's] Detention: Ethical Failures and Systemic Injustice[18]	Report/editorial	HIC: United States	Variable, detained immigrants	Immigration policies must protect women's reproductive rights and ensure policy compliance. Eliminate language barriers	Forced sterilization of immigrants has been identified as an example of xenophobia. The editorial emphasizes the importance of maintaining good medical ethics standards in immigration detention centers.
Report Says 100 Roma Women Have Been Forcibly Sterilized in Slovakia[19]	Newspaper report	LMIC: Slovakia	100 Roma women	Medical professionals are required to enhance their consent process and respect patients' autonomy.	More than 100 reports of forced sterilization are being investigated by the Slovak Ministry of Health. Women have filed allegations against doctors, stating that they were shouted at and told they would die if they did not consent to sterilization.
The Ethical Implications of the Targeted Population Programme Proposed by the UPA[20]	Discussion	LMIC: India	Variable	The necessity for population control programs (two-child policy) to be reassessed and rather examine a client-centered family planning program. While not expressly stated, the statement indicates the need for more ethical, educated, and rights-based approaches to population management and family planning in India, as opposed to what the United Progressive Alliance (UPA) government suggested.	The study highlights China's population control programs, which have led to a decline in sex ratio, forced abortions, domestic violence, and human rights violations, emphasizing the need for a client-centered approach to family planning that respects human rights.

TABLE 2 (Continued)

Study title	Research method	Country	Sample size	Areas of improvement	Conclusion
Offering a Woman Sterilization During an Emergency Cesarean Section May Sometimes Be Appropriate[21]	Quantitative: retrospective survey	LMIC: Zimbabwe	1533	There is low regret among women offered sterilization with emergency cesarean section. Therefore, it should be offered in high parity women.	It may be unethical not to offer tubal ligation to women of high parity in a setting with limited resources. The regret rate is 3%, whereas the regret rate for not accepting is 40%. The researcher concluded that selecting a tubal ligation during a stressful scenario, such as an emergency cesarean, does not always result in regret and that in resource-limited settings it may be immoral not to offer such an option to women with high parity.
Perceptions and Practice of State Medicaid Officials Regarding Informed Consent for Female Sterilization[22]	Quantitative: survey	HIC: Ohio, United States	67 employees	Policy makers need to revise existing policies moving forward to increase access to contraceptive care, balancing it against potential coercion.	The 1976 government policy on female sterilization, which was designed to tackle coerced sterilizations, resulted in 62000 unfilled requests every year, which led to 10000 abortions and 19000 unwanted births; 50% of the study group felt like government is being more vigilant and 10% questioned its efficacy.
The Payment of Drug Addicts to Increase Their Sterilization Rate Is Morally Unjustified and Not Simply "a Fine Balance"[23]	Descriptive: commentary	HIC: United Kingdom	Three female drug users	The article criticizes the practice of offering cash for sterilization for drug addicts, arguing it is morally and legally wrong, as it undermines freedom and autonomy, invalidating real consent.	Incentives (an offer) and inducement (a real-world incentive that influences a person's decision) are forms of coercion since they infringe on one's autonomy. The benefit of sterilization will be felt by other sectors, such as caregivers of babies of drug addicts, taxpayers, and medical insurance bills, rather than the addicts themselves, under the CRACK system (which offers $200 for sterilization).
Swaziland Debates Sterilization of HIV Patients[24]	Descriptive	LMIC: Swaziland	Variable	The concept of compulsory sterilization of HIV-positive women was criticized by Arthur Caplan of the University of Pennsylvania's Center for Bioethics and Pamela Sankar of the Center for Bioethics, who argued it was medically and ethically incorrect.	Following a predicted reduction in Swaziland life expectancy from 38 to 30 years by 2010, the Swaziland parliament suggested laws requiring involuntary sterilization of HIV-positive persons.
Enforced Sterilizations in Sweden Confirmed[25]	Descriptive: article	HIC: Sweden	32000	Medical associations could play a role in protecting the vulnerable (socioeconomically disadvantaged) people from forced sterilization. The article emphasizes the significance of critical reflection on previous policies, as well as ethical issues in medical practices and public health policy.	Sterilization for eugenic reasons (racial hygiene, genetic purity, and social and medical reasons) targeted weak and underprivileged groups. Though coercion decreased in the 1950s, weak and socioeconomically disadvantaged groups continued to receive this maltreatment, with medical associations remaining silent.

(Continues)

TABLE 2 (Continued)

Study title	Research method	Country	Sample size	Areas of improvement	Conclusion
What Should Physicians Consider About American Indian/Alaska Native Women's Reproductive Freedom?[26]	Descriptive: case and commentary	HIC: United States	Variable	The article advises that the consent process be improved, that healthcare providers receive cultural competence training, and that American Indian/Alaska Native women's reproductive autonomy be respected.	American Indian and Alaska natives have been subjected to forced sterilization since the 1860s, without alternatives or counsel. To honor their reproductive freedom, they need full information disclosure, no penalties, clarity on irreversibility, and informed decision-making.
Uzbekistan Accused of Forced Sterilization Campaign[27]	Descriptive: article	LMIC: Uzbekistan	Variable (≈80000)	Women should not be forced to undergo sterilization in order to reduce maternal death rates, but alternative methods should be pursued as specified in the Saving Mothers report, and medical counsels should protect medical professionals from government regulations that oblige them to do so.	Forced sterilization in Uzbekistan by medical professionals are part of a state-sponsored campaign aimed at improving maternal and infant mortality (which did improve by 40% between 1990 and 2008) and demographic control, posing human rights and medical ethics concerns.
The Human Rights Impact of Gender Stereotyping in the Context of Reproductive Health Care[28]	Descriptive: article/ discussion	HIC and LMIC: United States	One woman	The article emphasizes the significance of opposing gender stereotypes and protecting human rights in reproductive health care.	FIGO advises obstetricians and gynecologists to avoid stereotyping, particularly the stereotype that women are vulnerable and incapable of rational reproductive choices. This is illustrated in the *Bolivia state v IV* case, where the woman was sterilized during cesarean delivery without a valid informed consent.
Sterilizations at Delivery or After Childbirth: Addressing Continuing Abuses in the Consent Process[29]	Descriptive: article	HIC: United Kingdom	Variable	The paper emphasizes the importance of women's capacity to give informed consent for sterilization, arguing that it is not life-saving or urgent and should be considered elective. It calls for global and domestic action to protect patient autonomy and informed consent.	There have been reports of coerced sterilization on five continents, including Europe, North America, South America, Namibia, and Uzbek women. Premedicated consent, consent while in labor, misrepresenting information to obtain consent, and passing threats or providing incentives are all examples of flawed consent processes. The writers highlight the need to respect women's autonomy and avoid discriminatory behaviors against vulnerable groups such as ethnic minority communities and HIV-positive women.

TABLE 2 (Continued)

Study title	Research method	Country	Sample size	Areas of improvement	Conclusion
Sterilization of Women: Ethical Issues and Considerations[30]	Descriptive	HIC: United States	Variable	Respect for a woman's reproductive autonomy should guide sterilization provision and policy. Coercive practices should be avoided, and obstetricians should provide sterilization counseling that prioritizes a woman's reproductive desires. LARC methods should be discussed, and sterilization of a male partner should be discussed in appropriate cases. It is ethically permissible to perform sterilization in nulliparous women and young women who do not wish to have children. Biases should be considered in counseling and care recommendations. Incarcerated women should only undergo sterilization rarely, with access to LARC methods and excellent documentation. Patients should be informed early and provided with alternative contraception.	Physicians make contraception recommendations based on race, ethnicity, and socioeconomic background. Women aged 18 to 24 years are four times more likely than those aged 30 and older to seek reversal.
Voluntary and Involuntary Sterilization: Denials and Abuses of Rights[31]	Qualitative: analytical review	HIC: Canada, Toronto	Variable	Incentives or needing to sterilize to qualify for work prospects are examples of coercion. The article recommends that more legal safeguards are needed to ensure consent and autonomy in sterilization decisions, as well as to prevent coercive or involuntary sterilizations.	Abuse of sterilization: poor women, indigenous groups in Brazil, and companies in the United States that refuse to hire fertile women. Some religions oppose sterilization. Some governments promote the sterilization of mentally incompetent or disabled persons. It is emphasized that ethical principles and legal safeguards are required to prevent abuses.
Gendered Power Relations and Informed Consent: The *IV v. Bolivia* case[32]	Descriptive: article/ discussion	HIC: United States, Bolivia	One woman	National obstetric and gynecological organizations can raise awareness about women's human rights and informed consent. The Inter-American Court's ruling connected gender stereotypes to forced sterilization, emphasizing the importance of women's sexual and reproductive rights, and emphasized that race, disability, and socioeconomic status should not limit free choice.	The IV case highlights structural discrimination against Latin American women, including physical, psychological, and sexual assaults. It emphasizes the importance of ensuring human rights and protecting the right to informed consent, as well as protecting the right to abortion in Bolivia.
History of Medicine. Federal Sterilization Policy: Unintended Consequences[33]	Descriptive: review article	HIC: United States	Variable	Federal sterilization regulation may be a barrier to receiving desired contraception in women. The conclusion emphasizes the irony and unintended consequences of federal sterilization policies. While intended to protect women, these policies have, in some cases, limited their reproductive choices and autonomy.	In 1907, Indiana was the first state to enact eugenic sterilization policies. Due to a lack of scientific basis, eugenics came under examination in 1940. The federal sterilization regulations were established in 1979, along with a standardized consent form. Four of the 34 women did not obtain postpartum sterilization because they did not have a valid Medicaid consent form.

