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ASSISTED REPRODUCTIVE TECHNOLOGIES (ARTS) AND THE LAW IN PAKISTAN: A COMPARATIVE LEGAL STUDY

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Abstract

Assisted Reproductive Technologies (ARTs) have revolutionized the field of infertility treatment across the world ethical, legal, and religious issues, especially in the conservative Pakistani society. Although procedures like in-vitro fertilization (IVF) and surrogacy have become widely used, there is no detailed legal framework governing ARTs in Pakistan, resulting in uncertainties in right of parents, donor anonymity and the legitimacy of children. This study will give a comparative legal study of Pakistan and jurisdictions that have developed ART laws, including the United Kingdom, India, and Iran. It replaces emphasis on the concept of Pakistan being dependent on religious rulings (fatwas) and judicial discretion, where there is no legal system. The research highlights how legislation is necessary to exclude legal parentage, consent practices, rights of embryos and cross-country reproductive care. Through examining the best practices in the world and how they can be adjusted to fit the socio-religious environment of Pakistan, the paper proposes a moderate legal system that would guarantee reproductive freedom, yet protect the values of ethical and Islamic standards in assisted reproduction.

Introduction

In-vitro fertilization (IVF), surrogacy and donation of gametes are some of the Assisted Reproductive Technologies (ARTs) that have given hope to infertile couples all over the world (Hammond & Hamidi, 2025). Increasing demand for ARTs in low-fertility countries, where infertility among married couples is nearly a quarter on the rise with the growing medical science (Rodriguez-Diaz et al., 2023). The regulation and law reforms to control these practices have failed, however, to keep abreast with the advancements in medicine (Rodriguez-Wallberg et al., 2023; Tao, 2023).

The United Kingdom and India have codified ARTs (Gullo et al., 2023). Nevertheless, Pakistan still extensively employs Islamic jurisprudence and informal medical practice, that are not the case in other jurisdictions. With such non-formal regulation, there is legal uncertainty on these issues as the legitimacy, parental rights, anonymity of donors and the surrogacy arrangements (Mazzilli et al., 2023). Pakistan also has limitations in controlling the ARTs as it is

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highly religious and culturally-sensitive(Zafar et al., 2015).

Since the legal system of Pakistan is greatly influenced by Islamic values, any framework connected with ARTs should correspond to the Shariah law. Discussing the case in connection with the third-party gamete donation, some think that, in accordance with the Sunni tradition, this practice is not allowed, but the Shia tradition does not restrict itself to it, assuming that it is preconditioned by some conditions, including the Iranian model (Zafar et al., 2015). On the other hand ART (Regulation) Act, 2021, allows more ART practices in the environment of Indian law. The discrepancies in the jurisdictions regarding religious, legal and ethical status should force the comparative analysis of application of legally and culturally suitable framework in Pakistan to be implemented. The purpose of the paper is to critically analyze the existing ART practice in Pakistan against the existing global models to come up with a balanced, ethical and legally acceptable solution.

Research Justification

Assisted Reproductive Technologies (ARTs) have become a topical issue in Pakistan, where infertility is a serious problem impacting a considerable percentage of married couples, but is still a socially stigmatized and under-discussed topic. With the cultural condition of close attachment between parenthood and the stability of marriage, social acceptability, and continuity of the family, infertility may be a source of psychological distress, especially in women who have a higher burden. Whereas procedures such as IVF and ICSI are becoming more accessible in urban centers, a systematic study of the process of access, regulation, ethical governance, and the social implications of such procedures is lacking in Pakistan.

This study is warranted on various fronts. First, there is a policy gap: Pakistan does not have advanced national legislation governing ART practices, anonymity of donors, manipulation of embryos, and patient rights. Second, there exist religious and socio-cultural sensitivities about lineage (*nasab*) and third-party reproduction that need to be critically studied to make informed ethical guidelines aligned to Islamic jurisprudence. Third, inequalities in the economy impair access to ART, especially among more financially endowed populations, which pose a reproductive inequality and health justice issue. Lastly, patient experiences can be used to humanize the discussion and guide healthcare providers on psychosocial support requirements. The need to study ARTs in Pakistan is consequently not only significant to the biomedical development but also to formulate just, culturally competent and ethically sound reproductive healthcare policies.

