

Assessment of the Public Perception and Acceptability of Gestational Surrogacy as a Form of Assisted Reproductive Technology : A Systematic Review

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Abstract

Infertility, which is the inability of a couple to achieve conception after 12 months (or six months if the female is 35 year or more) of regular unprotected sexual intercourse of at least two to three times a week, is a global public health concern. The incapacitation of many women to make use of their uterus due to absence or disease and the advent of a new family structure of same-sex marriage has drawn a global attention to a forgotten ancient practice of surrogacy. The purpose of the study is to review studies in order to know public perception and acceptability of gestational surrogacy as a form of ART. A Pub-Med search was performed on August 25 and 26, 2025. Primary articles published between Jan 2015 and August 2025 that investigated the public perception and acceptability of gestational surrogacy as a form of ART and determinants of these perception and acceptability were sought for. Snowballing to select references from the selected publications were also made and no publication selected. The following were keywords used for the search and the publications yielded: Category 1: Acceptability, Surrogacy, Assisted reproductive technology (ART) = 33 publications. Category 2: Public perception, Acceptability, Surrogacy, ART=2 publications. Category 3: Assessment, Public perception, Acceptability, Surrogacy, ART =1 publication. This gave a total of 36 publications. Of the 33 publications yielded in category 1, only 2 met the study inclusion criteria. Out of the 2 publications in category 2, 1 met the inclusion criteria. For category 3, the only 1 publication did not meet the inclusion criteria. This gave a total of three (3) publications that were selected and used for study. Consequently, 33 studies were excluded, leaving 3 studies for final review. The review has clearly shown that there is a gap of information on the public perception and acceptability of gestational surrogacy as a form of ART. There is need to bridge this gap by carrying out research works in this area.

Keywords: Public Perception and Acceptability, Gestational Surrogacy, Assisted Reproductive Technology.

Introduction

Infertility, which is the inability of a couple (male and female) to achieve conception after 12 months (or six months if the female is 35 year or more) of regular unprotected sexual intercourse of at least two to three times a week (Torres et al., 2019; Shenfield et al., 2025) is a public health concern globally. This is particularly important because one of the major reasons for marriage especially in Africa is procreation and when no pregnancy occurs after a few months of marriage, the family is set up for crisis with blames, accusations and counter accusations flying between the couples (UN, 2015; Obuna & Igwe, 2023).

The advent of Assisted Reproductive technology (ART) has demystified infertility and brought its consequences to their knees as almost every couple who needs a child can get

through one form of ART or the other (Torres et al., 2017; Borgh & Wyns, 2018). However, the high cost of ART world wide has again limited the benefits of this great and family-saving technology as the not well-to do couples may not be able to afford its services due to cost (Wennberg et al., 2016; Brannstrom et al., 2015).

ART is a form of infertility treatment modality involving complex laboratory manipulation of gametes to form embryos which are subsequently transferred into the prepared endometrial cavity of the recipient mother or surrogate mother who carries it until term and delivers (Anwar & Anwar, 2016).

There are various types of ART some of which have been discarded because of its complications (Anwar & Anwar,

2016) as more knowledge and skills on ART emerge (Lindsay & Vitrikas, 2015). For example gamete intrafallopian tube transfer (GIFT) and zygote intrafallopian tube transfer (ZIFT) are no longer in use because of a lot of complications associated with them. The current ART in clinical practice include: In vitro Fertilization and Embryo Transfer (IVF-ET), Intracytoplasmic Sperm Injection (ICSI), intramitochondrial sperm injection (IMSI) and gestational surrogacy (Esteves et al., 2023).

Indications for ART include: male factor infertility, ovarian dysfunction, peri tubal factors, cancer treatment, same-sex marriage, single parenting, any contra-indication to pregnancy, among others (Piersanti et al., 2021; Piersanti et al., 2025)

The subject of surrogacy has been as old as the book of Genesis which recorded a form of surrogacy where Sarah's maid acted as a surrogate mother to Abraham and his wife (Genesis, 16:4; Crockin et al., 2020). The advent of IVF has modernized and globalized the subject of surrogacy and introduced a new dimension of gestational surrogacy (Crockin, et al., 2020).

Surrogacy is a form of medically-assisted procreation (MAP) in which a woman "lends" her uterus to carry out a pregnancy on behalf of a third party. Surrogacy is an important method of assisted reproductive technology wherein a woman carries pregnancy for another couple. Torres et al. (2019); Piersanti et al. (2021).

Surrogacy is that aspect of assisted reproductive technology (ART) practice in which a person becomes pregnant, carries, and delivers a child on behalf of another couple/person, who are the intended parent (Torres et al., 2019). It is an important medical service for all those couples who would otherwise not have been able to produce a child (Patel et al., 2018; Piersanti et al., 2021).

