

SOCIAL REPRESENTATIONS OF ASSISTED REPRODUCTIVE MEDICINE AMONG THE POPULATION OF THE REPUBLIC OF MOLDOVA

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Abstract

The article examines the complexity of public perceptions and attitudes toward assisted reproductive technologies (ART) in contemporary society, based on a quantitative sociological study conducted in September 2025 on a sample of 375 respondents. The study provides an empirically grounded perspective on how social representations and levels of knowledge shape the acceptance or rejection of these technologies. The calculation of the Index of Dominant Opinion (IDO) for different categories of respondents represents a valuable sociological tool for quantifying the degree of acceptance or resistance toward ART. This index provides a precise measure of the dominance of positive opinions over negative and neutral ones, thereby reflecting the extent of social consensus regarding the topic. Overall, the study reveals a relatively high level of acceptance of assisted reproductive technologies, though perceptions and levels of knowledge vary across sociodemographic, cultural, and experiential factors. These findings underscore the need for well-designed policies and educational campaigns aimed at informing the public and addressing ethical and social concerns, with the ultimate goal of facilitating equitable and responsible access to assisted reproductive technologies.

Keywords: infertility, medically assisted reproduction technologies, in vitro fertilization.

JEL Code: J11, J13

Introduction

In the current context of the Republic of Moldova, the trend of postponing conception and increasing the age at first birth is becoming increasingly pronounced. A growing proportion of individuals choose to become parents later in life, prioritizing professional and financial stability before starting a family. However, this delay in conception reduces the likelihood of natural fertility, potentially leading to a higher number of women and men facing infertility issues. Similar to other European countries, most couples in the Republic

of Moldova are not fully aware that postponing pregnancy has a detrimental effect on future fertility (Margan, 2022).

The development of assisted reproductive technologies has opened new possibilities for couples and individuals facing infertility. However, the probability of achieving a live birth declines significantly with advancing age. Overall, assisted reproductive medicine has a limited capacity to compensate for the effects of delayed childbearing at older ages (Suero et al., 2025). At the same time, the number of couples seeking medical assistance for infertility is likely lower than the actual number of those affected by this condition. This gap may largely stem from insufficient knowledge regarding success rates and the real chances of achieving parenthood (Adashi et al., 2000).

Alongside this, the increasing use of assisted reproductive medicine has generated a wide range of ethical, moral, legal, and cultural dilemmas. In this context, examining public perceptions and attitudes toward assisted reproductive medicine becomes particularly important, as the acceptance or rejection of these technologies is influenced not only by medical and financial factors but also by social representations, cultural values, religious norms, and individuals' access to information.

Analyzing these perceptions provides critical insights into the mechanisms through which assisted reproductive technologies are either integrated into or resisted within society, highlighting the degree to which communities are prepared to adapt to the transformations these practices entail. Therefore, the sociological examination of perceptions and attitudes toward assisted reproductive medicine is essential for understanding the complex interplay between technological innovation, value systems, and the changing patterns of reproductive behavior in contemporary societies.

This article presents the results of the sociological study *“Perceptions of the Population Regarding Assisted Reproductive Medical Technologies.”* The study was carried out within the framework of the project *“Assisted Reproductive Medicine: Potential in Increasing Birth Rates”* under the “Stimulating Excellence in Research” program, implemented by the National Agency for Research and Development of the Republic of Moldova.

The study employed an exploratory methodological design aimed at investigating public opinions and attitudes toward assisted reproductive medical technologies. A cross-sectional research approach was applied, and data were collected through a self-administered online questionnaire to reach a wider audience and ensure respondents' comfort when sharing their views on a sensitive topic.

The target population consisted of individuals aged 20 to 50 years. Data collection took place in September 2025. The final sample included 375 respondents who voluntarily agreed to participate in the study. Because of the sensitivity of the topic, a considerable number of refusals and survey dropouts occurred, which may have affected the representativeness of the sample. The results may be shaped by differences in participants' levels of knowledge and engagement with the topic. Individuals with higher education showed a higher rate of participation, reflecting both greater access to information and a higher willingness to engage in discussions related to reproductive technologies. In contrast, younger respondents expressed lower levels of interest, perceiving the topic as less relevant to their current stage of life. Moreover, male participation was lower compared to female participation. These patterns suggest a potential underrepresentation of specific social groups that are less inclined to participate, an aspect that should be carefully considered when interpreting the findings.