Literature Review

The discussions about the Assisted Reproductive Technologies (ARTs) around the globe reveal the legal, ethical, and religious subtleties in their regulation (dos Santos & Silva, 2023). ART laws should serve to balance the right to reproductive autonomy with the rights of children, donors, and surrogates (Homanen et al., 2024). In other countries, including the United Kingdom, the legal parenthood, consent, and embryo storage laws are provided by the Human Fertilization and Embryology Act 1990 (amended in 2008), which regulates ARTs (Rodriguez-Wallberg et al., 2023). Also, India gained a lot with the help of the ART (Regulation) Act 2021 and Surrogacy (Regulation) Act 2021, which criminalize commercial surrogacy but offer a list of standards to be observed by the clinics and parentage (Hammond & Hamidi, 2025).

In contrast, the Pakistani literature about ARTs is scarce and mostly involves ethical statements and religious research. The scholars claim that there existed no codified law, no institutional control; the regulation of the practice of ART was entrusted to the regulation of the individual clinics and religious prescriptions (Merkison et al., 2023). Third-party reproduction, and in particular embryo donation, is not allowed by Sunni Islamic scholars, who fear the issue of lineage and inheritance. However, the Shiite jurisprudence, particularly in Iran, has come up with softer interpretations, which allow third-party ARTs with rules.

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The comparative legal studies present the argument that Pakistan is also sensitive to religion, as Iran is, but not a centralized regulatory institution, such as the Royan Institute in Iran. The judiciary has not given any consistent interpretation of ART disputes, and occasional case law is not binding precedent (Zafar et al., 2015). Such studies require medical practice to be aligned with the moral and religious values of structured laws. The experiences of ART users in Pakistan have also not empirical evaluated, which the study will deal with.

Historical Context of Assisted Reproductive Technologies in Pakistan

Infertility treatment has reached a new point with the advent of Assisted Reproductive Technologies (ARTs) in the world, with the birth of the first test-tube baby, Louise Brown, in 1978 (Tao, 2023). The nations such as the UK and USA enacted laws to deal with the ethical, social, and legal consequences of ARTs, especially regarding issues of embryo ownership, surrogacy, and anonymity of donors (Gaye et al., 2024). However, most countries were skeptical initially because of the fear of descent and validity (Rodriguez-Wallberg et al., 2023).

In Pakistan, the development of ART practices in the private healthcare sector started in the early 1990s when the practice was not regulated and legally permitte. The early ethical frameworks were influenced by the fact that the country was based on Islamic jurisprudence, mostly Sunni interpretations, and only the gametes of lawfully married couples were permitted to be used in IVF, and surrogacy and third-party donation were not allowed. In contrast to Iran, which adopted ARTs through a controlled Shi'a system (Zafar et al., 2015). Oversight mechanisms were not institutionalized in Pakistan. Policy-making was substituted by sporadic court interventions and fatwas, causing inconsistencies and the absence of protection to all stakeholders involved. This juridical gap continues even as there is an increased demand for ARTs in the country (Hammond & Hamidi, 2025).

Theoretical Context of Assisted Reproductive Technologies in Pakistan

The application of Assisted Reproductive Technologies (ARTs) like in Vitro Fertilization (IVF) and Intracytoplasmic Sperm Injection (ICSI) in Pakistan is in a very complex nexus between religion, law and socio-cultural practices, on one hand, and biomedical development on the other. In theory, ARTs can be discussed in terms of bioethical principles of autonomy, beneficence and justice as well as Islamic jurisprudential principles which determine reproductive legitimacy. The diagnosis of infertility may have a negative emotional impact and gendered stigma, especially on women – for many, parenthood is deeply connected to a sense of community and what it means to be married. ARTs are therefore not just medical but social apparatuses reinstate continuity in the family.