There are pathological conditions, such as uterine agenesis or hysterectomy outcomes, that may prevent prospective mothers from becoming pregnant or conditions that could prevent a woman from carrying a pregnancy to term such as persistent recurrent miscarriage, or medical conditions such as kidney or heart diseases in which pregnancy is contraindicated; such patients may consider finding a surrogate mother (Piersanti et al., 2021; Piersanti et al., 2025). Many issues relating to surrogacy remain unresolved, with significant disagreements and controversy within the scientific community and public opinion on surrogacy (Torres et al., 2019; Shenfield et al., 2025).

In the last two decades, assisted reproductive technologies (ARTs), such as surrogacy, have helped couples address infertility. However, the use of these techniques can present moral, social, and psychological challenges for both the infertile parents and the surrogate mother (Piersanti et al., 2021).

A Number of couples around the world require surrogacy services for various reasons. Surrogacy is an especially

complex practice as the interests of the intended parents, the gestational carrier, and the future child may differ. Although this arrangement seems to be beneficial for all parties concerned, there are complex social, ethical, moral, and legal issues associated with it. It is these complexities that have made this practice unpopular in many parts of the world (Patel et al., 2018).

Some studies have reported general acceptability of non-commercial (altruistic) surrogacy as a method of assisted reproductive technology for specific indications (Bokek-Cohen et al., 2022). However, when using gestational surrogacy to form a family, it is essential that measures to protect all parties, to guarantee well-considered decision-making, and to minimize risks are put in place (Shenfield et al., 2025).

Surrogacy would be practiced harmoniously if delicate issues associated with surrogacy are addressed properly through appropriately framed laws which would protect the rights of surrogate mothers, intended parents, and child born through surrogacy (Patel et al., 2018).

Surrogacy can be classified based on:

Genetic Connection: Here there are two main types of surrogacy: gestational surrogacy and traditional surrogacy. This division is based on the genetic relationship between the surrogate mother and offspring.

Traditional (Genetic) Surrogacy

In traditional surrogacy, the surrogate mother (surrogate) is genetically related to the offspring of surrogacy. Here, the eggs of the surrogate and sperms of the intended father or donor sperms are used to form the embryos through IVF-ET, ICSI or IMSI or through intrauterine insemination and artificial insemination (Torres et al., 2017; Jones et al., 2019). Here the surrogate is the biological/genetic mother of the offspring of surrogacy (Patel et al., 2018). This type of surrogacy is often more legally complicated because of the genetic link between the surrogate and the offspring. Because of this, some countries have outlawed traditional surrogacy to avoid future controversies that may arise with the biological/genetic motherhood of the future offspring in order to protect the child from surrogacy (Zaami et al., 2019).

Gestational Surrogacy

Gestational surrogacy is a process where a surrogate, or gestational carrier, carries and gives birth to a baby for another person or couple, known as the intended parents. Unlike the traditional surrogacy, the gestational surrogate is not genetically related to the child, as the embryos are formed through IVF-ET, ICSI or IMSI, using eggs and sperms from the intended parents or donors (Bruno et al., 2020; Bertelli et al., 2019). It is commoner than traditional surrogacy (Milbank et al., 2016).

In gestational surrogacy, there is no genetic link between the surrogate mother and the offspring since she does not provide eggs (Milbank et al., 2016; Brännström et al., 2018).

Presence of Compensation of Surrogates: There are two main types here: Altruistic and Commercial.

Altruistic Surrogacy: In Altruistic surrogacy, there is no compensation. However, medical and pregnancy-related expenses of the surrogates are borne by the intended parents. Here, the surrogate mother is often a friend to the intended parents or a member of the family of the intended parents. The surrogate mother is not paid. She does it as a way of helping the intended parents (Yildiz et al., 2023; Shenfield et al., 2025).

Commercial Surrogacy: In commercial surrogacy, there is financial compensation beyond the medical and pregnancy-related expenses borne by the intended parents. Here, the surrogate mother is a paid/compensated professional who has no relationship and no friendship with the intended parents (Milbank, 2015; Medenica et al., 2024).

Level of involvement. Here there are two main types: Independent surrogacy and Agency-mediated surrogacy

Independent Surrogacy: In this type of surrogacy, the intended parents and the surrogate connect independently without third party mediation

Agency-mediated Surrogacy: Here, a third party is involved who mediates, helps to find and screen the surrogate on behalf of the intended parents (Afshani et al., 2016; Shenfield et al., 2025).

Finally, a combination of various types can exist. For example, gestational surrogacy can be altruistic and independent.

