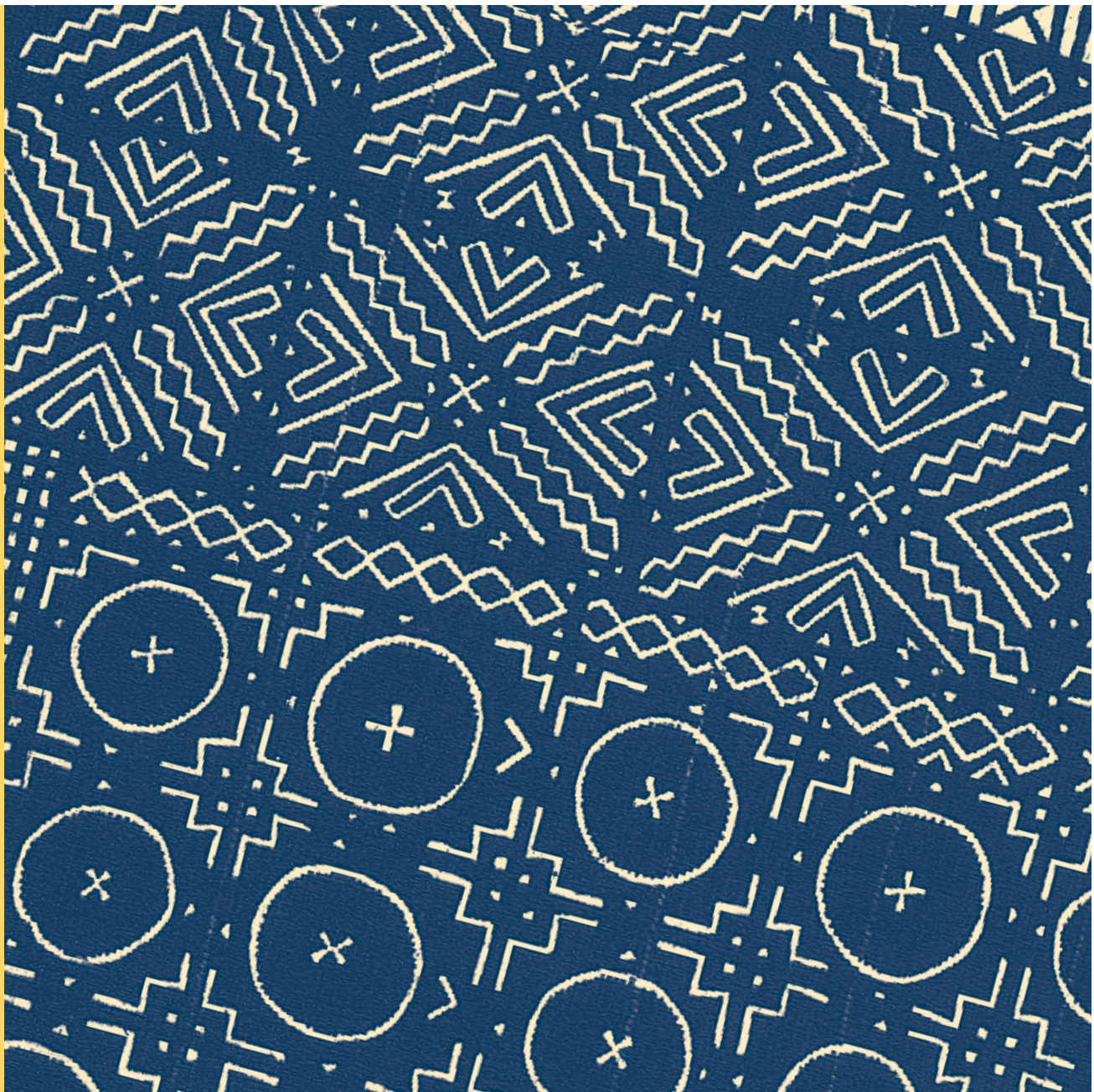

Beyond Acceptability: Users' Perspectives on Contraception

Reproductive Health Matters
for the World Health Organization

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Beyond Acceptability: Users' Perspectives on Contraception

