Social Issues

Current Reproductive
Technologies:
Psychological, Ethical,
Cultural and Political
Considerations

Issue Editors: Linda J. Beckman and S. Marie Harvey

Irene Hanson Frieze, Ph.D., Editor

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e-mail: rhoyle@duke.edu

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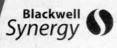
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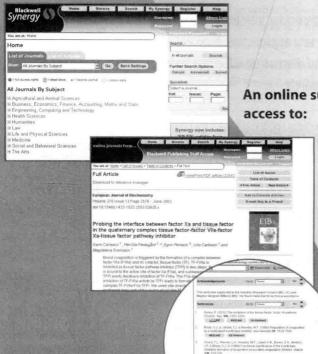
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Current Reproductive Technologies: Psychological, Ethical, Cultural and Political Considerations

Issue Editors: Linda J. Beckman and S. Marie Harvey

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Current Reproductive Technologies: Increased Access and Choice?

Linda J. Beckman*

Alliant International University, Los Angeles

S. Marie Harvey

University of Oregon, Eugene

This article discusses key issues related to current reproductive technologies including contextual and personal barriers to use, complexity of decision making, limited access to technologies for poor women and women of color, and the politics and social controversy surrounding this area. New reproductive technologies have to be put to the same test as any other product—can and will women use them correctly? We need to not only know about the technology itself; we also need to know about the individuals who intend to use the technology and about contextual factors that influence use. Accordingly, the articles in this issue focus on the multiple determinants that influence acceptability of reproductive technologies and the policy, political, and legal implications associated with their use.

In this issue we define reproductive technologies as the drugs, medical and surgical procedures, and devices that facilitate conception, prevent or terminate pregnancy, and prevent the acquisition and transmission of sexually transmitted infections (STIs). It is important to note that these techniques separate sex from

^{*}Correspondence concerning this article should be addressed to Linda J. Beckman, Alliant International University, 1000 South Fremont, Unit 5, Alhambra, CA 91803-1360 [e-mail: lbeckman@ Alliant.edu].

We dedicate this issue to our mentor and friend, Helen Rodriguez-Trias, M.D., who died on December 27, 2001. Helen's dedication to the fundamental right of women to control their own bodies and her passionate commitment to advancing the health and rights of women, especially poor women and women of color, continues to inspire those of us who were blessed to have had her in our lives. She was an important mentor to women of diverse backgrounds and ages: students, new professionals, established scholars, service providers, and policy advocates. We have learned from her wisdom, that she so willingly shared. We honor her memory through actions that promote the reproductive health of women and improve the quality of their lives.

reproduction (Tangri & Kahn, 1993). Therefore, these technologies allow individuals to engage in sexual intercourse for purposes other than procreation and facilitate procreation without engaging in sexual intercourse.

Our approach to this issue is grounded in our belief that for women to gain equality with men, nationally and internationally, requires that they have control over their bodies and are able to choose whether or not and when to have children. Reproductive health is defined by the World Health Organization (1998) as "complete physical, mental, and social well being in all matters related to the reproductive system" (p. 1). One important strategy for increasing reproductive health is to provide needed services and tools to women to help them overcome infertility; carry wanted pregnancies to term; avoid STIs and prevent unintended pregnancies; when desired, terminate a pregnancy; and enjoy physical and psychological health during and beyond the childbearing years. Our distinctive approach leads to a comprehensive analysis of issues involving reproduction with the goal of promoting more integrated reproductive health services for all women.