In the article, the **Index of Dominant Opinion (IOPD)** was calculated for different categories of respondents. This index reflects the share of dominant opinions regarding a specific phenomenon or process and is computed according to the formula:

$$\text{IOPD} = \frac{(p-n) \times (100-ne)}{100},$$
 where p represents the proportion of positive opinions, n the proportion of negative opinions, and ne the proportion of neutral opinions. A value closer to **100** indicates more positive prevailing opinions, perceptions, or attitudes.

1 Main results of the study

Public perceptions and social acceptance of assisted reproductive technologies are influenced by cultural and religious value systems as well as by prevailing societal understandings of reproduction and medical intervention. From a religious standpoint, infertility is often perceived as something that should be accepted as 'God's will,' a position supported by 28.3% of respondents, reflecting the influence of religious or cultural beliefs. This group tends to interpret infertility as part of divine will rather than a medical condition, indicating a strong attachment to traditional and religious value systems. Conversely, 36.8% of respondents disagreed with this statement, pointing to a stronger orientation toward modern values, including trust in scientific approaches and assisted reproductive technologies. This group is more likely to perceive infertility not as a predetermined condition but as one that can be addressed or overcome through medical interventions. A significant proportion of respondents (24.5%) expressed a neutral or undecided position, which may reflect

a population segment situated between traditional and modern value systems or lacking a well-formed opinion due to limited exposure to infertility-related issues or insufficient information. Additionally, 10.4% of respondents selected the option “It is difficult for me to answer,” suggesting uncertainty or reluctance to articulate a clear position on this sensitive topic.

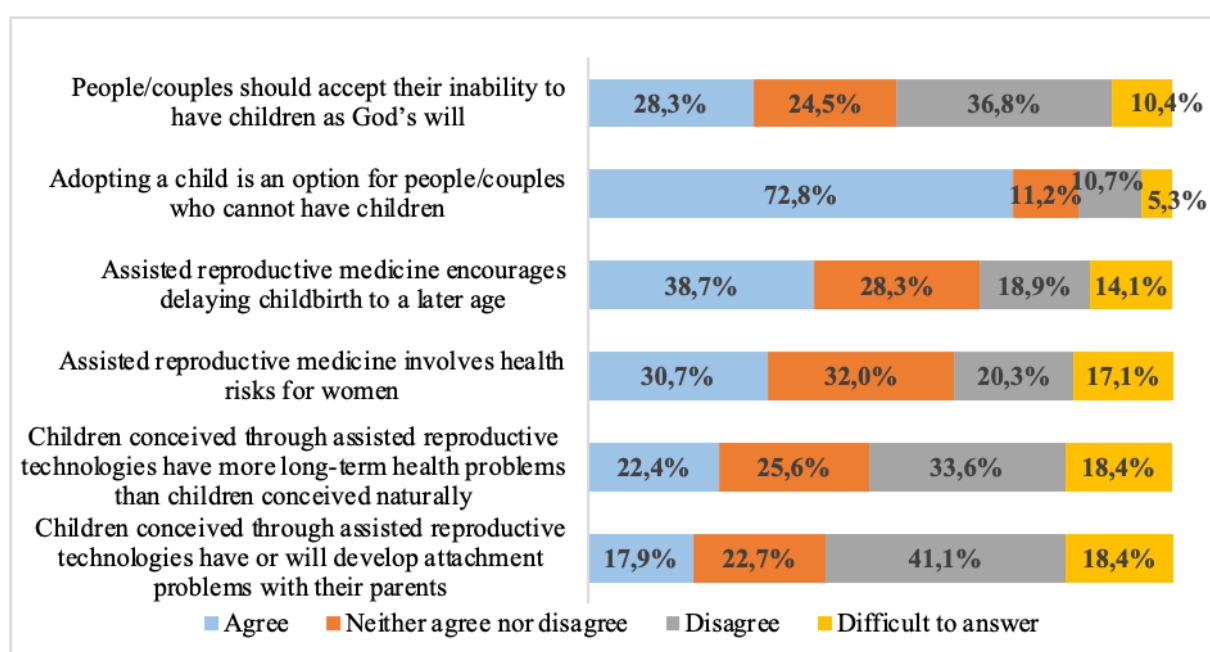
A positive attitude toward the statement that “adoption is an option for individuals or couples who cannot have children” was expressed by 72.8% of respondents, who indicated agreement or strong agreement. This reflects a high level of societal acceptance of adoption as a legitimate alternative to biological parenthood and highlights the role of cultural values that emphasize family and social responsibility. A neutral position was reported by 11.2% of respondents, which may indicate ambivalence or insufficiently developed attitudes toward this issue. In contrast, 10.6% of respondents expressed disagreement or strong disagreement, suggesting the existence of a relatively small group that does not view adoption as an appropriate response to infertility.