Many indications exist for gestational surrogacy and include: all forms of infertility, medical reasons that contra-indicate pregnancy, lack of uterus (uterine agenesis or hysterectomy). It also serves as a means of family building for same-sex male couple, transgender individuals or single unmarried men (Samadaee-Gelekholaee et al., 2016; Zaami et al., 2019). Other important indications for gestational surrogacy are advanced maternal age, radiotherapy and chemotherapy for female reproductive tract cancers and all forms of contra-indications for pregnancy (Brännström et al., 2015; Brännström et al., 2018).

A number steps/processes are involved in gestational surrogacy and include: the creation of embryos using the gametes of intended couples or donor gametes through invitro fertilization, ICSI or IMSI. The second step involves the transfer of the embryos into the prepared endometrial cavity of the surrogate mother. In the third step, the surrogate mother carries the pregnancy, delivers the baby(ies) and hands over the baby(ies) to the intended parents (Aznar & Martínez-Peris, 2019).

A number of issues are involved in gestational surrogacy and include: legal, ethical, religious, cultural, emotional/psychological, social, medical, economic, and genetic issues (Horsey, 2024).

Legal Issue: Gestational surrogacy, made possible with the introduction of in vitro fertilization, has expanded family building options while introducing novel challenges to established legal principles involving constitutional, contract, and family law as well as duty of care and negligence. Both legislatures and courts have grappled with how to apply these sometimes-competing areas of law to protect participants and professionals, and to create legally secure families (Susan et al., 2020). Gestational surrogacy imposes some questions such as: who is the legal mother, the biological/genetic mother or social mother of the offsprings of gestational surrogacy especially when the gametes are from donors?

Ethical Issues: A number of ethical issues on gestational surrogacy exist. While some argue that women's bodies are treated as commodities with tendency to exploit their vulnerabilities, others feel that it is their reproductive rights (Nakazawa et al., 2019; Susan et al., 2020). Some argue that surrogates' bodies are treated as objects, thereby undermining their human dignity and womanhood. Others argue that it is purely their human rights to make informed reproductive rights (Shenfield et al., 2025).

Psychological/Emotional Issues: There are also concerns about the psychological and emotional impact of gestational surrogacy on both the gestational surrogate and the child vis-à-vis issues of parenthood. The gestational surrogate mother can experience psychological and emotional distress when handing over the child she carried for nine months to someone she may or may not know. It can be a moment of emotional trauma irrespective of careful counseling prior to, during and after delivery of the baby. Sometimes, there may also be emotional/psychological distress on the intended parents especially if the gametes were not from them but donated by donors. The tendency to question the right to parenthood of such offspring may arise as there is no genetic connection between them and the child. In future, psychological/emotional issue may arise and affect the child when he/she grows up to question who the biological/genetic and legal parents were (Shenfield et al., 2025). The tendency to view the offspring of surrogacy as a commodity or as an object or product of surrogacy transaction is high (Patel et al., 2018).

Social Issues: Offsprings from gestational surrogacy may also face identity issues especially when the intended parents do not contribute any genetic materials or when the surrogacy is altruistic and the child grows up to know the altruistic gestational surrogate mother. Such a child may face social confusion about his/her origin. Other issue include, the issue of how the society will view and perceive an offspring of surrogacy to a single parent (Shenfield et al., 2025).

Religious Issues: Some religions abhor surrogacy of all forms. It has been reported that surrogacy is banned and not acceptable in some countries such as Iran due to religious inclinations (Yıldız et al., 2023). Some perceive it as a form of infidelity. How can a single father or mother convince a religious body that he/she did not play sexual dishonesty to get the child?

Cultural Issues: Some cultures do not accept offsprings of surrogacy. They are not integrated into their cultural settings and are therefore barred from cultural inheritance (Yildiz et al., 2023; Lutkiewicz et al., 2025).

Medical Issues: Gestational surrogates bear the blunt of the risks associated with pregnancy and child birth including possible maternal mortality/morbidity associated with pregnancy/childbirth. What if the woman dies? What if she sustains irreversible morbidity? Who takes responsibility for such possible mortality/morbidity? (Shenfield et al., 2025).

Genetic/Family Unit: Gestational surrogacy can create a complex genetic and family imbalance/relationship especially when the intended parents do not contribute their gametes and the gametes come from donors. The child may not be accepted in the family especially if such a family already has a biological/genetic child. The offspring of such gestational surrogacy without the gametes contribution from the intended parents may be perceived as genetically not a member of the family and therefore not accepted (Patel et al., 2018; Shenfield et al., 2025).

Economic Issues: There is tendency for gestational commercial surrogacy to be exploited by women from low socio-economic backgrounds to become surrogates for monetary gains. This may become a big problem as the less wealthy individuals who also want to have their children through gestational surrogacy may be denied of such privilege due to their inability to pay (Torres et al., 2019).