(Continues)

TABLE 2 (Continued)

Study title	Research method	Country	Sample size	Areas of improvement	Conclusion
Experiences of Coercion to Sterilize and Forced Sterilization Among Women Living With HIV in Latin America[34]	Qualitative	HIC: United States, El Salvador, Honduras, Mexico, and Nicaragua	285 Women living with HIV	HIV-related stigma and prejudice by health care practitioners may be the driving force behind forced sterilization; hence, that demographic group must be protected. Better practice and policy are required.	The paper discusses ethical issues in Latin America, including women's rights violations and HIV-related discrimination. It provides a comprehensive analysis of coerced sterilization and individual testimonies, contributing significantly to the literature on reproductive rights violations.
No Selves to Consent: Women's Prisons, Sterilization, and the Biopolitics of Informed Consent[35]	Descriptive: review article	HIC: United States	Variable	SB 1135, approved by the California legislature, prohibited sterilization for the purpose of birth control. In California prisons, there can no longer be elective sterilizations for the purpose of birth control. Medical boards continue to scrutinize doctors who perform sterilizations. The document emphasizes the complexity of informed consent in the context of prison sterilizations, emphasizing the need for a more comprehensive knowledge of biopolitical power and the ongoing struggle for reproductive justice in carceral settings.	The US prison population is predominantly of Black race, leading to a loss of civil and political rights for people of color, including reproductive rights. A report by Elaine Howle found that 39 of 144 cases of tubal ligation were associated with deficiencies in informed consent.
Tubal Sterilization Without Consent: A Case Report[36]	Descriptive: case study	LMIC: India	One woman	Informed consent prior to performing any procedure to avoid being charged with negligence or malpractice. The document suggests the necessity of obtaining written informed consent before any procedure, to avoid legal repercussions such as charges of negligence or malpractice.	The patient's informed consent was not obtained before surgery or postoperatively. The conclusion emphasizes the legal and ethical requirement for informed consent.
Forced Sterilizations of HIV-Positive Women: A Global Ethics and Policy Failure[37]	Descriptive: policy forum	LMIC: RSA, Chile, Namibia	Variable	The document suggests the necessity of obtaining written informed consent before any procedure, to avoid legal repercussions such as charges of negligence or malpractice	South Africa, Namibia, and Chile have reported forced sterilizations of HIV-positive women, violating their rights to health care and reproductive rights. Advocacy groups filed a complaint with the Inter-American Commission on Human Rights in 2009, arguing that medical professionals must respect autonomy and avoid unfair discrimination, and urgent attention is needed through stronger policies and legal measures.
Incentivized Sterilization: Lessons From India and for the Future[38]	Descriptive: opinion piece	LMIC: India	Variable	Incentives can put some pressure on and influence decision-makers. Incentives and inducements are also offered to women who accept sterilization and thus have a way of undermining the "free and informed" nature of the consent. FIGO condemns inducements, pressure, and coercion. Caution should be practiced when incentive schemes are implemented in relation to sterilization	In India, a state amendment bill was tabled to promote the two-child policy. In order to regulate growth in population, incentives in the form of taxes, employment, and education are granted to people who limit their families to two children. This is cause for alarm when the offer has life-changing and permanent consequences for individuals who accept it.

TABLE 2 (Continued)

Study title	Research method	Country	Sample size	Areas of improvement	Conclusion
India's Latest Sterilization Camp Massacre[39]	Descriptive: review	LMIC: India	Variable	Incentivized consent is still rife with government playing a role with "sterilization targets" that are set out. No targets should be made with regards to family planning	Incentives offered to doctors for high sterilization rates and women who consent to sterilization. This led to high numbers of sterilizations, poor quality care, and inevitably complications. Family planning 2020 (contraception to 48 million couples) may be ambitious and lead to coercion as well as compromise to quality service.
Uterus Collectors: The Case for Reproductive Justice for African American, Native American, and Hispanic American Female Victims of Eugenics Programs in the United States[40]	Descriptive: report	HIC: Florida, United States	Variable	Eugenic programs coerced mostly women of color into sterilization. In order to rebuild trust, investigations, disclosures, apologies, and proactive healthcare measures need to be put in place. Reparations and criminal charges should be brought against those involved, and reconciliation with healthcare communities is advocated.	African Americans, Native Americans, and Hispanic American women were sterilized without their knowledge and were also severely and negatively affected by the eugenic programs, or "medical apartheid." The same group lacked access to a justice system, which was predominantly White at that time. All these factors have led to broken trust between Black and Brown communities and the medical community.
The Right of the State to Sterilize[41]	Descriptive: report	HIC: United States	Variable	Eugenics, the science of selective breeding, was introduced in Switzerland, Indiana, and Virginia in the 19th century. The *Buck v Bell* case in 1972 ruled that sterilization of individuals with mental deficiencies can promote patient health and society's welfare, but made erroneous assumptions. Caution should be practiced when sterilizations are said to be performed for "eugenics" due to lack of scientific basis.	Between 1933 and 1937, 28 states mandated eugenic sterilization, resulting in involuntary sterilization of 25 403 Americans and 600 000 in Germany. This period highlights pseudoscience's impact on individual rights and civil liberties.
Reports of Coerced Sterilization of Indigenous Women in Canada Mirrors Shameful Past[42]	Descriptive: article/ discussion	HIC: Canada	Variable	Coercive sterilization violates human rights, including health, information, privacy, and reproductive rights. WHO, United Nations women, and other agencies have reported it as unethical and a form of violence against women. The article has called for mandatory cultural training, cultural competency education, revision of consent policies, and Aboriginal rights frameworks.	Reports of coerced sterilization of Aboriginal women in Saskatoon Health region, Alberta, Manitoba, and Southern Saskatchewan reveal that healthcare workers also played a role in pressuring women into undergoing the procedure during labor. Women felt invisible, profiled, and powerless. Racism, which was acknowledged by Saskatoon Health region, exists within the healthcare system, and apologies should have been made sooner. In Peru, over 26 000 women underwent sterilization between 1996 and 2000, with consent only found in 10% of the cases.

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TABLE 2 (Continued)

Study title	Research method	Country	Sample size	Areas of improvement	Conclusion
Obtaining Informed Consent for a Sterilization in the Light of Recent Case Law[43]	Descriptive: case law	LMIC: RSA, Namibia	Two cases	The proposed amendment to current law clarifies who should obtain consent for sterilization procedures. Written consent is not equivalent to informed consent, and must be obtained before labor by a surgeon or gynecologist performing the procedure.	Informed consent is an ethical and legal obligation, as per South Africa's sterilization Act no. 44 of 1998. However, in *Pandie v Isaacs*, a gynecologist performed a sterilization without informed consent, and three HIV-positive women in Namibia claim this.
Forced Sterilization of Native Americans: Later Twentieth Century Physician Cooperation With National Eugenic Policies?[44]	Descriptive: article/ discussion	HIC: United States	3406	The paper suggests revisiting the forced sterilizations of Native Americans given that data have revealed a flawed and coerced informed consent process. It also suggests a need for improved knowledge and ethical reflection in medical practice, particularly in relation to surgical procedures such as sterilization, which have significant and long-term consequences.	According to the disclosed inquiry HRD-77, the Indian Health systems performed 3406 sterilizations in Native American women between 1973 and 1976. The inquiry also revealed that women were pressured and the surgeries were conducted by physicians and healthcare professionals employed by the IHS or contracted by the IHS. The article concludes that forced sterilization of Native American women was a significant ethical violation and abuse of medical practice, fueled in part by eugenic beliefs prominent at the time.
Access to Postpartum Sterilization[45]	Descriptive: report	HIC: United States	Variable	ACOG advocates for postpartum sterilization as an option even in emergency settings.	ACOG recommends making postpartum sterilization more accessible. Where it cannot be done, alternatives should be offered with shared decision-making and informed consent. Institutions should consider designating sterilizations as nonelective procedures and consent forms should be modified to create fair access regardless of insurance type.
Medicaid Consent to Sterilization Forms: Historical, Practical, Ethical, and Advocacy Considerations[46]	Descriptive: review article	HIC: United States	Variable	The Medicaid consent form for sterilization should be valid from 24 hours after signing to up to a year, with suggestions for improvement to improve clinical and ethical care. Improvements include updating the form to modern healthcare practices, simplifying language, and making it more accessible.	In 1970, the federal government released a policy and Medicaid consent form for sterilization aimed at protecting vulnerable groups from forced sterilization, but this has not been modified since inception. As per observed results, it has created barriers for minority and low socioeconomic women. The form, which expires within 60 days post partum, prevents 37% to 51% of women from obtaining postpartum sterilization due to conditions set on the consent form.