With respect to perceptions regarding the effects of assisted reproductive technologies (ART) on demographic behavior, 38.7% of respondents agreed with the statement that “assisted reproductive medicine encourages the postponement of childbearing to a later age.” This finding indicates that a considerable proportion of the population perceives the availability of such technologies as a factor that may facilitate or legitimize delayed parenthood. A neutral position was reported by 28.3% of respondents, which may reflect uncertainty or the absence of a well-defined opinion on the issue. In contrast, 18.9% of respondents expressed disagreement with the statement, suggesting that they do not associate assisted reproductive medicine with delayed fertility behavior. Additionally, 14.1% of respondents selected “It is difficult for me to answer,” indicating uncertainty or limited knowledge regarding the potential demographic implications of ART. The perception of assisted reproductive technologies as a factor contributing to delayed childbearing appears to be closely linked to dominant social norms and values related to career advancement, financial independence, and individual responsibility. In this context, such technologies are often perceived as a solution that enables the postponement of parenthood. This perception may shape attitudes toward the optimal age for childbearing and influence awareness of biological and medical risks, potentially lowering their perceived importance. Over time, this could contribute to shifts in the age dynamics of parenthood and, consequently, to changes in the population age structure, with implications for long-term social, economic, and family planning. The fact that more than one third of respondents perceive assisted reproductive technologies in this way reflects an evolving

social attitude, positioning these technologies not only as medical interventions but also as mechanisms that legitimize delayed reproduction. This trend may entail both opportunities, by supporting individual autonomy and informed decision-making, and risks, such as overestimating technological potential and underestimating biological constraints.

With regard to perceptions of medical risks, 30.7% of respondents agreed with the statement that “assisted reproductive medicine involves risks for women’s health.” This finding indicates that a notable segment of the population is aware of, or at least receptive to, public discussions on the potential medical consequences of these procedures. A slightly larger share (32%) expressed a neutral position, which may reflect uncertainty, limited knowledge, or ambivalence in forming a clear opinion. This group may also reflect broader societal ambiguity surrounding medical risks, where scientific, ethical, and personal considerations intersect. By contrast, 20.2% of respondents disagreed with the statement, suggesting a lower level of concern or a higher degree of trust in the safety of assisted reproductive technologies. Additionally, 17.1% of respondents did not provide an answer, which may indicate hesitation to engage with a sensitive issue, limited confidence in their knowledge, or discomfort in articulating a position on a topic that is often publicly debated and shaped by cultural and moral values.

Fig. 1: Public perceptions and attitudes toward infertility and assisted reproductive medical technologies



Source: Sociological Study “Perceptions of the Population Regarding Assisted Reproductive Medical Technologies”

When examining perceptions related to children conceived through assisted reproductive technologies, the analysis of responses to the statement “Children conceived through assisted reproductive technologies (ART) have more long-term health problems than children conceived naturally” reveals a diversity of views. A total of 22.4% of respondents agreed or strongly agreed with the statement, indicating the persistence of concerns about potential long-term health implications associated with ART. A further 25.6% expressed a neutral position, which may reflect uncertainty, limited knowledge, or ambivalent attitudes toward the health outcomes of ART-conceived children. In contrast, 33.6% of respondents disagreed with the statement, suggesting that a considerable share of the population does not perceive significant health differences between children conceived through ART and those conceived naturally. Additionally, 18.4% of respondents remained undecided, a finding that may point to the sensitivity of the topic and the absence of consolidated public perceptions in this area.

Perceptions concerning the emotional and psychological development of children conceived through assisted reproductive technologies constitute an important dimension of public attitudes toward these technologies. Only 17.8% of respondents agreed with the statement that “Children conceived through assisted reproductive technologies have or will develop attachment problems with their parents.” A further 22.7% expressed a neutral position (“neither agree nor disagree”), suggesting that a considerable share of the population lacks a clear opinion or sufficient information to assess this issue. Additionally, 18.4% of respondents reported difficulty in providing an answer. In contrast, the majority of respondents (41%) disagreed with the statement, indicating that they do not perceive conception through ART as inherently associated with attachment problems. This prevailing perception may be shaped by personal experiences, observations within the social environment, or broader social narratives that contribute to normalizing the use of assisted reproductive technologies (*Figure 1*).

Using the Index of Dominant Opinion (IDO) as an analytical tool provides valuable insights into how cultural and social values shape public attitudes toward infertility. This indicator is particularly relevant when examined across sociodemographic variables, as attitudes toward infertility and its causes can vary significantly by gender, age, and parental status. Such an approach allows for a more nuanced understanding of how different population groups position themselves on sensitive issues related to reproduction.