Regulation Issues: There is poor regulations of surrogacy all over the world. There is currently no globally, internationally, acceptable regulatory frame work on surrogacy binding the international community (Shenfield et al., 2025). Only few countries have their regulations in place. Nigeria does not have any regulation on surrogacy.

Public Perception and acceptability of gestational surrogacy as a form of ART

Public perception and acceptance of gestational surrogacy varies from country to country (Torres et al., 2019). The perception and acceptance by the public is influenced by a number of factors such as: religious inclination, cultural belief, legal and ethical concerns (Torres et al., 2019). However, there is a growing trend towards positive perception and acceptance of gestational surrogacy in some countries while others remain hesitance to its acceptance with some negative perception due to ethical, religious, cultural and other concerns (Torres et al., 2019). Torres et al. (2019) in a review reported that factors such as Catholicism and non-availability of clear legal frame work to protect the surrogates, intended parents and offsprings of surrogacy negatively affect the public perception and acceptance in South American countries.

Some countries such as Georgia, India, Russia and Ukraine accept both altruistic and commercial surrogacy while some other countries such as United Kingdom, Australia and Canada

accept Altruistic surrogacy but banned commercial surrogacy (Torres et al., 2019). Countries such as China, France, Italy and Germany prohibit all forms of surrogacy (Torres et al., 2017). While the USA does not have a national legal framework on commercial surrogacy but some states like California permit both commercial and altruistic surrogacy (Torres et al., 2017).

Some human rights advocates support all forms of surrogacy but advocates for regulation to protect all the parties involved while some religious groups and feminists advocates total ban on all forms of surrogacy (Torres et al., 2017). Wnnberg et al. (2015) reported that Swedish women were more acceptable to other forms of ART with exception to surrogacy.

In Nigeria and other African countries, Makinde et al. (2016) reported that surrogacy has not been universally accepted and is viewed negatively by many. This is made worse by the evil practice of baby factories which has further tainted the public perception and acceptance of surrogacy as well as the absence of regulatory framework in Nigeria and other African countries (Makinde et al., 2016).

Some studies have reported factors like public knowledge level about gestational surrogacy, economic concerns, presence or absence of alternative options to surrogacy as influencing the public perception and acceptance of gestational surrogacy (Shenfield et al., 2025).

The tendency to exploit the gestational surrogate mothers, potential psychological/emotional as well as social harms on the offsprings of surrogacy, complex moral and legal encumbrances have been adduced as some of the factors that portray gestational surrogacy in a bad light and therefore negatively affect the public perception and acceptance of gestational surrogacy (Patel et al., 2018).

A number of challenges limit the positive perception and acceptability of gestational surrogacy and include: medical risks, physical discomfort, emotional/psychological distress and family unity. Other challenging factors include financial costs, uncertainty about the success of ART prior to surrogacy, legal and ethical quagmire and relationship complexity between the surrogate and the intended parents.

The physical discomfort to the surrogate mother emanates from the rigorous procedures involved in IVF-ET, ICSI or IMSI. Pregnancy can also impose some form of physical restrictions to the surrogate's normal activities and life (Shenfield et al., 2025).

The psychology of carrying a baby for nine months only to give it out to a known or unknown family can exert a severe emotional distress. The surrogate mother may get attached to the baby after delivery and may therefore be hesitant in giving it out. If both the surrogate mother and the child get to know each other in the future especially in altruistic gestational surrogacy and decide to get bonded, how will the intended parents feel?. The intended parents may also experience some

form of emotional/psychological discomfort ranging from frustration, depression, anxiety and guilt especially in the event that the surrogate mother develops some complications (Patel et al., 2018). The intended parents may also be worried about the health and well-being of the surrogate mother and the baby and this may make them anxious (European Society of Human Reproduction and Embryology [ESHRE], 2022).

The surrogate mother is faced with all the risks a pregnant woman faces including maternal mortality and irreversible morbidity (Shenfield et al., 2025). The knowledge of these risks may scare anybody from accepting to act as a surrogate mother.

Gestational surrogacy can impact negatively on both the families of the surrogate mother and that of the intended parents and this may reduce acceptability and increase the negative perception of gestational surrogacy (Lutkiewicz et al., 2023; Shenfield et al., 2025) The tedious processes involved from IVF-ET or ICSI or IMSI can bring discomfort to the spouse and children of the surrogate mother. It is also capable of negatively affecting the family operations. This may bring family disunity.

Gestational surrogacy is cost intensive including the cost of IVF or ICSI or IMSI. Other costs include that of legal fees, cost of caring for the pregnancy and child birth and compensation/pay especially for commercial gestational surrogacy (Lutkiewicz et al., 2025). This is capable of discouraging the less well-to do families from embarking on gestational surrogacy.