The Sunni jurists of most of Pakistan, in Islamic jurisprudence, permit ART procedures to be conducted only under a valid marital contract, which does not permit third-party gamete donation or surrogacy to preserve the lineage (NASAB). Regulatory and patient decision-making are very influenced by this religious prism. Moreover, structural inequalities are also reflected in the availability of ARTs: the high prices limit access to high-income and middle- and upper-income groups, which makes it questionable whether distributive justice applies. Another fact that is raised by feminist and sociological theories is that reproductive technologies may empower women and serve the patriarchal requirements of motherhood. Thus, ARTs are not negotiated practices that are guided by faith, law, culture, and socio-economic realities, but they are also technological in Pakistan.

Laws Regarding Assisted Reproductive Technologies in Pakistan

The legal system concerning assisted reproductive technologies (ARTs) in Pakistan is still inconsistent and uncodified. Unlike in other jurisdictions, a special federal statute has not yet been put in place in Pakistan to govern in vitro fertilization (IVF), surrogacy, sperm donation or

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embryo preservation. Instead, ART practices are guided by a synthesis of a set of constitutional values, Islamic jurisprudence, professional medical regulation and general civil and criminal law.

Articles 9 and 14 of the Constitution of Pakistan, 1973, provide a right to life and dignity to effect, could be interpreted to encompass reproductive autonomy within the law. They are, however, not absolute rights and are influenced by the Islamic norms, and Article 227 states that all laws should be in harmony with the injunctions of the Islamic religion. Consequently, most fertility centers in Pakistan have followed the philosophy of the Council of Islamic Ideology that only permits ART practices to be done by lawfully married couples. Third-party gamete donation (sperm or egg) and commercial surrogacy are typically unacceptable to the current religious opinion, as they have the potential to annihilate lineage (nasab), a core concept of Islamic family law.

At the regulatory level, that is, guidelines given by the Pakistan Medical and Dental Council (PMDC) and provincial healthcare commissions, clinics are regulated. These agencies are more concerned with professional standards, licensing and ethical conduct rather than issues of family law. Without any ART laws, parentage, custody, inheritance, and other disputes are addressed using the existing laws, including the Guardians and Wards Act of 1890 and the personal status laws.

The absence of comprehensive laws is a legal gray area for couples and children born of an ART and for the medical professionals. The necessity to establish a clearer statutory framework to balance the reproductive rights, child welfare, medical ethics and Islamic legal principles in the Pakistani socio-legal setting also arises due to the increased rates of fertility treatment in such cities as Karachi and Lahore.

Challenges for Assisted Reproductive Technologies in Pakistan

The Assisted Reproductive Technologies (ARTs) in Pakistan have provided hope to thousands of couples who have been diagnosed as infertile, but there is a huge challenge to expansion because of legal, social, ethical and institutional reasons. There is much social stigma attached to infertility, particularly when it comes to women who are mostly accused, regardless of the medical evidence. This has ensured that the majority of the couples receive treatment in secrecy and this limits openness, psychological counseling and informed decision-making.

Lack of a well-developed regulatory structure is one of the most acute problems. There is no specific Federal law in Pakistan that regulates IVF, surrogacy, donation of gametes and storage of embryos. The most important guidelines used in clinics are the use of professional guidelines that are provided by the Pakistan Medical and Dental Council and provincial health authorities. These bodies have the authority to decide on license and ethical issues, but they don't provide advice on parenthood, the ownership of the embryo, withdrawal of consent, or transnational reproduction. This is an area of law that is fuzzy, and both the client and the practitioner are left confused.

Another influence on the ART landscape is religious and ethical issues. In the field of marriage, the Council of Islamic Ideology has been very pro-ART, and has raised an objection to the use of third party sperm and egg donors as well as commercial surrogacy on the issue of lineage (nasab). Although these roles fit with the current social values, they narrow the range of available treatment options, and may cause desperate couples to go to unregulated clinics or even to foreign countries, where they may be exploited.

Barriers to access are also caused by economic barriers. ART processes are very expensive and are not normally reimbursable within a government health program or insurance program. It is highly restricted to cities and middle- and upper-class families, making it fertilize the treatment in a country where the majority cannot afford even simple medical treatment is largely out of reach. In addition, individuals are not aware of infertility as a medical condition, and this delays the treatment and diagnosis. Together with regulatory loopholes, social stigmatization and religious

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sensitivities, as well as economic inequalities, regulatory loopholes, social stigmatization and religious sensitivities combine to make ART a complex phenomenon, and it needs to be balanced between legislation, ethical standards, popular education and more accessible healthcare so that reproductive hope is not a victim of legal uncertainty and social victimization.