TABLE 2 (Continued)

Study title	Research method	Country	Sample size	Areas of improvement	Conclusion
Time and Time Again: The Reincarnations of Coerced Sterilization[47]	Descriptive: review	HIC: Massachusetts, United States	Variable	Medical professional bodies exist to hold doctors accountable while simultaneously protecting those who are vulnerable. It argues that better recognizing and resolving intersectional vulnerabilities, greater education and ethical training for healthcare personnel, and systemic improvements to prevent such abuses are all necessary.	Reports of coerced sterilization at Irwin County Detention Center in 2020 revealed racism and xenophobia, targeting ethnic and racial minorities. Social workers were reported to have coerced nulliparous and sexually inactive girls into sterilizing, quoting that they are "more likely to be unwed mothers and aid-dependants." Between 2005 and 2013, 148 women (60% Black/Hispanic) were sterilized in California correctional facilities without a valid consent form. To prevent recurrence, a concerted effort is needed to address intersectional vulnerabilities and safeguard against ethical violations.
Female Contraceptive Sterilization: FIGO Committee for the Ethical Aspects of Human Reproduction and Women's Health[48]	Descriptive: report/ recommendations	HIC: United Kingdom	Variable	No woman should be sterilized without informed consent. Alternatives to sterilization should be discussed. Sterilization should not be considered as an emergency procedure, thus no pressure for consent should be exerted. Consent for sterilization should not be made a condition to receiving medical attention. Forced sterilization is an act of violence. When policies are being made, health professionals should be a voice of reason and compassion.	Recommendations on female sterilization procedure by FIGO.
Chronicles of Communication and Power: Informed Consent to Sterilization in the Namibian Supreme Court's LM Judgment of 2015[49]	Qualitative: report, legal analysis	LMIC: Namibia	Three women	The article highlights the importance of antenatal contraceptive technique conversations that are documented in clinical records, preventing first-time sterilization consent during labor, and promoting informed consent as a communicative process. It recommends institutional and policy changes to ensure the integrity of the consent process, as well as patient-centered communication techniques.	The LM judgment highlights the challenges of obtaining informed consent in resource-constrained circumstances, as well as the significance of recognizing individual contexts and power imbalances when obtaining consent. It advocates for a more nuanced and ethical approach to informed consent to safeguard vulnerable populations from coercive behaviors, particularly HIV-positive women.

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TABLE 2 (Continued)

Study title	Research method	Country	Sample size	Areas of improvement	Conclusion
An ethics of Testimony, Prisoner Nurses at Auschwitz[50]	Descriptive: reports	HIC: Auschwitz, Poland	1000 Women, prisoners	When all health care workers are involved in forced sterilization, criminal and unethical acts, there is a collapsed moral universe. It highlights the need for medical professionals to uphold these principles.	In 1941, two physicians, Dr. Carl Clauberg (using a method of injecting what was suspected to be formalin vaginally in four to five doses) and Dr. Horst Schumann, launched research programs on rapid and cheap methods of sterilization. This was tested on more than 1000 involuntary women, with only about 100 surviving. Women (prisoners) tell their stories, which include a nurse named "Sylvia" who was actively involved in these tests even when the doctors were not around.
Under What Conditions Is it Ethical to Offer Incentives to Encourage Drug-Using Women to Use Long-Acting Forms of Contraceptions?[51]	Descriptive: report	HIC: United States	Variable, 3600 addicted clients	Incentives should preserve individual autonomy while minimizing harm and enhancing benefits. Programs that offer vouchers for family planning and campaigns for sexually transmitted infection prevention reduce inequalities in health services. Prioritizing long-term reversible contraceptives is recommended for social and ethical reasons in preventing unplanned pregnancies.	Project Prevention, an American organization, has paid more than 3600 drug addicts $300 to undergo surgical sterilization or long-term contraceptive use. Critics argue this violates reproductive rights and targets minority groups from poor backgrounds. The use of cash may undermine informed consent and require guidelines. Ethical principles such as autonomy, nonmaleficence, beneficence, and distributive justice are considered. The authors recommend providing resources to prevent unplanned pregnancies and moderate cash or noncash incentives for reversible contraception.
FIGO's Ethical Recommendations on Female Sterilization Will Do More Harm Than Good: A Commentary[52]	Descriptive: commentary	HIC: Netherlands	Variable	The author's argument is focused on LMICs where there is a shortage of access to obstetrician prenatal care, particularly in sub-Saharan Africa. There are around 22% of patients who deliver unbooked, 41% of unplanned pregnancies (globally), and a maternal death rate of 1:300. Given those statistics, belated counseling and consent for tubal ligation may be necessary.	The author criticizes FIGO's recommendations against belated counseling on sterilization during labor or at termination of pregnancy, arguing that it should still be discussed in emergency settings. A study conducted in Zimbabwe showed a low regret rate on belated sterilization uptake with an even a higher regret rate (26-fold) when patients did not consent when opportunity arose.

TABLE 2 (Continued)

Study title	Research method	Country	Sample size	Areas of improvement	Conclusion
How Should a Physician Respond to Discovering Her Patient Has Been Forcibly Sterilized?[53]	Commentary	HIC: United States	Variable	Physicians may not come forth to report discovered cases of sterilization abuse in fear of being victimized, but reporting may assist in revealing a broader nationwide pattern of systemic injustice. It also suggests physicians should be vigilant about the history of coerced sterilization, advocate for affected patients, and ensure ethical practices in their medical conduct.	A patient was sterilized during a cesarean delivery in prison without consent, discovered by a doctor during a hysterosalpingogram. The report recommends a thorough review of prison records for similar cases. Bernard Rosenfeeld, a whistleblower, was victimized for exposing sterilization abuse of Mexican and Mexican American women, leading to a lawsuit against the UCLA department chair.
Intersectional Discrimination of Romani Women Forcibly Sterilized in the Former Czechoslovakia and Czech Republic[54]	Descriptive: report	HIC: Czechoslovakia	Variable	The author emphasizes the need for acknowledgment of past coerced sterilizations, redress for victims, and policy revision to prevent ongoing cases. They suggest legal reforms, compensation for victims, and international attention.	Between 1972 and 1991, Czechoslovakia used financial inducements to coerce Romani women into sterilization, with 36.6% of all female sterilization performed on Romani women. Since 1989, 300 Romani women have complained about sterilization without consent. When the European Roma Rights center sought justice for the victims in 2003, the cases were dismissed, stating practice up to 1991 was motivated by eugenics. Czech government recommendations for urgent action include investigating involuntary sterilization and establishing compensation mechanisms. The article concludes that coerced sterilization of Romani women is a grave human rights violation.
The Indian Health Service and the Sterilization of the Native American Women[55]	Descriptive: article	HIC: United States	Variable	The Department of Health, Education, and Welfare needs to conduct a full audit on all sterilizations that the federal government funds and not just computer records to curb ongoing sterilization abuse on Native Americans.	The history on forced sterilization on Native American women was outlined. The article concludes that the sterilization procedures not only affected the individual women but also had a profound impact on the wider Native American community, disrupting families and eroding trust in the government and medical institutions. It also notes a shift towards tribal management of health services and the need for comprehensive audits to prevent further abuses

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TABLE 2 (Continued)

