



Making Informed Decisions on Reproductive Practices Based on Education AI Tool of Animation

Anjali Thapa,

Department of Fine Arts, Graphic Era Hill University,
Dehradun, Uttarakhand, India 248002

Abstract

Prenatal testing for foetal chromosomal abnormalities is an option that women and their partners must weigh carefully early in pregnancy. Studies demonstrate that most pregnant women do not have enough information to make educated choices about prenatal testing. Autonomous reproductive choice is becoming more complicated as the number of available prenatal tests grows as a result of innovations like non-invasive prenatal testing (NIPT). In this randomised controlled experiment, we looked at how a web-based audiovisual decision aid affected pregnant women's choices about prenatal testing.

Keywords: Fetal Chromosomal Abnormalities, reproductive, decision making, prenatal testing, healthcare professionals, pregnant

DOI Number: [10.48047/nq.2019.17.06.2438](https://doi.org/10.48047/nq.2019.17.06.2438)

NeuroQuantology 2019;17(06):146-151

Introduction

Prenatal testing for foetal chromosomal abnormalities is performed not so much to avoid the birth of children with chromosome abnormalities as to empower pregnant women & their partners to make informed reproductive choices. The decision to accept or deny pregnancy testing should be made after considering all relevant factors to promote reproductive autonomy. When a woman's involvement or nonparticipation in prenatal testing is in line with her values and beliefs about the procedure, it is considered an educated choice.

Accurate, complete, and objective education about the possibilities must be provided by healthcare experts. Therefore, it is important to educate the pregnant lady to consider the consequences of prenatal testing in light of her own values and beliefs. According to the vast majority of global assessments, most pregnant women do not make educated

judgements about prenatal testing. The number of accessible prenatal tests is growing as new methods for screening and diagnosing foetal chromosomal abnormalities are developed and introduced. These methods include microarray analysis or non-invasive pregnancy testing (NIPT) utilising cell-free foetal DNA in maternal plasma. As a result, it will be much more difficult to make a well-informed choice about prenatal testing. Achieving gender parity and giving women a voice in matters of sexuality and reproduction is impossible if they are denied full autonomy in these areas.

When compared to other fields, progress in maternal health has been excruciatingly sluggish. However, recent estimates from the United Nations reflect a general trend of substantial, though inadequate, success in lowering maternal mortality. It's obvious that well-known techniques, if more extensively used, might save many lives. Access to safe



abortion offerings, when not illegal, and the prevention and treatment of unsafe abortions are among these lifesaving interventions. Other examples include prenatal, aided delivery, and emergency obstetric care for mothers and newborns.

Adolescent rights, maternal health, and family planning are just few of the areas where international human rights legislation is beginning to acknowledge the importance of sexual and reproductive health. In addition, while implementation has lagged, improvements in international, regional, and national policies, regulations, and development techniques have contributed to promote the realisation of sexual and reproduction rights as well as human health. Women's rights groups, community and faith-based organisations, and other members of civil society have played crucial roles in these transformations. Access to reproductive and sexual health services and the ability to freely exercise reproductive rights have both improved to varying degrees during the last 20 years.

In 2004, the illness burden for women of reproductive years was about one-third due to death and disability associated with sexual and reproductive health. Pregnancy, childbirth, and postpartum care saves lives and reduces impairments for both mothers and their newborns. Reducing the risk of abortion and maternal mortality may be accomplished via the protection of women against unintended pregnancies.

Challenges in reaching adolescents

While there was a fall in the teen birthrate between 1990 and 2000, that decline has stalled and inequalities have widened. There has been an increase in the median age at which individuals get married, which has contributed to declining fertility rates and rising levels of health and education. However, many girls in third world nations continue to enter into marriage at very tender ages. There has been a rise in the availability of sexuality education, and research shows that these programmes have a positive effect

on young people's sex initiation, sex frequency, number of sexual partners, condom use, and attitudes about gender and sexuality.