Over the last 25 years new reproductive technologies have emerged and extant techniques have been improved or rediscovered. Many new procedures that increase individuals' ability to build a family have led to scenarios previously only visualized in novels such as Huxley's (1998) Brave New World. The event that initially galvanized the field of infertility treatment in 1978 was the birth of the first child resulting from in vitro fertilization (IVF), the most popular of the assisted reproductive technologies (ARTs). ARTs are non-coital methods of conception that involve manipulation of both eggs and sperm. The most popular ART is IVF, used in over 70% of all ART procedures (Resolve of Minnesota, n.d.). IVF is a process that uses drugs to stimulate egg production in a woman. The ripened eggs from the ovary are then retrieved, in the laboratory, and fertilized with semen. The resulting embryo or embryos are then transferred back into the uterus for implantation (Centers for Disease Control, 2003; Resolve of Minnesota, n.d.). ARTs are expensive, (averaging \$8,000-10,000 per approximately two-week egg retrieval cycle [Resolve of Minnesota, n.d.] and ranging from \$60,000 to over \$150,000 per successful delivery [Neumann, Gharib, & Weinstein, 1994]). In addition, they are time consuming, involve multiple injections of drugs, and have a modest success rate. Less than 25% of cycles involving fresh, non-donor eggs result in a live birth (American Society for Reproductive Medicine, 2000; Centers for Disease Control, 2003).

Procedures that involve only the use of fertility drugs or intrauterine insemination (IUI), commonly known as artificial insemination (AI), typically are not considered ART. However, for purposes of this issue they are included as reproductive technologies. Both IUI and IVF allow a couple to contract with a third-party woman who carries a child that is genetically linked to one or both members of the couple and who relinquishes that child to the couple after birth. Third party contractual parenting (commonly know as surrogacy) challenges traditional views

of what constitutes a family and the relative importance of social versus genetic ties to a child. As discussed in this issue, use of methods such as surrogacy raises profound ethical and legal issues and varies in acceptability by culture. Moreover, because of high costs and lack of insurance coverage, many individuals have limited access to these methods.

In addition to technologies to overcome infertility problems, a host of technological advances are now available to prevent unintended pregnancies and limit unwanted births (Harvey, Sherman, Bird, & Warren, 2002; Schwartz & Gabelnick, 2002; Severy & Newcomer, this issue). Methods to prevent or terminate unwanted pregnancy include female hormones delivered via injection, implant, or pill; mechanical devices placed in the uterus; devices that alert women about their fertile period; and surgical procedures. Moreover, not all methods must be used prior to or during sexual intercourse. Emergency contraception involves the use of hormones up to three to five days after unprotected intercourse to prevent conception. Voluntary termination of pregnancy may involve simple surgical techniques (e.g., electric vacuum aspiration, manual vacuum aspiration) or drug-induced techniques. Some drugs, such as mifepristone (also known as the abortion pill, Mifeprex, or RU 486), have been tested extensively in other countries; others such as methotrexate were originally developed and used for other purposes. Procedures and methods to prevent conception and terminate pregnancies are not nearly as high-tech as those to overcome infertility. Yet, they raise similar types of problems and issues in terms of their acceptability to various cultural and religious groups and because of their limited accessibility. Such problems may be exacerbated by the use of technology for purposes not originally intended (e.g., the use of female hormones originally designed for contraception to control menopausal symptoms and reduce risk of disease in peri-menopausal and postmenopausal women).

Because of the world-wide AIDS pandemic (UNAIDS, 2003) and the high incidence of many other STIs such as chlamydia and gonorrhea nationally and internationally, women and men need methods to protect against Human Immunodeficiency Virus (HIV)/STIs (Eng & Butler, 1997; Rosenberg & Gollub, 1992; Stone, Timyan, & Thomas, 1999).

The male condom is widely recognized as the most effective method of protecting against HIV and some other STIs for sexually active couples (Stone, Timyan, & Thomas, 1999). Some men may, however, be unwilling to use condoms and if women desire protection, they frequently must negotiate condom use with their male partners.

Because of gender-based power inequities, some women may not be able to negotiate condom use to protect themselves against diseases (Amaro, 1995; Amaro & Raj, 2000; Blanc, 2001). There is, therefore, an urgent need for additional, preferably female controlled, methods for HIV/STI prevention. Of critical significance are devices and products still under development such as microbicides (for examples see Koo, Woodsong, Dalberth, Viswanathan, & Simons-Rudolph,

this issue; Severy & Newcomer, this issue) that would protect women and their partners from HIV and other STIs. Although these devices and products are designed to prevent disease rather than to control fertility or overcome infertility, issues of acceptability are equally critical to their use.