Jane Cottingham

WHAT makes people choose a particular contraceptive? Researchers have been trying to answer this question for a long time, as the extensive body of literature relating to this topic testifies. For scientists working to develop new contraceptive methods and improve existing ones, knowing the perspectives of those who may eventually use the methods ought to help in making decisions about which scientific leads to pursue and which to abandon. For those working in reproductive health policy and programmes, it is important to know what users of health services like or do not like about the services, as a contribution towards improving them. For users and potential users of contraception, articulating their needs provides an opportunity to influence research as well as service delivery. And for potential users, learning of users' perspectives would help them assess the appropriateness of the various methods for themselves.

In the context of improving women's reproductive health, defined and elaborated by the International Conference on Population and Development (ICPD)[1] the agencies and institutions involved in developing fertility regulation technology are increasingly being called upon to take into account the views and experiences of the users and potential users of that technology, most of whom are women. The ICPD Programme of Action recognised that 'Research, in particular biomedical research, has been instrumental in giving more and more people access to a greater range of safe and effective modern methods for regulation of fertility'. It emphasised that continued research in this area 'needs to be guided at all stages by gender perspectives, particularly women's, and the needs of users'.[2]

There are a number of ways in which women's and men's perspectives can be taken into account when setting the research agenda in the development, provision and use of fertility regulation methods. The UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction in Geneva is following a strategy which includes stimulating dialogue with women's health groups on different aspects of its work, ensuring the participation of women's health groups as representatives on its scientific and policymaking committees, and seeking advice on gender issues from its Gender Advisory Panel. That strategy includes defining the kind of social science research that is needed to address unanswered questions in the area of people's perspectives on fertility regulation technology and services, so that these can be improved, enabling people to better manage their fertility.

Scientific meeting

As part of this work, the Special Programme hosted a scientific consultation[3] to examine research into women's and men's perspectives, and to allow an exchange of information and experiences on different approaches to research that are currently being used and explored.[4]

The purpose of the meeting was to review the knowledge that exists on users' perspectives, the methodologies that have been employed to collect that information, and the gaps that still exist in that knowledge. The objective was to provide answers to three main questions:

(1) How can users' perspectives research be used to help technology development?
(2) How can users' perspectives research be used to improve services?
(3) What methodologies are most appropriate, and what mechanisms can be used to ensure that users' perspectives are continually taken into account in both these areas?

The consultation brought together 18 researchers with a broad spectrum of experience, to present, comment upon and discuss presentations on the concepts, methodology and content of recent research on users' perspectives on fertility regulation methods and services.[5]

This introduction summarises the major questions raised and topics discussed at the meeting.

Users' perspectives: what do we know?

An extensive literature review of research in the area of users' perspectives on fertility regulation technology served as background material to the discussion.[6] The main findings from that review can be summarised as follows:

- Contraceptive users lack complete information about both methods and services.
- Women's and men's needs and preferences for contraception change over time and vary with the person's stage of life.
- Universally, women and men would like a method that is safe and effective, but it is not clear what these concepts mean. Side effects and health concerns (particularly with respect to hormonal methods) and method failure (particularly with respect to barrier methods and periodic abstinence) are the major reasons why women discontinue or do not use contraception.
- Individual perspectives and preferences vary widely and defy generalisation.
- The limited range of methods available in many developing countries necessarily limits people's perceptions and preferences.
- Research on people's reactions to a hypothetical method does not usually yield information predictive of subsequent use or behaviour with the method.
- There is a particular lack of information about the perspectives of men, adolescents, women having an abortion, especially repeat abortion, and women in the post-partum period.