Effective STI prevention and care can be achieved through a combination of responses, including the promotion of safer sex, encouragement of the use of health services for diagnosis and treatment, primary healthcare prevention and care, and a case management approach, as demonstrated by the experience of several countries. Reduced rates of STIs among males have received increased focus from researchers and programmers as a possible strategy for reversing the HIV pandemic and other illnesses.

While these successes are cause for optimism, they will need a redoubled effort to maintain and grow. by governments, donors, and the public sector, with support from sufficient and reliable financing. In order to attain reproductive and sexual health for everyone, hazardous practises, violence against women, and prejudice in accessing healthcare and exercising associated rights should be outlawed and punished by law.

Integrating sexual and reproductive health care into development planning and increasing government commitment in this area. Governments at all levels need to commit seriously to addressing sexual and reproductive health via adequately supporting related programmes and integrating these issues into broader efforts to reduce poverty. To guarantee cooperation across different departments and agencies, policymakers must create and execute a set of rules, laws, and guidelines. Reaching and serving low-income and marginalised communities is a priority for policymakers and other stakeholders if we are to make the most of limited resources and achieve progress towards social justice. Understanding who is most at risk and how to eradicate fundamental causes in different national and local settings requires investigation and collaboration. Policymakers should establish social protection levels while

while pursuing long-term goals like universal health care. Community-based insurance and savings programmes are two examples of risk-pooling solutions that may aid in protecting low-income households. The responsiveness and sustainability of policies and programmes may be improved by including those who will be affected by them in their creation and evaluation.

Family planning; maternity and newborn care; safe abortion (where not illegal) and post-abortion care; STI/HIV treatments; and so forth would all be part of a basic package of sexual and reproductive health care. The issue of harmful practises and violence against women will also be addressed. Alternative methods of providing care, such as mobile units and services in the workplace, should be established in areas with a scarcity of or difficulty gaining access to such options. It is crucial to provide health professionals, particularly midwives, with adequate training and pay. Sexual and reproductive health education has to be a part of medical and public health curriculum.

Responding to Real Time needs and Realities

Youth-specific healthcare is a pressing issue in the health industry. While the details of the strategy and the services provided may change depending on the circumstances, it will always be important to reach out to young people, make them feel welcome, and protect their privacy. Providing young people with knowledge and chances to develop self-confidence and problem-solving abilities is just as important as providing them with access to resources. Reviews of sexuality instruction programmes have shown that the most successful treatments target both sexual taboos and gender norms. diverse approaches to sexuality education should be designed for diverse demographics of young people, including those who are out of the classroom or otherwise hard to reach. Health and sexuality education campaigns, meanwhile, should be open to and welcoming to males, not as an extra but as a primary focus. Men need access to resources for their own sexual and reproductive health concerns (such as

learning about and using male-friendly forms of family planning and STI prevention) and for bolstering women's health and emancipation.

The ICPD recognised definition of reproductive wellness broadened prior definitions by include the empowerment of women and fundamental rights and by making linkages to other aspects of health and development. This shift has resulted in a significantly broader concept of reproductive wellness, which now encompasses not only contraception but also medical care for mothers and infants born; the detection, treatment, and prevention of STIs like HIV; adolescent sexually and reproductive wellness; cancer vetting; and infertility counselling. Furthermore, there is a connection between issues such as ending assault on women or girls, destructive practises, intimidation or abuse, and gender inequality. When abortion is legal, all governments believe it should be safe, and all women should have access to post-abortion care. Finally, it's crucial to have access to in-depth sexuality education. Good sexual and reproductive health requires the following five factors, as described by the World Health Organisation (WHO) in 2004:

- Providing access to safe and effective forms of birth control and infertility treatment
- Boosting the Health of Mothers and Babies
- Bringing down the incidence of STIs and other reproductive health problems
- Reducing the occurrence of abortion and caring for women after they have had one
- Advancing sexual health for all ages and discouraging hazardous behaviours.