The intended parents may be worried about the overall outcome of the entire process as there is no guarantee that the procedure will be successful. The IVF-ET, ICSI or IMSI may fail. There may be pregnancy failure at any stage. There may also be still birth or neonatal death. In fact, there can be failure at any stage before the process is completed. All these may lead to reduced public acceptance of surrogacy (Shenfield et al., 2025).

Gestational surrogacy involves a lot of legal complexes and processes, legal costs, contracts documentation between the intended parents and the surrogate mother as well as a number of ethical quagmires. These tend to reduce the public perception

and acceptance of gestational surrogacy (Lutkiewicz et al., 2025).

In altruistic independent gestational surrogacy, the surrogate mother is known to the intended parents. They communicate directly without a third party. There tends to be a better understanding between the two parties but in future, there may be crisis between the two if the friendship or family tie that brought them together gets soured. In commercial, agency-mediated gestational surrogacy, the two parties depend on a third party to communicate. Here there is no direct relationship. This tends to produce better outcome in the distant future as the two parties do not know each other (Horsey, 2024).

Objective

The objective of the study was to review studies in order to know the public perception and acceptability of gestational surrogacy as a form of assisted reproductive technology (ART), the factors that determine it and make appropriate policy recommendations.

Review Method

Study Area

The review used the entire globe as the study area and did not limit itself to a geographical area because the topic is of global significance and international implication.

There are seven continents of the world with a population of about 8,229,745,543 and include: Africa, Antarctica, Asia, Australia, Europe, North America and South America.

There are no primary inhabitants of Antarctica, being the only continents without a native population due to its extreme cold and isolation but human presence (temporary on rotating basis for tourism, research) is constant throughout the year.

The table A below shows the population, land mass and world share of the various continents of the world with Asia and Africa being the largest in terms of land mass and population. The population of Asia alone forms more than half of the world’s population (58.8%) while Asia and Africa’s population combined formed more than two-third of the world’s population (77.6%).

Table A: shows the current (2025) population, land mass and world share of the various continents.

S/N	Continent	Population 2025	Area (Km²)	Density (P/Km²)	World Share
1	Asia	4,835,320,061	31,033,131	156	58.7%
2	Africa	1,549,867,585	29,648,481	52	18.8%
3	Europe	742,556,239	22,134,710	34	9%
4	North America	617,286,638	21,329,947	29	7.5%
5	South America	438,105,376	17,461,112	25	5.3%
6	Australia/Oceania	46,609,644	8,486,460	5	0.6%
7	Antarctica	0	13,720,000	0	0%

Courtesy: <https://www.worldmeters.info> accessed 4th September, 2025

Study Design

This was a rapid review of primary research studies

Study Population

This consists of all primary studies published between January 2015 and August 2025 that investigated the public perception/attitude and acceptability of gestational surrogacy as a form of assisted reproductive technology (ART).

Inclusion Criteria

1. Studies done between Jan 2015 and August 2025;
2. Studies done in anywhere in the world;
3. Studies reported in English language
4. Studies that provided information on the public perception/attitude and acceptability of gestational surrogacy as a form of ART
5. Studies that are original (primary) articles and not review articles.

Exclusion Criteria

All studies that did not meet the inclusion criteria

Sampling Technique

A total population review of all studies that met the inclusion criteria was used.

Data Extraction

A data extraction form was prepared in line with the objectives of the review to capture the following information:

- Author(s)'s name
- Journal and date of publication
- Type of Study and study design
- Country of study
- Outcome of the study
- Public perception/attitude on gestational surrogacy as a form of ART
- Public acceptance of gestational surrogacy as a form of ART

Data Collection Methods

This study was a global survey and reported in English. It investigated the public perception and acceptability of gestational surrogacy as a form of assisted reproductive technology (ART).

A Pub-Med search was performed on August 25, 2025 and repeated on August 26, 2025. Original articles published between Jan 2015 and August 2025 that investigated the public perception and acceptability of gestational surrogacy as a form of assisted reproductive technology (ART) were sought for. Snowballing to select references from the selected publications were also made and no publication selected.

The following were keywords used for the search and the publications yielded:

Category 1: Acceptability, Surrogacy, Assisted reproductive technology (ART) = 33 publications;

Category 2: Public perception, Acceptability, Surrogacy, ART=2 publications;

Category 3: Assessment, Public perception, Acceptability, Surrogacy, ART =1 publication.

This gave a total of 36 publications.

The studies were further screened to exclude studies that did not fulfil the following criteria:

1. Studies done between Jan 2015 and August 2025;
2. Studies done on gestational surrogacy as a form of ART;
3. Studies that provided information on the public perception and acceptability of gestational surrogacy as a form of assisted reproductive technology (ART) and
4. Studies that are original articles and not review articles.