In this issue we consider psychological, ethical, sociocultural, and political issues of selective technologies. Taken together, the technologies—some old, some new, some still on the horizon—provide more options for women and their partners, theoretically making it possible for them to have greater control over their physical health and psychological well-being. The development of better, more sophisticated scientific technologies generally is viewed by couples and medical professionals as a benefit that could potentially improve physical health and wellbeing (Kailasam & Jenkins, 2004; Women's Health Weekly, 2004). That said, these technologies have engendered great controversy even among feminists (Henifin, 1993; Tangri & Kahn, 1993) as has their marketing (Kolata, 2002). Feminists have failed to achieve an integrated discourse about women's reproductive decision making across the various technologies (Cannold, 2002). While they support women's right to limit or terminate pregnancy, radical feminists generally oppose assisted reproductive technology. Feminists see women as independent rational decision makers when confronted with an unwanted pregnancy. In contrast, many of them believe that women may be coerced into procedures such an IVF and surrogacy and, therefore, they cannot make unconstrained, independent decisions about these procedures (Cannold, 2002).

Certain religious and cultural groups view some or most of these technologies as unacceptable, even immoral. For instance, the Catholic Church characterizes abortion and contraception as immoral and urges women to forgo these methods (Russo & Denious, this issue; Wakin, 2003). Each of these reproductive technologies raises significant, social, ethical, and psychological issues for women and their sexual partners (e.g., Pasch & Christensen, 2000). Technologies at both ends of the fertility spectrum may be difficult to use and involve significant emotional, social, and/or economic costs (e.g., Pasch & Christensen).

The purpose of this issue is to provide a selective overview of major psychological, ethical, sociocultural, and political issues as they relate to reproductive technologies; to consider the policy implications of these issues; and to promote new research through synthesis and integration of extant literature, the presentation of new data, and identification of new research directions. Prior theoretical development in this area is sparse. Although it is difficult to impose a strong theoretical framework that encompasses the diverse perspectives of these articles, we offer a general conceptual framework to help integrate the multitude of variables examined and issues raised. This framework emphasizes four sets of factors: situational context, relationship context, user characteristics and method characteristics, and their relationships to outcomes associated with reproductive technologies (Table 1). This framework was adapted from an earlier model that focused

Table 1. Conceptual Framework for Reproductive Technologies

Cituational Contast	Relationshin Context	Wear Characteristics	Method Characteristics	Outcomes
Situational Context	menonsing concer	COOL CHIMACIONES	mental cumaciones	Cateconics
Service delivery system	Characteristics of	Child-bearing motivation	General accentability	Access to Technology
Dervice delivery system	The state of the s	The state of the s	farman account	Canada or Constant
Accessibility	the partnership	Economic resources	Difficulty of use	Was Outcome Achieved?
Provider attitudes	Stability	SES/Income	Time lost from work or	Proception/Live Birth
Cultural norms/beliefs	Stage	Education	childcare responsibilities	Contraception/Pregnancy
Procreation	Abuse	Insurance coverage	Side effects	termination
Specific methods	Commitment	Cognitions/Perceptions	Effectiveness	Disease prevention
Gender roles	Passion	Beliefs about infertility/fertility	Risks	Psychosocial effects
Legal system	Communication	Perceived risk of conception	Sexual enjoyment	Psychological well-being
Political climate	Gender roles/Power	Beliefs about specific technology	Other "product"	Relationship with partners
Racism/discrimination	Decision making	Perceived stigma	characteristics	Legal Ramifications
	dominance	Sexual comfort	Female control	
	Partner support	Attitudes about gender		
	Sexual behavior	roles/feminism		
		Sociodemographic		
		characteristics		
		Ethnicity		
		Sexual orientation		
		Other		

specifically on factors influencing consistent contraceptive use (Beckman & Harvey, 1996).

Reproductive Technologies: Key Issues

The literature on reproductive technologies, exemplified by articles in this issue, identifies and discusses several key issues and concerns. We discuss these below.