Study title	Research method	Country	Sample size	Areas of improvement	Conclusion
Eugenics, Sterilization, and Historical Memory in the United States[56]	Descriptive: review article	HIC: California, United States	19 000	150 Inmates were sterilized without proper consents: inadequate counseling, lasting consequences, missing physicians' signatures, mandated waiting period, and destruction of medical records. The need for recognition and redress of historical injustices and the importance of ethical considerations in medical practices and public health policies.	Eugenic laws were passed between 1900s and 1970s to control reproductive rights of vulnerable populations. North Carolina and Virginia established compensation programs for sterilization victims, with more Mexican patients being sterilized. The Catholic church protested against sterilizations, and 150 female inmates in California were sterilized without consent. This history is relevant to genomics and social justice.
For Reproductive Justice in an Era of Gates and Modi: the Violence of India's Population Policies[57]	Descriptive: review article	LMIC: India	Variable	More support should be committed towards female sterilization, which has a high risk of complications (19 of 100 000) when compared with the rest of the world, necessitating the implementation of rules in sterilizing camps to minimize the high rate. The report advocates for a human rights–based reevaluation of population policy, highlighting the need for policies that respect women's autonomy and reproductive rights, particularly those from marginalized areas.	The union minister advocated for sterilizations to control population growth. A physician who performed a record of 500 000 laparoscopic tubectomies was given an award, despite cases where 15 women died and others were hospitalized in the process. The Bilaspur high court had ordered that the cases be dropped. Female sterilization accounted for 66% of all contraceptive use between 2005 and 2006 and consumed 85% of the family planning budget between 2013 and 2014, with a major portion of it on compensations and incentives (3240.49 million of the 3960.97 million). The paper advocates for reproductive justice that considers the broader sociopolitical context and respects the rights of all women.

TABLE 2 (Continued)

Study title	Research method	Country	Sample size	Areas of improvement	Conclusion
Forced and Coerced Sterilization of Women in Europe[58]	Qualitative: review	HIC and LMIC: Europe, Czech Republic, Slovakia	Variable	The study suggests that the United Nations should consider developing policies and regulations to protect women's rights against forced sterilization, based on the principles of the CEDAW. It also recommends better legal frameworks, education, and compensation for victims.	The United Nations has condemned forced and coerced sterilization, which affect women's physical and mental health. Between 1930 and 1970, women in Europe suffered from Nazi and eugenics programs. In 2007, the CEDAW held Hungary accountable for flawed consent processes. The study concludes that despite progress in recognizing women's rights, forced and coerced sterilization in Europe poses a significant challenge and calls for more guidance from international and regional human rights bodies and medical associations.
Sterilization Offer to Addicts Reopens Ethics Issue[59]	Descriptive: article	HIC: New York, United States	Variable	Instead of rewarding sterilization, there is a need for better addiction treatment and family planning counseling.	The CRACK program offers $200 to drug addicts for long-term contraception or sterilization. Critics argue it is incompatible with healthcare policy and aims for selective breeding. However, social worker Dr. Attilo Rizzo Jr. praises the program, which has helped over 369 women. The CRACK program's approach is controversial and has sparked mixed reactions.
FIGO Ethics and Professionalism Guidelines for Obstetrics and Gynecology guideline[60]	Descriptive: recommendations	HIC: Europe	Variable	Sterilization for women should be voluntary and without coercion or inducement. Women should be informed about their options and medically reasonable nonpermanent contraception options. Misconceptions about STD prevention should be addressed with appropriate counseling. Sterilization is not an emergency procedure and should not be a condition for other medical care or benefits. Forced sterilization is considered criminal violence and should not be provided by obstetricians or healthcare providers. The medical profession has a duty to be a voice of reason and compassion, pointing out when legislative, regulatory, or legal measures interfere with informed consent or medically reasonable sterilization provision.	Recommendations to an improved consent process for female sterilization

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TABLE 2 (Continued)

Study title	Research method	Country	Sample size	Areas of improvement	Conclusion
Female Sterilization: RCOG Consent Advice No. 3 [61]	Descriptive: recommendations	HIC: United Kingdom	Variable	The consent forms should include information about the proposed procedure, significant risks, potential benefits, and potential complications. They should also discuss potential extra procedures, patient statements, and anesthesia forms. Patients should be informed about preoperative information and the form of anesthesia.	RCOG recommendations on improving consent process
Sterilization Bill[62]	Amendment bill	LMIC: RSA	Variable	To provide for the right to sterilization; to determine the circumstances under which sterilization may be performed and, in particular, the circumstances under which sterilization may be performed on persons incapable of consenting or incompetent to consent due to mental disability; and to provide for matters connected therewith.	Sterilization bill passed by Parliament of the RSA
Provincial Policy, Standardized Guidelines and Protocols on the Management of Sterilization Services[63]	Provincial policy	LMIC: RSA	Variable	Ensuring informed and voluntary consent for sterilization procedures. Providing comprehensive preprocedure counseling, especially for those younger than 25 years, with few or no children, and not in a stable relationship. Emphasizing sterilization as a permanent method and discussing reversible alternatives. Ensuring proper training and competence of healthcare providers performing sterilization. Regular audits and monitoring of sterilization services and procedures. Special considerations and safeguards for sterilizing individuals with severe mental disabilities, including panel assessments.	Policy, guidelines and recommendation on improving the consent process for sterilization
General Ethical Guidelines for Reproductive Health[64]	Guidelines	LMIC: RSA	Variable	The booklet provides guidelines for ethical considerations in sterilization, emphasizing the need for informed consent and the permanent nature of sterilization. It recommends involving the patient's partner in counseling, but without making their consent mandatory. It cautions against linking other healthcare services to agreement for sterilization and advises against sterilization based on ethnic, racial, or socioeconomic factors. Special attention is given to the rights of mentally handicapped persons and the inappropriateness of hysterectomy solely for sterilization. The document also discusses the importance of comprehensive counseling, including discussing the potential for regret, alternatives such as male sterilization, and the possibility of sterilization failure.	Guidelines on the consent process and ethical considerations

TABLE 2 (Continued)

Study title	Research method	Country	Sample size	Areas of improvement	Conclusion
Convention on the Elimination of All Forms of Discrimination against Women: Adopted and Opened for Signature, ratification and Accession by General Assembly Resolution 34/180 of 18 December 1979[65]	Regulations	LMIC: RSA	Variable	Eliminate discrimination against women and advocate for gender equality.	States Parties condemn discrimination against women in all its forms, agree to pursue by all appropriate means and without delay a policy of eliminating discrimination against women and, to this end, undertake the following: (i) To embody the principle of the equality of men and women in their national constitutions or other appropriate legislation if not yet incorporated therein and to ensure, through law and other appropriate means, the practical realization of this principle; (ii) To adopt appropriate legislative and other measures, including sanctions where appropriate, prohibiting all discrimination against women; (iii) To establish legal protection of the rights of women on an equal basis with men and to ensure through competent national tribunals and other public institutions the effective protection of women against any act of discrimination; (iv) To refrain from engaging in any act or practice of discrimination against women and to ensure that public authorities and institutions shall act in conformity with this obligation; (v) To take all appropriate measures to eliminate discrimination against women by any person, organization or enterprise; (vi) To take all appropriate measures, including legislation, to modify or abolish existing laws, regulations, customs, and practices, which constitute discrimination against women; and (vii) To repeal all national penal provisions, which constitute discrimination against women.

Abbreviations: ACOG, American College of Obstetricians and Gynecologists; CEDAW, Convention on the elimination of all forms of discrimination against women; CRACK, Children Requiring a Caring Community; FIGO, International Federation of Gynecology and Obstetrics; HIC, high-income countries; IHS, Indian Health Service; LARC, long-acting reversible contraception; LMIC, low- and middle-income countries; RCOG, Royal College of Obstetricians and Gynecologists; RCT, randomized controlled trial; RSA, Republic of South Africa; STD, sexually transmitted disease; WHO, World Health Organization.