Of the 33 publications yielded in category 1, only 2 met the study inclusion criteria and were selected.

Out of the 2 publications in category 2, 1 met the inclusion criteria and was selected.

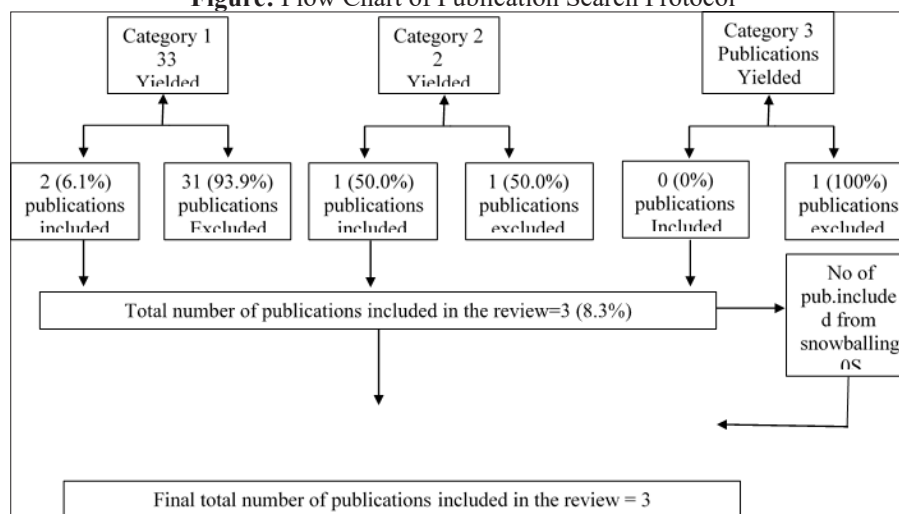
For category 3, the only 1 publication did not meet the inclusion criteria.

This gave a total of 3 publications. The flow chart of the selection procedure is shown below.

Consequently, 33 studies were excluded, leaving only 3 studies for final review.

The 3 studies were systematically reviewed with respect to the setting, country, type of study, public perception and acceptance of gestational surrogacy as a form of ART and authors.

Figure: Flow Chart of Publication Search Protocol



Results

There is surprisingly paucity of primary articles on gestational surrogacy as a form of ART. Out of the three studies that were selected two (2) came from Asia and one (1) from Europe depicting two distinct socio-religious backgrounds which gave this review a ground to make inferences.

There is general positive perception and acceptance of gestational surrogacy in the study done in Europe (Poland) while there is general negative perception and rejection of gestational surrogacy in the Asian (Iranian) studies.

In one of the studies done in Iran in which the infertile couples' perception and acceptance of surrogacy were assessed (Esmailivand et al., 2025), results showed there was no significant difference in the perception and acceptance of gestational surrogacy between female and male genders, age and years of infertility but the highly educated (beyond secondary) were less likely to positively perceive and accept gestational surrogacy while women who have had ART experience were more likely to positively perceive and accept gestational surrogacy than infertile couples who have never had ART experience.

The second study done in Iran (Bokek-Cohen et al., 2022) that assessed the perception and acceptance of Sunni Muslim Physicians towards gestational surrogacy as a form of ART showed that the Sunni Muslim Physicians rejected any form of ART that involved gametes and embryo donation and surrogacy. They perceived such type of ART as a violation of their religious beliefs as they viewed their religion as supreme.

The third study and done in Poland, Europe (Lutkiewicz et al., 2025) which was a cross-sectional study carried out in the community to assess the socio-demographic factors that determine and influence the perception and acceptance of gestational surrogacy as a form of ART showed that sexual orientation and religion were the strongest determinants of the perception and acceptance of gestational surrogacy.

It also showed that females, younger age, urban dwellers, secondary education holders, medical professionals, singles, non-heteronormative orientation and non-parents, viewed and accepted gestational surrogacy better than males, older age group, rural dwellers, individuals with education higher than secondary education, non-medical professionals, married couples, heterosexual orientation and current parents respectively. The study concluded that religion, sexual orientation, age, place of residence, education, professional exposure, marital status, and parenthood status are the socio-demographic determinants of the public perception and acceptance of gestational surrogacy as a form of ART.

Table 1- is the summary of the profile of the studies showing the setting/country, type of study, and Authors/journals.

Table 2- showed the summary of the profile of the studies showing the public perception and acceptance of gestational surrogacy as a form of ART

Table 3- showed the summary of the profile of the studies showing the factors that determine public perception and acceptance of gestational surrogacy as a form of ART.