Opportunities for Assisted Reproductive Technologies in Pakistan

In Pakistan, Assisted Reproductive Technologies (ARTs) provide big prospects on the medical, legal, social and economic front. With marriage and parenthood being tightly linked to the individual identity and social acceptance in a society, infertility may lead to both severe emotional trauma and social stigma, especially among women. ART offers hope to a couple who would otherwise feel stigmatized, have poor relationships or be psychologically suffering. Through an increase in safe and ethical fertility services, a very sensitive yet widespread health issue can be approached compassionately in Pakistan.

One of the key opportunities is to create a transparent legal and regulatory framework. Presently, access to ART is largely governed in professional directives of the Pakistan Medical and Dental Council and the provincial healthcare institutions. Some of the laws regarding the use of IVF, the storage of embryos, consent, and parentage would offer some clarity in families, protection for children conceived using any of the above, and some accountability to clinics. There would also be a reduction of untamed treatments and in evil practices, all of which would be controlled by clear legislation that limits the cross-border treatments carried out. It also is an important chance for the harmonization of reproductive medicine with Islamic jurisprudence. The Council of Islamic Ideology has endorsed ART in marriage as a medium based on culture for the formulation of policy. The dialogue among religious experts, doctors and law makers can help draft ethical codes which take into account lineage (nasab), and also allow for responsible advances in science.

The development of ART services can empower the Pakistani healthcare sector economically. Investment in fertility clinics, training of reproductive experts, and research projects can generate competent jobs and minimize the necessity of medical tourism in other countries. Early diagnosis and treatment of infertility can be further promoted by public awareness campaigns. Finally, ART in Pakistan is not only a medical service but also a chance to unite science, law, ethics and compassion. Properly regulated and with the awareness of the population, it is possible to change the reproductive issues into a well-organized, humane and socially responsible contribution to healthcare.

Discussion

In Pakistan, the Assisted Reproductive Technologies (ARTs) are on the threshold of science, faith, law and the high social expectations. Barrenness in a community where having offspring is seen to be the most important accomplishment of marriage can be emotionally traumatizing and socially disgraced. ART offers hope, yet the procedure is conducted in a sensitive cultural and religious setting that outlines acceptance and restraint.

In statute, there is no specific ART law in Pakistan, although the professional body, the Pakistan Medical and Dental Council, regulates clinics, and larger-scale ethical advice is provided by opinions supported by the Council of Islamic Ideology. ART in marriage is not a problem, and third-party gamete donation and commercial surrogacy are controversial because of lineage (nasab) issues. This poses a thin boundary between reproductive autonomy and religious-ethical boundaries. Lack of specific laws makes the issues of consent, ownership of embryo, inheritance and position of parents open to debate. In the meantime, it has limited access to fertility services because of the low rates of affordability and the absence of awareness among the population.

The only possible way is a systematic law, medical control, and collaboration between medical

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workers, legislators, and theologians. To ensure that reproductive innovation is caring, controlled and culturally based, Pakistan can ensure that ART is not considered just a technical process but instead a human and social problem.

Conclusion

The Assisted Reproductive Technologies (ARTs) in Pakistan are an area of hope and accountability. In most couples who may not want to have a child because of their infertility, these technologies provide an opportunity to have a family in a society that is a very emotional and social one. But other gaps in the law, ethics and regulation exist that are relevant to the development of ART. This is because lack of comprehensive laws and religious sensibilities and economic differences make patients, practitioners and children born in such a way in doubt.

The choices that Pakistan can make in the future are such that it would be a middle-ground that would be respecting reproductive rights while not infringing on the Islamic values and ethics. Through transparency and accessibility of ART services through clear laws, ethical standards and professional responsibility, ART services can be safe. Behind the scenes, the discussion of ART is not only about new technologies and medicine but about dignity, stability in the family and social justice. The adoption of reproductive technology in Pakistan in a human, culturally and legally acceptable manner will be possible due to close management and popular education.