TABLE 3 Recommendations for international organizations.[30,45,48,52,60–65]

Title	Recommendation
Sterilization of women: ethical issues and considerations[30]	Prioritize respect for a woman's reproductive autonomy in sterilization provision and policy. Avoid coercive or forcible sterilization practices. Provide comprehensive presterilization counseling, focusing on the patient's reproductive desires and emphasizing the permanence of sterilization. Consider male partner sterilization, where appropriate, during counseling. Recognize and mitigate bias in counseling and care, particularly biases related to race, ethnicity, socioeconomic status, sexual orientation, and motherhood. Apply special caution and additional safeguards for sterilization of incarcerated women, given the potential for coercion. Address issues of sterilization in religiously affiliated health systems, ensuring patient awareness and offering transfer of care when necessary. These recommendations are centered around respecting individual autonomy, providing thorough and unbiased counseling, and safeguarding against coercion, especially in vulnerable populations.
Access to postpartum sterilization[45]	Making postpartum sterilization readily available, as it is a critical aspect of adequate care. Ensuring every effort is made to complete requested immediate postpartum sterilization, barring medical contraindications. Discussing alternative contraceptive methods if unforeseen morbidity prevents sterilization. Respecting patient autonomy in decisions about postpartum sterilization. Engaging in comprehensive, unbiased, patient-centered discussions about sterilization. Modifying sterilization policies and forms to ensure equitable access for all individuals. Developing policies to ensure the federal sterilization consent form is signed during prenatal care. Informing patients at religiously affiliated hospitals or with religiously objecting clinicians about any restrictive policies early in prenatal care.
Female contraceptive sterilization[48]	Sterilization must be based on the woman's informed consent, without coercion, pressure, or undue influence. Women should receive comprehensive information about sterilization in an accessible, nontechnical language, including details about nonpermanent contraception options. Sterilization is not an emergency procedure and requires time and support for the woman to make an informed decision. Consent for sterilization should not be a condition for receiving medical care or other benefits. Forced sterilization is considered an act of violence. Healthcare providers should not initiate judicial proceedings for sterilization of their patients. The medical profession should advocate against policies that interfere with personal choice and medical care.
FIGO's ethical recommendations on female sterilization will do more harm than good: a commentary[52]	The article critiques FIGO's ethical recommendations on female sterilization, arguing that they may cause more harm than good. It emphasizes that well-timed counseling about peripartum tubal occlusion is often unavailable, especially in less-resourced locations. The article suggests that the risks of not offering women the option of peripartum sterilization, including increased maternal mortality and missed contraceptive opportunities, outweigh the potential dangers of belated sterilization counseling. The author argues for a more balanced and practical approach, considering the diverse global context and individual circumstances.
FIGO ethics and professionalism guidelines for obstetrics and gynecology[60]	No woman may be sterilized in the absence of her informed and voluntary consent. The use of coercion, pressure, or undue inducement by healthcare providers, institutions, or the state is ethically impermissible. Women considering sterilization must be given information of their options in the language in which they communicate and understand, through translation if necessary, in an accessible format and plain nontechnical language appropriate to the individual woman's needs. Women should also be provided with information about medically reasonable nonpermanent options for contraception. Misconceptions about prevention of STDs, including HIV, by sterilization need to be addressed with appropriate counseling about STDs. Sterilization for prevention of future pregnancy is not an emergency procedure. It does not justify departure from the general principles of free and informed consent. Therefore, the needs of each woman must be accommodated, including being given the time and support she needs—while not under pressure, in pain, or dependent on medical care—to consider the explanation she has received of what permanent sterilization entails and to make her choice known. Consent to sterilization must not be made a condition of receipt of any other medical care—such as HIV/AIDS treatment, assistance in natural or cesarean delivery, or medical termination of pregnancy—or of any benefit such as employment, release from an institution, public or private medical insurance, or social assistance. Forced sterilization constitutes an act of criminal violence, whether committed by individual practitioners or under institutional or governmental policies. It is ethically impermissible for an obstetrician-gynecologist to provide forced sterilization. It is ethically inappropriate for healthcare providers to initiate judicial proceedings for sterilization of their patients, or to be witnesses in such proceedings inconsistently with Article 23 (1) of the United Nations Convention on the Rights of Persons with Disabilities. At a public policy level, the medical profession has a duty to be a voice of reason and compassion, pointing out when legislative, regulatory, or legal measures interfere with informed consent or medically reasonable provision of sterilization.

TABLE 3 (Continued)

Title	Recommendation
Female sterilization[61]	The consent forms should have: Name of the proposed procedure or course of treatment in this case female sterilization, proposed procedure, significant and frequently occurring risks—procedure failure resulting in unplanned pregnancies, procedure failure resulting in ectopic pregnancy, visceral or blood vessel injury, death rate, regret rate, and failure to complete procedure. Intended and potential benefits to be discussed, which is to prevent pregnancy permanently. Extra procedure, which may become necessary during this procedure, such as converting to laparotomy. Discuss alternative and patient needs to have a statement outlining procedures that should not be carried out without further discussion. Preoperative information needs to be given to patient and the form of anesthesia to be used.
Sterilization bill[62]	Sterilization must be voluntary and based on informed consent. The Act defines who can consent to sterilization and the specific criteria for consent. Special procedures and considerations are outlined for individuals who are incapable of giving consent due to mental disabilities. The Act sets regulations for the facilities where sterilizations can be performed and mandates record-keeping for these procedures. Penalties are established for violations of the Act's provisions.
Provincial policy, standardized guidelines and protocols on the management of sterilization services[63]	Ensuring informed and voluntary consent for sterilization procedures. Providing comprehensive preprocedure counseling, especially for those younger than 25 years, with few or no children, and not in a stable relationship. Emphasizing sterilization as a permanent method and discussing reversible alternatives. Ensuring proper training and competence of healthcare providers performing sterilization. Regular audits and monitoring of sterilization services and procedures. Special considerations and safeguards for sterilizing individuals with severe mental disabilities, including panel assessments.
General ethical guidelines for reproductive health[64]	The booklet provides guidelines for ethical considerations in sterilization, emphasizing the need for informed consent and the permanent nature of sterilization. It recommends involving the patient's partner in counseling, but without making their consent mandatory. It cautions against linking other healthcare services to agreement for sterilization and advises against sterilization based on ethnic, racial, or socioeconomic factors. Special attention is given to the rights of mentally handicapped persons and the inappropriateness of hysterectomy solely for sterilization. The document also discusses the importance of comprehensive counseling, including discussing the potential for regret, alternatives such as male sterilization, and the possibility of sterilization failure.
Convention on the elimination of all forms of discrimination against Women (CEDAW)[65]	States Parties condemn discrimination against women in all its forms and agree to pursue by all appropriate means and without delay a policy of eliminating discrimination against women and, to this end, undertake the following: (i) To embody the principle of the equality of men and women in their national constitutions or other appropriate legislation if not yet incorporated therein and to ensure, through law and other appropriate means, the practical realization of this principle; (ii) To adopt appropriate legislative and other measures, including sanctions where appropriate, prohibiting all discrimination against women; (iii) To establish legal protection of the rights of women on an equal basis with men and to ensure through competent national tribunals and other public institutions the effective protection of women against any act of discrimination; (iv) To refrain from engaging in any act or practice of discrimination against women and to ensure that public authorities and institutions shall act in conformity with this obligation; (v) To take all appropriate measures to eliminate discrimination against women by any person, organization, or enterprise; (vi) To take all appropriate measures, including legislation, to modify or abolish existing laws, regulations, customs, and practices, which constitute discrimination against women; and (vii) To repeal all national penal provisions that constitute discrimination against women.

offer had a significantly higher regret rate (26 times higher). This suggests that in resource-limited settings, it may be unethical not to offer sterilization as an option to women with high parity.[52]

Vulnerable groups

The International Federation of Gynecology and Obstetrics (FIGO) has advised physicians to avoid stereotyping women as vulnerable, emotionally volatile, and unable to make rational reproductive choices.[28] Globally, women, especially those reliant on government health care, are disproportionately affected by forced sterilization. Studies show that women facing multiple vulnerabilities—such as illiteracy, HIV, addiction, and poverty—are more likely to experience reproductive injustice. For instance, in 2010, Swaziland proposed mandatory sterilization for HIV-positive citizens to improve life expectancy [244], and, in Namibia, 16 HIV-positive women were sterilized without valid consent.[29] In South Africa, 18 of 22 HIV-positive women were coerced into sterilization, while in Chile, 12.9% of HIV-positive women were sterilized without consent, with 29% coerced.[37]

These issues are not confined to LMICs. In the United States, the CRACK program incentivized sterilization for homeless individuals, those with addictions, and HIV-positive women, leading to coerced decisions.[23] A study on 285 HIV-positive women in the United States revealed that a quarter experienced pressure to sterilize, with six times higher rates of forced or coerced sterilization [344]. The American College of Obstetricians and Gynecologists (ACOG) noted that race, ethnicity, and socioeconomic status influence contraceptive

recommendations, leading to stereotypes and discrimination.[30] In Peru, between 1996 and 2000, over 200 000 sterilizations were performed on rural, indigenous, and impoverished women, with only 10% having given informed consent.[15] Similar abuses occurred in India, Brazil, and Czechoslovakia, where sterilization was used as a tool for population control and racial discrimination.[31,38,54]