While all the studies from the two different socio-religious backgrounds (Islam and Non-Islam, Asia and Europe) showed that individuals with strong religious beliefs and higher education negatively perceive and less likely accept gestational surrogacy as a form of ART, they differ in certain other factors that determine perception and acceptance of surrogacy as a form of ART: while in European study (Lutkiewicz et al., 2025), medical professionals and female genders were more likely to positively perceive and accept gestational surrogacy as a form of ART, the study in Iran (Bokek-Cohen et al., 2022) showed that the Sunni Muslim medical professionals negatively perceived and rejected gestational surrogacy as a form of ART while there was no difference in the gender perception and acceptance of gestational surrogacy.

Table 1: Summary of the profile of the studies showing the country/setting, type of study, and Authors/journals and year of publication.

S/N	Setting	Country	Type of study	Author & year of publication (reference)
1	Sunni Muslims Medical professional	Iran	C/S	Bokek-Cohen et al. (2022); Journal of Religion & Health 2022; 61(4):2876-2904.
2	Infertile couples	Iran	C/S	Esmailivand et al. (2025); Health Science reports 2025; 1(1): 1-6
3	Community based study	Poland	C/S	Lutkiewicz et al. (2025); Journal of Reproductive and Infant Psychology 2025; 2(1):1-16

Note: C/S=Cross-sectional study

Table 2: The summary of the profile of the studies showing public perception and acceptance of gestational surrogacy as a form of ART

S/N	Author & year of publication (reference)	Public Perception	Public Acceptance	Comments
1	Bokek-Cohen et al. (2022); Journal of Religion & Health 2022;	Negative	Rejected	Viewed all forms of ART involving surrogacy and gametes and embryo donations as against Islamic religion
2	Esmailvand et al. (2025); Health Science reports 2025	Mixture of negative and positive	Mixture of acceptance and rejection	Infertile couples with ART experience viewed and accepted better than non-ART experienced couples
3	Lutkiewicz et al. (2025); Journal of Reproductive and Infant Psychology 2025	Mixture	Mixture	Various factors affect acceptance and perception. But generally, gestational surrogacy is viewed and accepted as a form of ART

Table 3: Showing factors that determine perception and Acceptance of surrogacy as a form of ART

S/N	Author & year of publication (reference)	Factors	Perception	Acceptance
1	Bokek-Cohen et al. (2022); Journal of Religion & Health 2022	Islamic Religion, medical professionals	Negative	Negative
2	Esmailvand et al. (2025); Health Science reports 2025	Higher Education	Negative	Negative
3	Lutkiewicz et al. (2025); Journal of Reproductive and Infant Psychology 2025	Heteronormative orientation, female, urban dwellers, lower education, medical professionals, younger age, non-religious believers, singles and non-parents	Positive	Positive

Discussion

The study revealed that while some countries (e.g Italy) banned certain aspects of surrogacy such as surrogacy motherhood (gestational surrogacy) others like most African countries have no law or regulation guiding its practice (Pieranti et al., 2021). In order words some countries accepted some forms of surrogacy but refused gestational surrogacy (Piersanti et al., 2021).

There are divided opinions on the perception and acceptance of gestational surrogacy. While some advocate for a total ban because they feel the risks outweigh the gains, others have strong word in support of gestational surrogacy insisting that prohibiting it is tantamount to limiting the autonomy of the infertile couples to having children. (Piersanti et al., 2021). These divergent perceptions and acceptability of gestational surrogacy are not surprising as this portrays the divergent interests of various groups/stakeholders involved in the politics of gestational surrogacy.

The review has shown that the topic of gestational surrogacy, its perception and acceptability is very controversial. Perhaps this may be one of the reasons many countries have no regulations or law on the subject while some who started the process of developing legal and regulatory frame work on gestational surrogacy abandoned it (Piersanti et al., 2021)

The study showed that among factors that predict the perceptions and acceptance of surrogacy, religion and sexual orientation are the strongest factors (Lutkiewicz et al., 2025). This aligns with report that gestational surrogacy is not acceptable to some religious sects such as the Islamic faith

and the Catholics who view gestational surrogacy as a taboo (Deaonandan, 2020; Susan et al., 2020). This is not surprising because religion has always from ages influenced mankind in the way he thinks, perceives things and in the way he acts, because religion is all about belief and faith. Several authors report that those with secular viewpoints are more supportive of surrogacy than conservative religious believers who believe that surrogacy disrupts religious doctrines concerning natural conception and motherhood (Patel et al., 2018; Deaonandan, 2020; Yildiz et al., 2023; Lutkiewicz et al., 2025). Religious beliefs, particularly catholicism play key roles in shaping negative perception towards surrogacy (Lutkiewicz et al., 2025).