Many of these points were reiterated and enlarged upon during the meeting, and in the presentations. Considerable emphasis was given to the questions of who 'users' are, what methodologies are appropriate for finding out users' perspectives, and what the real purpose is of finding out users' perspectives.

Who are 'contraceptive users'?

Who are the people whose perspectives on contraception researchers should be seeking to document? As a focus for research, the groups who comprise 'contraceptive users' must be understood in the broadest possible sense. Obviously a 'contraceptive user' is the person who swallows the pill or wears the condom — as is the sexual partner of that person, who also benefits from, may be affected by and often has a great deal to say about using or not using a method.

Users are also people who could potentially use contraceptives, or who have used them in the past but are no longer using them at the moment, either temporarily or permanently. Further, people who decide not to use a contraceptive method, even though they wish to prevent pregnancy, should also be included, since their reasons for not choosing from among existing methods need to be taken into account. Finally, since service providers are often the gateway (and sometimes the gatekeepers) to the use of contraceptives, they should also be considered as users of products. Indeed the pharmaceutical industry considers them so, and private sector research is frequently targeted at physicians who will be prescribing contraceptives.

On this basis, the lack of information in the public sector about the perspectives of service providers and the perspectives of men as women's sexual partners can be added to the list of gaps in information identified above.

Methodological issues

Results of user perspectives research are extremely sensitive to the research methods employed, as well as the research design and the choice of variables. For example, stated preferences for one method or another may reflect underlying desires or trade-offs that can remain hidden from the researcher. Acceptability data collected as part of clinical research studies cannot fairly be generalised to women who would choose a given method in a normal service setting. On the other hand, clinical trials offer an opportunity – not always exploited – to examine the kinds of women (or men) who participate, or do not participate, in trials of new products, and why. There could also be greater examination in clinical trials of participants'

experiences, views on side effects and perceptions of safety.

People's perceptions may be mediated by a variety of factors, including the quality of health care services, gender roles and the socio-political context. Research questions may assume that people know what their rights are, and that they are able to articulate clearly what choices they make and why, whereas this is frequently not the case, especially as far as women are concerned.

The experience of a number of researchers indicates that if the community trusts the researcher, the information collected is likely to be of better quality, and closer to what users actually feel and think. An approach that actively involves, say, consumer groups in both the study design and interpretation of results can be fruitful, as can research whose results are geared towards taking subsequent action within the community.

Further, a research design which includes a combination of qualitative and quantitative methods may be best suited for assessing user perspectives, as it would ensure that different kinds of information are gathered, and help in the interpretation of results. It could also be important to have an 'independent eye' from outside to validate the interpretation, and research subjects could be asked to help to interpret the data. Besides helping to validate the interpretation and analysis of the researchers, this would provide an opportunity to feed the results of the research back into the community.

Users' perspectives research: what for?

Because research findings on users' perspectives cannot be generalised, and because they are so sensitive to the methodology used, it is important not to over-estimate the conclusions that can be drawn. Although this is a limitation of users' perspectives research, there are still some important uses of this research:

- Technology development

Refining of existing methods, determining trade-offs in attributes, documenting and understanding side effects, demonstrating a market, setting a public sector price, and understanding what information is useful and what is not.

- Improving services

Improving provider-client relationships, developing and improving counselling materials and skills, expanding the range of methods available, improving social marketing, and getting a better understanding of the broader context in which services are provided.

- Information, advocacy and policymaking

Giving a voice to contraceptive users, setting priorities for family planning/health services, grounding advocacy for methods that have been approved and against those found to be unsafe or ineffective, and defining and making policy within the broader context of fertility regulation and reproductive health.