Racial and ethnic discrimination also fueled forced sterilization practices in the United States and Canada. Aboriginal women in Canada and minority women in the United States, particularly those who were incarcerated, faced coerced sterilization due to racist policies.[42,47] In California, 60% of women sterilized between 2005 and 2013 were Black or Hispanic.[47] American Indians and Alaska Natives have been subjected to forced sterilization since the 1860s, often under the threat of losing federal benefits.[26]

Immigrants are another vulnerable group targeted for forced sterilization, particularly in detention facilities where language barriers further complicate informed consent.[18] Coerced sterilization in the Irwin County Detention Center in 2020 and the historical use of incarcerated women as subjects for medical experiments highlight the ongoing violation of reproductive rights.[47,50] Project Prevention, formerly CRACK, continues to target minority groups, paying more than 3600 people with drug addictions to undergo sterilization, raising significant ethical concerns about the violation of reproductive rights.[51]

Role players in forced sterilization

Governments and lawmakers in both HIC and LMIC have played significant roles in coercive and forced sterilization practices, often under eugenic laws from the 1900s to the 1970s, targeting vulnerable populations reliant on government health care. For instance, in Peru, legalized sterilization as part of family planning under Fujimori's regime led to 260 000 procedures by 2000, with only 10% obtaining valid informed consent, incentivized by bonuses to healthcare practitioners.[15] Similarly, Swaziland proposed mandatory sterilization for HIV-positive citizens in 2000 to address life expectancy concerns,[24] while Uzbekistan's government ordered sterilization to improve maternal and infant mortality rates, violating women's reproductive rights.[27]

In India, an amendment bill promoting a two-child policy offered incentives for sterilization, leading to poor-quality care and complications caused by the high number of procedures incentivized.[38,39,57] Cases of medical professionals and social workers coercing sterilization have been documented, such as in the *IV v. Bolivia* case, where a Peruvian immigrant was sterilized during an emergency cesarean without valid consent.[32] In the United States, an investigation revealed that between 1973 and 1976, 3406 Native American women were sterilized by the Indian Health system without proper consent.[44] Similarly, between 2005 and 2013, 148 women in California correctional facilities were sterilized by private physicians without informed consent.[47] Historical cases, such as Dr. Carl Clauberg's 1941 sterilization experiments on women incarcerated in a concentration camp, further illustrate the unethical use of vulnerable populations in sterilization practices.[50]

Medical associations, though sometimes silent, play a crucial role in addressing these injustices. For example, the CEDAW ordered Hungary in 2007 to compensate a woman whose reproductive rights were violated due to flawed consent, highlighting the importance of institutional accountability.[58]

Developed tools to improve the consent process

In the 1970s, the US federal government introduced the Medicaid consent form for sterilization (HHS-687) to protect vulnerable groups from forced and coerced sterilization. The form required explanations of the procedure's irreversible nature, discussion of alternatives, details of the operation and potential complications, a 30-day cooling-off period (or 72 hours in emergencies), an age requirement of 21 years or older, interpreter details if needed, and the physician's name and signature.[46]

However, the form has faced criticism, particularly regarding the 30-day waiting period. Critics such as Verkuyl argue that this requirement is overly restrictive, especially when compared with emergency cesarean sections, and may prevent women who have already considered their family size from accessing timely sterilization.[52] Studies have shown that the form intended to protect has inadvertently created barriers for vulnerable women, with 37%–51% of the intended population being unable to access desired medical services.[46] Brown and Chor also criticized the 30-day waiting period, calling it an ethical flaw that hinders women's access to desired contraception, and urged for improvements in the consent process while safeguarding the rights of those choosing permanent contraception.[17]

Legal considerations

Reproductive justice frameworks

Forced sterilization is recognized as a crime against humanity, with international bodies working towards upholding women's reproductive rights. Every woman, regardless of socioeconomic status, has the right to control her own body and make decisions about her fertility. However, this right must be balanced with the responsibility to provide for the basic needs of their offspring, such as shelter, food, clothing, and care. Women in precarious situations, such as those living in poverty or with drug addictions, often rely on government and charitable support for these needs, making them particularly vulnerable. Studies have highlighted that women in these situations, such as those in Peru, India, Uzbekistan, and the United States, often face reproductive coercion.[23,26,27,59] These women, described by Butler as living in "politically induced conditions" of insecurity and instability, require government-supported programs that raise awareness about reproductive rights and offer access to long-term, reversible contraceptives, along with education on health and well-being.[15]

Similarly, women living with HIV have been coerced into permanent contraception to prevent vertical transmission of the disease. Instead, these women should be fully informed about the disease's

transmission risks relative to their viral load, and the importance of treatment compliance and be counseled on long-term reversible contraception options to make truly informed decisions.[34,37]

Who should obtain informed consent?

Informed consent is both an ethical and legal requirement before sterilization. However, written consent—a signed form—is not sufficient on its own. True informed consent involves several key processes: (a) a clear explanation of the proposed plan and procedure, including the consequences, risks, and whether the sterilization is reversible or irreversible; (b) informing the patient that they can withdraw consent at any time before the treatment; (c) obtaining the patient's signature on the prescribed consent form; and (d) ensuring that consent is obtained before the onset of labor by the physician performing the procedure. Additionally, it is advisable to confirm with the patient whether the consent still holds, as seen in the *Pandie v Isaacs* case.[43] The Medicaid consent form for sterilization requires the physician to counsel the patient on the procedure, with the physician's name and signature validating the consent.[46] This is accepted globally as standard practice, with the responsibility of obtaining consent resting on the physician performing the procedure.

Psychological and emotional impact and redressing

Forced sterilization has significantly impacted women's physical and mental health, particularly among those from lower socioeconomic backgrounds with limited access to justice. These women have endured forced sterilization more frequently, leading to deep mistrust between them and the medical community. Rebuilding this trust requires thorough investigations of all eugenic campaigns, full disclosures, apologies, and preserving findings in national archives. Additionally, erecting monuments and museums to educate future generations and proactive healthcare measures to prevent recurrence, are crucial steps.[16,40,55] It has also been suggested that the United Nations should establish policies and regulations concerning female sterilization.[58] In countries with time limits on compensation for victims, such limits should be removed to allow affected individuals to receive the compensation and legal remedies they deserve.[54]

Medical professionals must remain vigilant regarding the history of coerced sterilizations and report any discovered cases to state officials. This would enable a comprehensive review of past and current health records to assess the scope of the issue. Anonymous reporting platforms should be established to protect medical professionals from potential retaliation, as highlighted in the case of obstetrics resident physician Bernard Rosenfeld.[53]

4 | CONCLUSIONS

4.1 | Comparison with existing literature

This scoping review critically examines the informed consent process and ethical concerns surrounding female sterilization, a permanent contraceptive method. Female sterilization, a contraceptive method commonplace since the 19th century, is fraught with ethical complexities primarily due to instances of coerced and nonconsensual practices. The review's findings underscore the vital importance of informed consent as a cornerstone of ethical medical practice and patient autonomy. The review elucidates how these coercive practices are not remnants of a bygone era but persist in various forms worldwide, facilitated by flaws in the informed consent process.

The findings from this scoping review align with existing literature, underscoring persistent ethical challenges in the informed consent process for female sterilization, particularly regarding forced or coerced procedures. Previous studies have shown that these practices disproportionately impact vulnerable populations, especially those dependent on government health care, as Sifris[16] and Lawrence[55] highlighted. Historical cases, such as those documented by Stern[56] in the United States and Holt[27] in Uzbekistan, further reveal a pattern of reproductive injustice driven by systemic inequalities and discriminatory policies.

A significant finding of this review is the identification of vulnerable populations, particularly those dependent on government health care, as being at increased risk of forced sterilization. Socioeconomic factors further exacerbate this vulnerability, revealing more profound systemic inequities within global healthcare systems. For example, the work by Rowlands and Wale[29] and Ghandakly and Fabi[18] demonstrates how women living with HIV and immigrant women are particularly vulnerable to coercive sterilization practices because of their reliance on state-funded health care and the additional barriers they face, such as language and social stigma. These cases starkly violate the principles of autonomy and nonmaleficence, which are fundamental to medical ethics. The literature underscores the urgent need for comprehensive and culturally sensitive mechanisms to protect these individuals' rights and ensure that their reproductive choices are respected and informed.