Couples with non-heteronormative orientation are more likely to accept surrogacy than couples with hetero sexual orientation. This is expected because there is no other method of getting children by same sex couples other than surrogacy and adoption. Other factors noted by Lutkiewicz et al. (2025) to influence acceptance of surrogacy include place of residence with the urban/city dwellers more likely to accept it than rural dwellers due to greater exposure and better enlightenment. Older couples were less likely to accept it than younger couples. This aligns with report that indicates that younger generations are more supportive, more likely to be influenced by shifting norms and increased exposure to diverse family structures (European society of human and Reproductive Embryology, ESHRE, 2022; Yildiz et al., 2023).

Parenthood status also influences the perception and acceptability of surrogacy (Lutkiewicz et al., 2025) with current parents (who already have children) less likely to accept

it than the non-parents status (who don't have children but intending and not intending to have). This is expected because the parents who already have children will not like to enter into the controversy of bringing into the family a genetically different child. More so, parents who are infertile or who have experienced child loss are likely going to hold positive view towards surrogacy than parents who have children because surrogacy offers them opportunity to realize their dream of parenting (Lutkiewicz et al., 2025).

Medical professionals were more supportive to acceptance of surrogacy in the European study but not so in the Iranian study (Bokek-Cohen et al., 2022; Lutkiewicz et al., 2025). This aligns with report that exposure to reproductive technology and diverse family-building methods through their professional experiences fosters more favourable views to surrogacy (Armund et al., 2018; Lutkiewicz et al., 2025). But the Iranian Muslim physician were more loyal to their religion demonstrating how powerful religion can influence one's exposure and profession.

Married individuals hold more negative perception and acceptance to surrogacy than single individuals. The single individuals are more likely to have neutral mindsets compared to the married who may not likely take decision independent of their spouses. This is the reason the divorced individuals (who now think and behave like the singles) were more positive to acceptance of surrogacy than married couples. This may be due to the possibility of the divorced more likely to have greater openness to alternative family building methods (Nakazawa et al., 2019; Lutkiewicz et al., 2025).

This study Esmailivand et al. (2025) showed that while there was no significant difference in the acceptability and perception of surrogacy by male and female gender, education affects it. The higher the education, the less likely hood of acceptance and the higher the negative perception.

This report by Esmailivand et al. (2025) on the influence of education on the perception and acceptance of surrogacy as a form of ART agrees with that of (Lutkiewicz et al., 2025) but differs in the aspect of the influence of gender on the perception and acceptance of surrogacy. Lutkiewicz et al. (2025) reported more acceptance of surrogacy by females than males. This is rather surprising because it is expected that education should create better enlightenment that will propel the more educated couples to accept surrogacy and also view it in a more positive light. The disparities in the gender acceptance of surrogacy by these reports may be attributed to the differences in the setting: Esmailivand et al. 2025 report was from Iranian women who are mostly Muslims while (Lutkiewicz et al., 2025) reported from an European society. European women are freer to air their view than Muslim women who may not have social and religious freedom to take decision on their own compared to European women.

This study showed the existing research gaps in the subject of gestational surrogacy especially in our environment. This

is not surprising because ART in general is still in its neonatal stage in our environment. The primary studies also did indicate the type of gestational surrogacy they investigated. There is need for urgent research works on gestational surrogacy in Africa, Nigeria and Ebonyi setting to fill this gap.

Policy Implication

In developing policy on surrogacy, it is vital to take note of the influence of socio-demographic factors that determine the perception and acceptance of surrogacy. These determinants will shape the policy direction on surrogacy and guide policy makers and legislators in the formulation of laws and regulations that will guide the practice of gestational surrogacy in globally.

Recommendation

There is urgent need for each country to formulate regulations and laws that will guide the practice of gestational surrogacy.

1. Policy makers should take into consideration the socio-religious factors operational in its environment while formulating the laws and regulations that will guide the practice of surrogacy
2. There is need for international collaboration in the practice gestational surrogacy to avoid surrogacy shopping where couples intended and willing surrogates in countries with restrictions on the practice of surrogacy will migrate to liberal countries to fulfil their dreams and procure the children they want.
3. There is need for more advocacy and enlightenment on gestational surrogacy to the general public, policy makers, legislators etc. for proper understanding of all that surrogacy entails.
4. There is need for more research on all aspects of surrogacy globally, in Africa, Nigeria and Ebonyi State in particular. This will provide evidence-based information that will serve as tool for decision making.
5. Any future policy and legislation on gestational surrogacy globally and in Nigeria in particular should be evidence-based and should be aimed at protecting all parties entangled in the web of gestational surrogacy including the surrogates, intending parents and the offspring of surrogacy.

Conclusion

The international regulation of surrogacy though expedient, is unlikely to be achieved in the near future because of divergent opinions, interests and beliefs. It is therefore necessary for individual countries to put policy and laws/regulations in place to guide the practice of gestational surrogacy in their countries in order to make the practice safe, ethical and protective of all interested parties (Horse, 2024).

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