The papers in this publication

The key research questions that emerged during the meeting – areas where the group felt there was an urgent need to know more – include those directed towards the development of fertility regulation technology, and those directed more towards services. (*See Box 'Challenges for Future Research'*) At the core of the meeting, however, was a major debate on people's needs, perceptions and preferences regarding protection against not only unwanted pregnancy, but also sexually transmitted infections. In the face of the HIV/AIDS pandemic, and the growing need for dual protection methods – which protect against both pregnancy and infections – considerations for technology development and service provision are having to change. The discussion revealed how little is currently known about users' perspectives on fertility regulation in the light of HIV/AIDS, and how urgently research is needed in relation to both technology and services.

The papers in this volume, going to press eighteen months after the meeting, have benefited immensely from the insights gained there and in turn, have been able to take those insights several steps further. All the papers analyse and/or illustrate new approaches that seek to answer some of these questions about women's and men's views on fertility regulation, and the sexual and social contexts in which these are considered. They examine factors that impinge on and play a part in why and how contraceptive methods are used. They touch upon the varied, dynamic and changing sexual relationships between women and men, and how

people may act differently from one partner to another, and show that women's choices to protect themselves often depend on their partners' attitudes and support. They examine some of the underlying beliefs women have about their own bodies and health, and the values and fears attached to these. They show that women in the same community may like or dislike the selfsame attributes of a method and opt for or reject it accordingly.

These papers variously explore conceptual issues, review the existing literature, examine a range of methods or a single method and elucidate how and why women and men make choices and decisions to protect themselves. All of them begin to fill in just a few of the gaps identified by the meeting. Half of them were originally presented at the meeting in 1995 in Geneva[7] and have been revised for publication here; the other half were written since the meeting and were accepted for publication especially for this volume.

Reproductive Health Matters is committed to publishing ground-breaking research exploring women-centred perspectives, such as these papers, not only with regard to contraceptive use but in all areas of reproductive health and rights.

The Special Programme is pleased to have hosted the meeting which helped to foster and promote such a high quality of innovative research, and to have supported and contributed to the production of this publication.

References and Notes

1. Cairo, September 1994.
2. United Nations A/CONF.171/13, Paragraph 12.10.
3. 'Women's and men's perspectives on fertility regulation methods and services', Geneva, 29 November – 1 December 1995. The full report of the meeting is available from the UNDP/UNFPA/WHO/ World Bank Special Programme of Research, Development and Research Training in Human Reproduction, World Health Organization, 1211 Geneva 27, Switzerland.
4. The discussion also contributed to a review undertaken by the Special Programme to help set priorities on the fertility regulation products it is currently developing.
5. Participants were: Regina Maria Barbosa, Karen Beattie, Graham Bignell, Ann Blanc, Steve Brooke, John Cleland, Soledad Díaz, Christopher J Elias, Charlotte Ellertson, Sandra G García, Anita Hardon, Hind Khattab, TK Sundari Ravindran, Sunanda Ray, Ruth Simmons, Rachel Snow, Michael Lim Tan and Makhosazana Xaba. A number of staff of the Special Programme and other WHO programmes, including the Global Programme on AIDS (now UNAIDS), also attended.
6. Shah I, 1995. Perspectives on methods of fertility regulation: setting a research agenda. A background paper. UNDP/UNFPA/WHO/ World Bank Special Programme of Research, Development and Research Training in Human Reproduction. Geneva, February.(Unpublished).
7. Presentations at the meeting which were already published and/or were not able to be included in this volume were:
   – Regina Maria Barbosa, presentation based on: Barbosa RM and Villela WV, 1995. Sterilisation and sexual behaviour among women in São Paulo, Brazil. *Reproductive Health Matters*. 5:37-46.
   – Ann Blanc: Methodological considerations (unpublished).
   – Christopher J Elias, presentation based on: Microbicides: report of research into women's preferences (unpublished).
   – Hind Khattab: Women's perceptions of body, sexuality and contraceptive use (unpublished).
   – Sunanda Ray, presentation based on: Ray S, Bassett M, Maposhere C et al, 1995. Acceptability of the female condom in Zimbabwe: positive but male-centred responses. *Reproductive Health Matters*. 5:68-79.
   – Graham Bignell: A perspective from industry (unpublished).