Reproductive Rights are Human Rights

The rights of people that are already recognised by national laws, global human rights agreements, and other relevant United Nations consensus texts are included in the concept of reproductive rights, which was defined and confirmed in the ICPD Programme of Action. According to Article 12 of the 1979 CEDAW Convention, which addresses the abolition of discrimination against women,

- To guarantee that men and women have equal access to medical services, including those that deal with family planning, all State Parties must take all necessary steps to end prejudice against women in healthcare.
- States Parties must ensure that pregnant and breastfeeding women have access to adequate nutrition and appropriate services during being pregnant, incarceration, and the postnatal period, including, where necessary, provision of such services free of charge. Governments are obligated to ensure that all people have equal opportunity for medical care, commodities, or facilities in order to meet the requirements of Article 12 of the International Covenant on Social, Cultural, and Economic Rights. Access to suitable for your age data, reproductive and contraceptive schooling, and services pertaining to sexual and reproductive health is a human right for people with disabilities, as stated in Articles 23 and 25 of the Tradition on the Rights about Persons with Disabilities.

The Beijing Fourth World Conference on Women in 1995, the International Conference on Development and Population in Cairo in 1994, and the United Nations Conference on Women in New York in 1993. These historic moments led to the adoption of consensus agreements by governments throughout the globe that acknowledged the interconnected nature of issues including growing populations, sexual and reproductive health, equality between men and women, consumption and manufacturing patterns, sustainable development, and human rights. These treaties emphasised the importance of women's rights and well-being in attaining social and economic development, further demonstrating the connection between sexual and reproductive health and reproductive rights.

Governments have committed to provide funding for healthcare practitioner education

and equipment in states where abortion is allowed. Human rights organisations are increasingly emphasising the need of protecting people's rights to sexual and reproductive health. The International Planned Parenthood Federation, the largest non-governmental reproductive health organisation in the world, issued a Declaration in Sexual Rights in 2008 for its members and to stimulate wider discussion about the definitions and relationships between sexual health, reproductive wellness, and human rights.

During this time, there was also a growing agreement that everyone should have access to a high-quality healthcare system that treats them with dignity and respect. By removing financial, institutional, and cultural obstacles, we can provide reproductive health services to everyone who needs them. A combination of government funding, law, and regulatory systems is often used to guarantee both widespread availability and high-quality provision of services. Reaching and serving the very poor and other disadvantaged and marginalised populations is essential if health care for all is to be achieved.

Universal access to reproductive health services requires investment in healthcare infrastructure, trained personnel, a steady supply of relevant commodities, and community-based and individual-level initiatives. Reproductive as well as sexual health services encompass a wide range of topics, including but not limited to: birth control, prenatal care, pregnancy and postnatal care, safe abortion, if not unlawful, care following an abortion, and the detection, treatment, and prevention of STIs, including HIV. Complete sexuality education and human rights protection via community-based interventions that encourage local engagement from programme conception all the way through implementation and assessment are key to an integrated strategy.

The Millennium Development Goals are Mutually Reinforcing



The 7 Millennium Development Goals aiming to eradicate are:

- a) Get rid of starvation and severe poverty
- b) Acquire Primary Education for All
- c) Advocate for women's empowerment and gender parity.
- d) Try to lower the infant mortality rate
- e) Strengthen maternal health
- f) To fight off infections like HIV/AIDS and malaria

Maintain a healthy ecosystem Create an international alliance for progress, number eight. There is a clear correlation between targets 3, 4, 5, and 6 of the MDGs and the population & reproductive and sexual health strategy envisioned at the 1994 ICPD.

In the Netherlands, all expectant mothers have access to prenatal screening for chromosomal abnormalities. Information about FCT is provided by a standardised brochure released by the National Institute of Health and the Environment, and also by an accredited Obstetrics as well as medical professional who complies with national standards for quality control. The brochure and consultation include prenatal screening with FCT, the findings of which provide an estimate of the gestation-specific risk, as well as the various tests to be performed should prenatal screening reveal a significant likelihood for foetal chromosomal variations. We also talk about the (age-related) chances of having a child with chromosomal abnormalities. Expectant parents are also urged to exercise their own reproductive autonomy and make decisions about whether or not to undergo prenatal testing.