The IDO results show that the general attitude toward the statement that infertility should be accepted as “God’s will” is negative, indicating broad disagreement with this view.

This trend may reflect a wider cultural shift in which the influence of religion on personal matters such as reproduction is gradually diminishing. Broader access to information and increased availability of assisted reproductive technologies contribute to raising awareness of reproductive options, which may further reinforce rejection of the notion of “divine will.” Both women and men express disagreement with the statement, though the intensity of disagreement is more pronounced among women. This stronger opposition may be linked to gendered perspectives on reproduction and social roles, women often experience more directly the constraints and frustrations associated with infertility, which may explain their stronger rejection of attributing this phenomenon to divine will. Disagreement is also more evident among respondents aged 40–50 and among those without children. Individuals in this age group may hold more critical views as a result of their life experience, exposure to cases of assisted reproduction, and the opportunity to form more informed personal opinions based on their own or others’ experiences.

The opinion that adoption represents a viable option for individuals or couples who are unable to have biological children is overwhelmingly positive, particularly among women and respondents aged 30–39. This positive perception reflects a moral openness to the idea that parental love and responsibility can be expressed through adoption, even in the absence of a biological connection. Respondents with children are more likely to support adoption compared to those without children, indicating that personal experience with parenthood may shape attitudes toward alternative family-building pathways.

With regard to the statement that assisted reproductive medicine encourages the postponement of childbearing to a later age, the overall opinion is positive, with higher levels of agreement expressed by women and respondents aged 20 to 39. Women appear to be more aware of the impact and perceived advantages of assisted reproductive technologies, which may explain their stronger agreement. This positive perception suggests that society increasingly views such technologies as a viable solution that enables couples to delay parenthood without compromising their chances of becoming parents later in life. Trust in these technologies may also influence traditional perceptions of the optimal age for childbearing, promoting the idea that reproduction can be planned and postponed when necessary. Over time, this shift may contribute to changes in cultural values related to career and family, encouraging more flexible life-course trajectories.

The Index of Dominant Opinion regarding the statement that assisted reproductive medicine involves health risks for women indicates a moderately positive perception. This suggests that, while the general public acknowledges the benefits of assisted reproductive

technologies, a certain degree of skepticism and awareness of potential health risks persists. Gender differences are particularly notable. Women report a lower level of risk perception (+4.45) compared to the overall average, whereas men display a higher level of perceived risk (+15.8). This gap may reflect differences in how men and women interpret and process health-related information. Men's stronger perception of risk may stem from more limited access to or engagement with detailed medical information, or from a more cautious and risk-averse stance toward medical interventions. Differences by age group are also evident. Respondents aged 20–29 report lower risk perception, which may indicate greater confidence in medical technology and trust in the safety of modern reproductive procedures, or simply less personal experience with health-related risks. Risk perception increases steadily with age, suggesting a growing awareness and more critical evaluation of potential medical risks among older respondents.

The perception that children conceived through assisted reproductive technologies have more long-term health problems than those conceived naturally has a negative IDO value. This indicates a prevailing view that ART-conceived children are not perceived as facing greater long-term health risks compared to naturally conceived children and reflects a general attitude of trust in the safety and effectiveness of modern reproductive technologies. There is a clear difference between men and women in how this issue is perceived. Women express a stronger negative perception (-14.5), which suggests greater confidence that assisted reproductive technologies do not lead to additional long-term health problems. Differences by age group are also significant. Respondents aged 20–29 express an almost neutral view (-0.6), which may point to limited awareness or insufficient information. Among those aged 30–39, perceptions are more distinctly negative (-17.1), likely reflecting increased awareness through personal experience or more in-depth knowledge. In the 40–50 age group, the perception remains negative (-9.8) but is more moderate, possibly reflecting a more balanced understanding of potential health risks based on accumulated life experience.

The IDO value associated with the statement that children conceived through assisted reproductive technologies have or will develop attachment problems with their parents is strongly negative. This finding indicates a prevailing belief in the emotional and social stability of children conceived through assisted reproductive technologies, reflecting high levels of public trust in these methods beyond their medical outcomes. Clear differences emerge between women and men. Women exhibit a strongly negative perception (-24.4), suggesting a firm conviction that children conceived through ART are not at greater risk of attachment problems. This perspective may be shaped by their direct involvement in childrearing

and a deeper understanding of the emotional dynamics of parent-child relationships. In contrast, men display a slightly positive perception (+3.5), which may signal a more cautious or skeptical stance regarding the emotional well-being of children conceived through medical reproductive interventions. Age differences further refine this pattern. Respondents aged 20–29 show a moderately negative perception (-10.1), possibly reflecting limited personal experience or insufficient exposure to information on the subject. Respondents aged 30–39 and 40–50 display more strongly negative perceptions (-27.5 and -16.1, respectively), suggesting increased awareness and reduced concerns regarding the emotional development of children conceived through ART. Parental status also appears to play a significant role. Respondents with children express greater confidence in the safety and positive outcomes of assisted reproductive technologies, showing fewer concerns about potential attachment or health issues. By contrast, individuals without children adopt a more reserved stance, indicating less certainty about the emotional and developmental implications of these technologies (*Table 1*).