The review's extensive analysis of existing literature reveals a broad consensus among international bodies on the need to improve the consent process for female sterilization. Despite recommendations from FIGO and ACOG, there remains a significant lack of standardized tools and procedures, especially in LMICs. This gap, as noted by Verkuyl,[52] highlights the failure of current policies to protect women's reproductive rights, creating substantial barriers to accessing quality health care. These persistent issues, despite well-known solutions, raise concerns about the global commitment to upholding reproductive rights and medical ethics, emphasizing the need for a cultural shift towards respecting patient autonomy and providing comprehensive counseling on contraceptive options. Moreover, attention is drawn to the ethical dilemma of sterilization without informed consent and the often-irrevocable impact it has on women's lives. Vulnerable groups, especially women living with HIV, for example, who are accessing government health care, are at risk of forced sterilization by government entities, social workers, and medical professionals. It is important to distinguish this from sterilization regret, which the ACOG has noted to be more common in women younger than 30 years, who should rather be counseled and offered long-term reversible contraceptives.

The forced sterilization practices documented across various regions not only violate human rights but also exacerbate the stigmatization and marginalization of vulnerable groups. Similar findings have been highlighted by Rowlands and Wale[29] and Smaw,[40] who documented how coercive sterilization practices deepen social inequities and disproportionately affect marginalized communities. These practices underscore the urgent need for the medical community to reflect on its ethical obligations and ensure that consent processes are rigorous and genuinely respect patient autonomy. While developing standardized consent tools is crucial, fostering a cultural shift within the medical community towards greater respect for patient autonomy is equally important. This shift requires an acknowledgment of the complex socioeconomic factors influencing health decisions, as noted by Stern,[56] and a recognition of the profound implications of sterilization on women's lives. Comprehensive counseling, which includes discussing alternative contraceptive options, is essential to ensure that women's reproductive rights are fully respected and protected.

4.2 | Strengths and limitations

This scoping review offers a comprehensive analysis of the informed consent process and the ethical challenges surrounding female sterilization. One of its key strengths lies in the breadth of its literature search, which spanned multiple databases and included a wide range of studies from different regions, particularly focusing on both HICs and LMICs. The review's thorough methodology, including a two-stage screening process and thematic synthesis, ensures that the findings are robust and relevant. Additionally, the review sheds light on vulnerable populations disproportionately affected by forced sterilization, providing valuable insights into systemic inequities within global healthcare systems. By highlighting the gaps in existing consent processes, especially in LMICs, the review underscores the urgent need for standardized tools and procedures, contributing to the global discourse on reproductive rights and medical ethics.

However, the review is not without its limitations. One significant limitation is the exclusion of non–English language publications and gray literature, which may have led to the omission of important studies from regions where forced sterilization practices are prevalent. Additionally, the review relies heavily on existing literature, which may introduce a degree of bias if the included studies themselves have methodological weaknesses. The lack of a formal risk of bias assessment, while acknowledged, could also impact the overall reliability of the findings. Finally, the review focuses on the ethical aspects of informed consent without delving deeply into the legal frameworks governing sterilization practices across different countries, which could have provided a more holistic understanding of the issue.

4.3 | Implications

This scoping review highlights the critical ethical challenges identified in the informed consent process for female sterilization, particularly regarding forced sterilization. The review reveals that these challenges persist globally, disproportionately affecting vulnerable populations, especially those reliant on government health care. It underscores the significant ethical violations, including the infringement on women's autonomy and the inadequacy of existing consent processes. Despite international recommendations, there remains a lack of standardized tools to ensure ethical and informed consent, particularly in LMIC. The review concludes that there is an urgent need for the obstetrics and gynecology community to develop and implement standardized consent tools to safeguard women's reproductive rights and prevent forced sterilization practices.

AUTHOR CONTRIBUTIONS

This article forms part of SMM's MMed (O&G). SMM and SA defined the research question, SMM developed the research protocol, and SA and SMM were responsible for data collection, analysis, and compilation of the article. CC provided input on ethical aspects and the compilation of the article.

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REFERENCES

1. Scott A, Glasier A. Contraceptive sterilization: global issues and trends. *Bull World Health Organ*. 2003;81(2):146-147. doi:10.1590/S0042-96862003000200013
2. Siegler AM, Grunebaum A. The 100th anniversary of tubal sterilization. *Fertil Steril*. 1980;34(6):610-613.
3. Braaten KP, Dutton C. Overview of female permanent contraception. UpToDate. Available at https://medilib.ir/uptodate/show/101560 Accessed on 23 December 2023.
4. Mann JM, Gostin L, Gruskin S, Brennan T, Lazzarini Z, Fineberg H. Health and human rights in health rights. *Routledge*. 2017;1(1):6-23.
5. The Constitution of the Republic of South Africa, 1996
6. Gilmore S, Moffett L. Redressing forced sterilisation: the role of the medical profession. *BJOG*. 2020;127(8):923-926. doi:10.1111/1471-0528.16204
7. Beauchamp TL, Childress JF. *Principles of Biomedical Ethics*. 5th ed. Oxford University Press; 2001.
8. Autonomy DJ. Internet encyclopedia of philosophy. *A Peer-Reviewed Academic Resource*. 2019;2019: Accessed on 23 December 2023.