Conclusion

This study shows that pregnant women who use an online audiovisual choice aid in conjunction with conventional prenatal care are more likely to make informed choices about deciding whether or not to undergo prenatal examinations for foetal chromosomal defects. Therefore, the findings demonstrate that implementing such an aid would directly help in accomplishing the

ultimate goal of the national strategy for prenatal examinations and diagnosis.

References

Health Council of the Netherlands. Prenatal screening: Down syndrome, neural tube defects, routine ultrasonography. The Hague: Health Council of the Netherlands, 2001; publication no. 2001/11.

De Jong A, Dondorp WJ, Frints SGM, De Die-Smulders CEM, De Wert GMWR: Advances in prenatal screening: the ethical dimension. *Nat Rev Genet* 2011; 12: 657–663.

Marteau TM, Dormandy E, Michie S: A measure of informed choice. *Health Expect* 2001; 4: 99–108.

Michie A, Dormandy E, Marteau TM: The multi-dimensional measure of informed choice: a validation study. *Patient Educ Couns* 2002; 48: 87–91.

Green JM, Hewison J, Bekker HL, Bryant LD, Cuckle HS: Psychosocial aspects of genetic screening of pregnant women and newborns: a systematic review. *Health Technol Assess* 2004; 8: 1–128.

Ames AG, Metcalfe SA, Archibald AD, Duncan RE, Emery J: Measuring informed choice in population-based reproductive genetic screening: a systematic review. *Eur J Human Genet* 2015; 23: 8–21.

Stacey D, Légare F, Col NF et al: Decision aids for people facing health treatment or screening decisions. *Cochrane Database Syst Rev* 2014, issue 1.

Elwyn G, O'Connor AM, Stacey D et al: Developing a quality criteria framework for patient decision aids: online international Delphi consensus process. *BMJ* 2006; 333: 417.

Elwyn G, O'Connor AM, Bennett C et al: Assessing the quality of decision support technologies using the international patient decision aid standards instrument (IPDASi). *PLoS One* 2009; 4: e4705.



Schoonen HM, van Agt HM, Essink-Bot ML, Wildschut HI, Steegers EA, de Koning HJ: Informed decision-making in prenatal screening for Down's syndrome: what knowledge is relevant? *Patient Educ Couns* 2011; 84: 265–270.

Schoonen M, Wildschut H, Essink-Bot ML, Peters I, Steegers E, de Koning H: The provision of information and informed decision-making on prenatal screening for Down syndrome: a questionnaire-based and register-based survey in a non-selected population. *Patient Educ Couns* 2012; 87: 351–359.

van den Berg M, Timmermans DRM, Ten Kate LP, van Vugt JMG, van der Wal G: Are pregnant women making informed choices about prenatal screening? *Genet Med* 2005; 7: 332–338.

Fransen MP, Essink-Bot ML, Vogel I, Mackenbach JP, Steegers EA, Wildschut HI: Ethnic differences in informed decision-making about prenatal screening for Down's syndrome. *J Epidemiol Community Health* 2010; 64: 262–268.

O'Connor AM: Validation of a decisional conflict scale. *Med Decis Making* 1995; 15: 25–30.

Koedoot N, Molenaar S, Oosterveld P et al: The decisional conflict scale: further validation in two samples of Dutch oncology patients. *Patient Educ Couns* 2001; 45: 187–193.

Brehaut JC, O'Connor AM, Wood TJ et al: Validation of a decision regret scale. *Med Decis Making* 2003; 23: 281–292.

Lewis C, Hill M, Skirton H, Chitty LS: Development and validation of a measure of informed choice for women undergoing non-invasive prenatal testing for aneuploidy. *Eur J Hum Genet* 2016; 24: 809–816.

Beulen L, Grutters JP, Faas BH et al: Women's and healthcare professionals' preferences for

prenatal testing: a discrete choice experiment. *Prenat Diagn* 2015; 35: 549–557