Tab. 1: Index of Dominant Opinion regarding public perceptions and attitudes toward infertility and assisted reproductive treatments

	Total	Female	Male	20-29 years	30-39 years	40-50 years	With children	Without children
1. People/couples should accept their inability to have children as God's will	-8,09	-7,8	-1	-5,8	-3,5	-9,3	-5,5	-8,7
2. Adopting a child is an option for people/couples who cannot have children	+55,1	+63,1	+29,7	+44,6	+57,3	+61,05	+60,8	+40,4
3. Assisted reproductive medicine encourages delaying childbirth to a later age	+14,1	+14,9	+11,7	+16,2	+16,05	+11,03	+13,7	+14,8
4. Assisted reproductive medicine involves health risks for women	+7,07	+4,45	+15,8	+1,6	+9,3	+9,6	+7,2	+6,4
5. Children conceived through assisted reproductive technologies have more long-term health problems than children conceived naturally	-8,3	-14,5	+13,43	-0,6	-17,1	-6,3	-9,8	-4,7
6. Children conceived through assisted reproductive technologies have or will develop attachment problems with their parents	-17,9	-24,4	+3,5	-10,1	-27,5	-16,1	-20,3	-12,2

Source: Sociological Study "Perceptions of the Population Regarding Assisted Reproductive Medical Technologies"

Discussions and conclusions

Several international studies examining public perceptions of assisted reproductive medicine have shown that supportive attitudes toward these technologies are predominant, with no significant differences identified across sociodemographic groups such as gender, education level, or age. This suggests that social norms and personal values play a more influential role in shaping attitudes toward assisted reproductive medicine than sociodemographic characteristics. Only two factors were found to significantly influence more reserved attitudes: religiosity and prior experience with assisted reproductive technologies. Participants who identified as more religious were less likely to express support for assisted reproductive medicine. Conversely, individuals who had previously undergone assisted reproductive treatments were among its strongest supporters. Furthermore, respondents who personally knew someone with experience in assisted reproduction were more likely to support these treatments compared to those without such exposure (Szalma & Bito, 2021).

The results of this study show that in the Republic of Moldova, fewer than 40% of respondents believe that assisted reproductive medicine encourages the postponement of childbearing to a later age. By contrast, findings from international research indicate that more than half of respondents perceive the availability of IVF treatment as a factor that encourages delayed conception (Fauser et al., 2019). This difference may be explained by several cultural, social, and economic factors. First, in Moldova, attitudes toward fertility and reproduction are still likely influenced by more traditional and conservative norms, in which early childbearing and the family hold strong cultural value. Second, the level of knowledge and awareness regarding assisted reproductive technologies and their potential impact on family planning may be lower, which could reduce the perception of IVF as a factor influencing the timing of conception. In addition, economic and accessibility factors may play a key role. If IVF is not perceived as easily accessible or well supported within the public health system, individuals may be less likely to associate the availability of this technology with postponing childbearing.

Other international studies have identified substantial inconsistencies in the overall level of public knowledge, even among relatively well-educated populations. In the context of increasing demand for fertility services and limited financial resources, strengthening public education is essential to ensure that individuals are fully informed and adequately prepared for their reproductive planning (Nancarrow et al., 2024). Such educational initiatives should be accessible, culturally and socially contextualized, and aim not only to provide information

but also to influence perceptions, attitudes, and prevailing social norms regarding the use of assisted reproductive technologies. This broader approach can help create a more informed and supportive environment for individuals and couples considering or undergoing fertility treatment.

Overall, the findings of this study underscore the need for well-designed educational interventions in the Republic of Moldova to address persistent information gaps and to promote a more realistic, responsible, and balanced understanding of assisted reproductive medicine. Strengthening public awareness through targeted information campaigns is essential to ensure that individuals have a clear understanding not only of the benefits but also of the limitations and potential risks associated with these technologies. By improving the overall level of knowledge, such initiatives can contribute to shaping more informed and favorable attitudes toward assisted reproductive medicine, supporting evidence-based reproductive decision-making in the context of current demographic and socio-economic challenges.

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