Contextual and Personal Barriers to Use

Many factors restrict women's access to reproductive technology. All four sets of variables identified in Table 1 may serve as barriers to use. For example, lack of uniform statues governing surrogacy (Ciccarelli & Ciccarelli, this issue), lack of health insurance coverage for expensive infertility treatment, lack of information to guide decision making about available options (Woodsong & Severy, this issue), and characteristics of the methods themselves (Harvey & Nichols, this issue; Severy & Newcomer, this issue) may serve as barriers to use. Moreover, barriers are not equitably distributed throughout the social structure (Henifin, 1993). They differentially affect women of certain cultures, race/ethnicities and sexual preferences. Poverty and lack of economic resources, in particular, may limit access to reproductive technology (Henifin, 1993). For example, and as noted above, many technologies, particularly those associated with reversing infertility, are expensive and not covered by medical insurance.

Equally as important as the situational context is the acceptability of a method or procedure to the individual user. New technologies will not be effective in increasing the availability of reproductive health services unless female consumers and providers find these methods acceptable and women are willing to use them. Severy & Newcomer (this issue) describe the issues involved in determining acceptability and the difficulty of measuring it, especially for products not yet in general use. Presumably, the acceptability of pregnancy and disease prevention methods is strongly influenced by the perceived attributes of the specific methods (see Harvey & Nichols, this issue; Koo et al., this issue; Severy & Newcomer, this issue).

In addition, the acceptability of technologies is shaped by factors such as culture, ethnicity, age, social class, and sexual preference. Several articles (e.g., Bird & Bogart, this issue; Harvey & Nichols, this issue; Severy & Newcomer, this issue; Woodsong & Severy, this issue) acknowledge that sociocultural context determines individual perceptions of method or procedure attributes. In other words, method attributes will likely have different meanings and consequences for women, depending on their own personal values and life circumstances.

Complexity of Decision Making

Even when women have ready access to reproductive methods and treatments, the decision to use them can be difficult and emotionally draining. Giving women and their partners more choices also increases the complexity and difficulty of decision making about reproductive issues and may raise painful, ethical, interpersonal, and emotional issues for them (Ciccarelli & Beckman, this issue). In addition, reproductive health decisions frequently are couple decisions rather than individual decisions (e.g., Ciccarelli & Beckman, this issue; Koo et al., this issue; Severy & Newcomer, this issue) which raises issues about power in intimate relationships, gender roles, and women's ability to negotiate outcomes with their partners.

Accurate, easily understood information is essential for informed choices and optimal decision making about reproductive options. In the present political climate, accurate information on certain controversial topics such as sexual behavior or abortion may be difficult to obtain. In some cases, curtailment of funding has led to gaps in the knowledge base (Woodsong & Severy, this issue); in others, misinformation may be provided by groups with a specific social agenda or economic interest (Naughton, Jones, & Shumaker, this issue; Russo & Denious, this issue). Even if accurate information is available, decision making may not appear rational to the outside observer. For instance, Naughton and colleagues (this issue) note that despite strong new data about the health-related risks associated with hormone therapy (HT) older women may be reluctant to terminate HT because they believe it helps to promote a youthful appearance.

In addition, culture is of great significance in individual and couple decision making about use of reproductive technology (Burns, 2003; Dugger, 1998; Erickson & Kaplan, 1998). What is acceptable differs depending on cultural values and beliefs (e.g., Harvey, Beckman, & Branch, 2002; Woodsong, Shedlin, & Koo, 2004). Women may desire to postpone or avoid childbearing in order to achieve educational and occupational goals or because they do not have the economic resources to support another child. However, pronatalist norms may propel them toward motherhood (Russo, 1976). Similarly, in part because of these norms and beliefs, women with fertility problems are willing to undergo stressful, painful, expensive, and inconvenient procedures that often are unsuccessful in order to attempt to bear a child of their own (Stanton, Lobel, Sears, & DeLuca, 2002). Still other women and their partners are willing to contract with a stranger in order to have a baby genetically connected to at least one intended parent (Ciccarelli & Beckman, this issue). Most cultural groups identify infertility as a major problem, with especially strong stigma attached to infertility in women (Mabasa, 2002; Remennick, 2000; Whiteford & Gonzalez, 1995). It is ironic that the cultures that are most pronatalist also are ones that most often disapprove of infertility treatments, especially if donated gametes are involved.