Recommendations

It should possess a well-coordinated and culture-oriented system that ensures that assisted reproductive technologies (ARTs) develop in Pakistan. To start with, the government is supposed to pass a comprehensive law that specifically governs ART procedures, such as IVF, embryo storage, standards of consent, parentage, and dispute resolution. Legal clarity would help mitigate legal gray areas and safeguard the rights of the patient, child and medical practitioner.

There should be increased regulatory control. Even though professional supervision is already provided through the Pakistan Medical and Dental Council and provincial healthcare commissions, special fertility clinic monitoring units are recommended to provide the ethical standards, data security, cost, and success rate disclosures. The cooperation with religious thinkers and associations like the Council of Islamic Ideology is crucial. Application of Islamic jurisprudence in policy making process can also make sure that ART practice is not against societal values, especially when it comes to lineage (nasab) and marital limitations.

The medical issue of infertility should be discussed in the public awareness campaigns as a medical problem and not a social voice able to reduce stigmatization and early intervention. Finally, ART services may be made more available by offering more training opportunities within the area of reproductive medicine and by offering such services (partially) by the state or insurance. Through a concerted legal, moral and medical strategy, Pakistan can develop a human and responsible ART system.

Research Limitations

There are a few significant limitations to research on the Assisted Reproductive Technologies (ARTs) in Pakistan. To begin with, the national infertility rates, treatment outcomes and long-term health outcomes of ART procedures are not well-researched and have no valid data. Most of the information provided is by private fertility clinics, which do not necessarily release standardized or independently valid statistics publicly. This scenario restricts the capability to gauge success, safety, and accessibility among various socioeconomic groups.

It is difficult to comprehend because of the absence of explicit laws. There is no need to have one formal framework of ART, as researchers may presuppose general constitutional principles, professional rules by the Pakistan Medical and Dental Council, and the advisory opinions of the Council of Islamic Ideology. The high rate of technological change in reproductive medicine can be ahead of legal changes, leading to possible discrepancies between the regulation and practice. These limitations indicate the need to

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conduct ongoing research and information collection to provide input to the changes in legislation in the future.

Research Implications

High policy, legal, and social implications have been noted in the use of Assisted Reproductive Technologies (ARTs) in Pakistan. To begin with, evidence-based legislation can be based on empirical research on infertility prevalence, treatment outcomes, and patient experiences. Credible information would help legislators to come up with a holistic regulatory framework that safeguards parental rights, demystifies the issue of lineage, and provides child welfare in its constitutional and Islamic framework.

Professional regulation can be informed by research. The results obtained in the area of Clinical Norms, consent practice and disclosure of costs may be utilized for the improvement of the control system in the jurisdiction of organizations such as Pakistan Medical and Dental Council. Evidence-based suggestions can also be used to help religious and policy organizations, such as the Council of Islamic Ideology, to fine-tune ethical principles in line with the emerging medical realities. The sociological studies on the issue of stigmatization, gender discrimination and access inequalities can be utilized to raise awareness in the population and introduce the balanced changes in the health care system. This will ensure that ART research is not limited to academia but will eventually be the basis of developing reproductive policies in Pakistan that are humane, culturally appropriate and legally acceptable.

Future Research Directions

Future studies of Assisted Reproductive Technologies (ARTs) in Pakistan must shift out of the descriptive analysis to an interdisciplinary and policy-based study. Firstly, large-scale empirical research needs to be done to determine the incidence of infertility among the countries, the success rate of the IVF treatment and the long-term health effects of the treatment on the mothers and their children. Standardizing and making the data reliable would help to ensure transparency and help guide the law change.

Second, without specific ART laws, the law research is to be conducted to examine the implications of parentage, inheritance and custody. Comparative studies of Muslim-majority jurisdictions which regulate ART in Islamic settings could provide a viable example for Pakistan. This type of study may also aid institutions like Council of Islamic Ideology to further develop ethical rulings that are compatible with contemporary medical practices.

The social stigma on women, psychological effects and inequalities in fertility treatment access between different rural and urban areas should be investigated in health and social science research. Such engagement with regulatory bodies such as Pakistan Medical and Dental Council can also help to enhance clinical services. These future directions can be leveraged to develop an Evidence Based ART Framework for Pakistan, which is culturally sensitive.

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