9. Strode A, Mthembu S, Essack Z. "She made up a choice for me": 22 HIV-positive women's experiences of involuntary sterilization in two south African provinces. *Reprod Health Matters*. 2012;20(sup39):61-69.
10. Shawana C, Ryan C, Ali A. Forced or coerced sterilization in Canada: an overview of recommendations for moving forward. *International Journal of Indigenoushealth*. 2021;16:275-290. doi:10.32799/ijih.v16i1.33369
11. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *Int J Soc Res Methodol*. 2005;8:19-32. doi:10.1080/1364557032000119616
12. Zite N, Wallace L. Use of a low-literacy informed consent form to improve Women's understanding of tubal sterilization: a randomized controlled trial. *Obstet Gynecol*. 2011;117:1160-1166. doi:10.1097/AOG.0b013e318213cbb1
13. Sifris R. Involuntary sterilization of HIV-positive women: an example of intersectional discrimination. *Hum Rights Q*. 2015;37(2):464-491. http://www.jstor.org/stable/24518326
14. Carpio MV. The lost generation: American Indian women and sterilization abuse. 2004;31:40-53.
15. del Aguila V. Precarious lives: forced sterilisation and the struggle for reproductive justice in Peru. *Glob Public Health*. 2022;17:100-114. doi:10.1080/17441692.2020.1850831
16. Patel P. Forced sterilization of women as discrimination. *Public Health Rev*. 2017;38:1-2. doi:10.1186/s40985-017-0060-9
17. Fine S. Adding injury to injury: ethical implications of the Medicaid sterilization consent regulations. *Obstet Gynecol*. 2014;124(3):636. doi:10.1097/AOG.0000000000000441
18. Ghandakly EC, Fabi R. Sterilization in US immigration and customs Enforcement's (ICE's) detention: ethical failures and systemic injustice. *Am J Public Health*. 2021;111(5):832-834. doi:10.2105/AJPH.2021.306186
19. Krosnar K. Report says 100 Roma women have been forcibly sterilised in Slovakia. *BMJ (Clinical Research Ed)*. 2003;326(7384):302. doi:10.1136/bmj.326.7384.302/d
20. Das A. The ethical implications of the targeted population programme proposed by the UPA. *Indian J Med Ethics*. 2005;2(1):10-11. doi:10.20529/IJME.2005.005
21. Remez L. Offering a woman sterilization during an emergency cesarean section may sometimes Be appropriate. *Int Fam Plan Perspect*. 2003;29(1):52. doi:10.2307/3181005
22. Bouma-Johnston H, Ponsaran R, Arora K. Perceptions and practice of state medicaid officials regarding informed consent for female sterilization. *Contraception*. 2020;102(5):368-375. doi:10.1016/j.contraception.2020.07.092
23. Morgan M. The payment of drug addicts to increase their sterilisation rate is morally unjustified and not simply 'a Fine balance'. *J Obstet Gynaecol*. 2004;24:119-123. doi:10.1080/01443610410001645361
24. Ahmad K. Swaziland debates sterilisation of HIV patients. *Lancet*. 2000;356(9226):321. doi:10.1016/S0140-6736(05)73610-2
25. Ramsay S. Enforced sterilisations in Sweden confirmed. *Lancet*. 2000;355(9211):1252. doi:10.1016/S0140-6736(05)74697-3
26. Cordova-Marks F, Fennimore N, Bruegl A, Erdrich J. What should physicians consider about American Indian/Alaska native Women's reproductive freedom? *AMA J Ethics*. 2020;22(10):E845-E850. doi:10.1001/amajethics.2020.845
27. Holt E. Uzbekistan accused of forced sterilisation campaign. *Lancet*. 2012;379(9835):2415. doi:10.1016/s0140-6736(12)61050-2
28. O'Connell C, Zampas C. The human rights impact of gender stereotyping in the context of reproductive health care. *Int J Gynaecol Obstet*. 2019;144(1):116-121. doi:10.1002/ijgo.12693
29. Rowlands S, Wale J. Sterilisations at delivery or after childbirth: addressing continuing abuses in the consent process. *Glob Public Health*. 2019;14(8):1153-1166. doi:10.1080/17441692.2019.1583265
30. Permanent contraception: ethical issues and considerations. Committee statement No. 8. American College of Obstetricians and Gynecologists. *Obstet Gynecol*. 2024;143:e31-e39. doi:10.1097/aog.0000000000002013
31. Cook RJ, Dickens BM. Voluntary and involuntary sterilization: denials and abuses of rights. *Int J Gynaecol Obstet*. 2000;68(1):61-67. doi:10.1016/s0020-7292(99)00193-9
32. Hevia M, Constantin A. Gendered power relations and informed consent: the *I.V. v. Bolivia* case. *Health Hum Rights*. 2018;20(2):197-203. PMID: 30568413; PMCID: PMC6293361.
33. Raine SP. Federal sterilization policy: unintended consequences. *The Virtual Mentor*. 2012;14(2):152-157. doi:10.1001/virtualmentor.2012.14.2.mhst1-1202
34. Kendall T, Albert C. Experiences of coercion to sterilize and forced sterilization among women living with HIV in Latin America. *J Int AIDS Soc*. 2015;18(1):19462. doi:10.7448/IAS.18.1.19462.
35. Whatcott J. No selves to consent: Women's prisons, sterilization, and the biopolitics of informed consent. *Signs J Women Cult Soc*. 2018;44(1):131-153.
36. Dahiya P, Duhan L, Singh S, Dahiya N. Tubal sterilisation without consent: a case report. *Indian J Med Ethics*. 2016;1(2):114-115. doi:10.20529/IJME.2016.030
37. Bi S, Klusty T. Forced sterilizations of HIV-positive women: a global ethics and policy failure. *AMA J Ethics*. 2015;17(10):952-957. doi:10.1001/journalofethics.2015.17.10.pfor2-1510
38. Wale J, Rowlands S. Incentivised sterilisation: lessons from India and for the future. *Eur J Contracept Reprod Health Care*. 2020;25(4):314-318. doi:10.1080/13625187.2020.1766015
39. Das A, Contractor S. India's latest sterilisation camp massacre. *BMJ (Clinical Research Ed)*. 2014;349:g7282. doi:10.1136/bmj.g7282
40. Smaw ED. Uterus collectors: the case for reproductive justice for African American, native American, and Hispanic American female victims of eugenics programs in the United States. *Bioethics*. 2022;36(3):318-327. doi:10.1111/bioe.12977
41. Aronson SM. The right of the state to sterilize. *R I Med J*. 2006;89(6):193.
42. Collier R. Reports of coerced sterilization of indigenous women in Canada mirrors shameful past. *CMAJ*. 2017;189(33):E1080-E1081. doi:10.1503/cmaj.1095471
43. Badul CJ, Strode A, Singh PP. Obtaining informed consent for a sterilisation in the light of recent case law. *South African Medical Journal*. 2018;108(7):557-558. doi:10.7196/SAMJ.2018.v108i7.13141
44. Rutecki GW. Forced sterilization of native Americans: later twentieth century physician cooperation with national eugenic policies? *Ethics and Medicine*. 2011;27:33-42.
45. Access to Postpartum Sterilization. ACOG Committee opinion, number 827. *Obstet Gynecol*. 2021;137(6):e169-e176. doi:10.1097/AOG.0000000000004381
46. Block-Abraham D, Arora KS, Tate D, Gee RE. Medicaid consent to sterilization forms: historical, practical, ethical, and advocacy considerations. *Clin Obstet Gynecol*. 2015;58(2):409-417. doi:10.1097/GRF.0000000000000110
47. Fofana MO. Time and time again: the reincarnations of coerced sterilisation. *J Med Ethics*. 2022;48(11):805-809. doi:10.1136/medethics-2020-106924
48. FIGO Committee for Ethical Aspects of Human Reproduction and Women's Health. Female contraceptive sterilization. *Int J Gynaecol Obstet*. 2011;115(1):88-89. doi:10.1016/j.ijgo.2011.07.004
49. Chingore-Munazvo N, Furman K, Raw A, Slabbert M. Chronicles of communication and power: informed consent to sterilisation in the Namibian supreme Court's LM judgment of 2015. *Theor Med Bioeth*. 2017;38(2):145-162. doi:10.1007/s11017-017-9405-0
50. Georges JM, Benedict S. An ethics of testimony: prisoner nurses at Auschwitz. *ANS Adv Nurs Sci*. 2006;29(2):161-169. doi:10.1097/00012272-200604000-00009
51. Lucke JC, Hall WD. Under what conditions is it ethical to offer incentives to encourage drug-using women to use long-acting

forms of contraception? *Addiction*. 2012;107(6):1036-1041. doi:10.1111/j.1360-0443.2011.03699.x
52. Verkuyl DA. FIGO's ethical recommendations on female sterilisation will do more harm than good: a commentary. *J Med Ethics*. 2015;41(6):478-487. doi:10.1136/medethics-2013-101827
53. Kluchin R. How should a physician respond to discovering her patient has been forcibly sterilized? *AMA J Ethics*. 2021;23(1):E18-E25. doi:10.1001/amajethics.2021.18
54. Albert G, Szilvasi M. Intersectional discrimination of Romani women forcibly sterilized in the former Czechoslovakia and Czech Republic. *Health Hum Rights*. 2017;19(2):23-34. PMID: 29302160; PMCID: PMC5739354.
55. Lawrence J. The Indian Health Service and the sterilization of native American women. *American Indian Quarterly*. 2000;24(3):400-419. doi:10.1353/aiq.2000.0008
56. Stern AM. Eugenics, sterilization, and historical memory in the United States. *Historia, Ciencias, Saude—Manguinhos*. 2016;23(1):195-212. doi:10.1590/S0104-59702016000500011
57. Wilson K. For reproductive justice in an era of gates and Modi: the violence of India's population policies. *Fem Rev*. 2018;119(1):89-105. doi:10.1057/s41305-018-0112-0
58. Zampas C, Lamačková A. Forced and coerced sterilization of women in Europe. *Int J Gynaecol Obstet*. 2011;114(2):163-166. doi:10.1016/j.ijgo.2011.05.002
59. Vega CM. Sterilization offer to addicts reopens ethics issue. *The New York Times on the Web*. 2003;B1-B2. https://www.nytimes.com/2003/01/06/nyregion/sterilization-offer-to-addicts-reopens-ethics-issue.html Accessed on 23 December 2023.
60. FIGO Committee on Ethical and Professional Aspects of Human Reproduction and Women's Health. Guideline 001: professionalism in obstetric and gynecologic practice. In: Chervenak FA, McCullough LB, eds. *FIGO Ethics and Professionalism Guidelines for Obstetrics and Gynecology*. FIGO; 2021:8-14.
61. RCOG. Female sterilisation: Consent Advice No. 3 Available at https://www.rcog.org.uk/media/gcsnxxcu/consent-advice-3-2016.pdf
62. Sterilisation Bill [B 78B-98] (1998). Available at chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.gov.za/sites/default/files/gcis_document/201409/b78b-98.pdf Accessed on 11 December 2023
63. Provincial Administration Western Cape: Department of Health Directorate. Provincial policy, standardised guidelines and protocols on the management of sterilisation services. Available at chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.westerncape.gov.za/text/2003/revised_sterlisation_policy.pdf Accessed on 11 December 2023
64. HPCSA. General ethical guidelines for reproductive health. Available at chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.hpcsa.co.za/Uploads/professional_practice/ethics/Booklet_8_Reproductive_Health_September_2016.pdf
65. Convention on the Elimination of All Forms of Discrimination against Women: Adopted and opened for signature, ratification and accession by General Assembly resolution Available at: https://www.ohchr.org/Documents/ProfessionalInterest/cedaw.pdf Accessed 15 December 2023

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