Challenges for Future Research

I. There are a number of seriously under-served groups whose views need greater representation in the technology development process. These include:–
- women and men at risk of HIV and other sexually transmitted infections (STIs)
- women with health problems and those living in poverty
- men (as partners and as users of contraceptives themselves)
- adolescents
- women who are post-partum, especially those who are breastfeeding
- women who have had one or more abortions
- women and men who are not married, and
- refugees, migrants, and displaced persons.

II. More questions need to be asked about experiences of and views on the value and acceptability of specific existing products and those under development. These include:–
- methods offering dual protection against unwanted pregnancy and HIV/STIs
- immunocontraceptives
- new abortifacients
- emergency contraceptives
- male methods.

Examining women's (non-approved) use of existing products to bring on menstrual bleeding could also help to inform the development of fertility regulation methods.

More questions might be asked about which attributes of technology matter most to different people, though it is uncertain how feasible such an effort would be. Some questions that might be explored are:-

- How much and what kind of 'tinkering' is it worth doing to improve the acceptability of existing methods? Which side effects is it worth trying to reduce? For instance, would a more predictable return of fertility following the two- and three-monthly injectables make enough difference to warrant developing a replacement for them? An indirect way of answering this question is to examine how important specific side effects are to women (eg. bleeding changes, headaches, feelings of heaviness, weight changes, effects on libido) and what effects these have on women's daily lives and relationships.
- What trade-offs do people make between, for instance, perceived safety versus perceived efficacy? How much less than 100 per cent effective can an otherwise convenient method be, and still be an attractive option? To which women and men? Why?
- What importance do specific side effects have for sexual pleasure, eg. some microbicides under development may increase vaginal wetness or dryness, which one would be more attractive and to whom?
- Are post-fertilisation methods as acceptable as pre-fertilisation methods, or less tolerated but used as a necessity, and for whom?
- Which, if any, methods do people feel they cannot afford and how much does this restrict their preferences for particular methods?

III. How do socio-cultural and relationship factors affect choice of method? Some key questions in this area are:–
- How much does perceived or actual interference with sexual pleasure influence choice of method for a woman and for her sexual partner(s)?
- How does awareness of STI/HIV risk affect people's choice of methods?
- How does the availability or non-availability of safe abortion services affect women's choice of methods?

IV. Finally, there are many unanswered questions about the role of services and how contraceptive users think they need to be improved, including:–
- What do providers think about integration of reproductive health services? What do those who use services think?
- What motivates people to use or not use services? What attributes of services do people like, and what do they tolerate in order to get what they need in private as well as public services?
- What counselling methods are the most successful in helping to reduce the provider-client hierarchy, increase providers' sensitivity to gender issues, and empower both providers and those who use their services?
- What are the ways in which women get information? Which information do they trust and act on? Which settings are particularly conducive for learning and expressing ideas and perspectives?
- How can the messages of protection against pregnancy and STIs be integrated into services? Into the community? How can peer education efforts be broadened to promote dual protection?
- How do the attitudes of service providers impact on people's perceptions of contraceptive methods? What is the actual content of contraceptive counselling and how useful is it? What might more appropriate counselling consist of?

Beyond Acceptability: Reorienting Research on Contraceptive Choice

Lori L Heise

Acceptability research as it has traditionally been practised in the field of contraceptive research and development suffers from problems of conceptual clarity, measurement, interpretation and, until fairly recently, the failure to contextualise women's contraceptive method choices. This paper offers a review and a critique of traditional acceptability research and argues for a reorientation of that research, away from studies that attempt to predict future uptake and use of contraceptives towards studies that solicit practical feedback on existing contraceptive services and prototype products and that explore how women choose among available methods. Future research must place more emphasis on the context of women's choices and on the interrelationship between method attributes and other factors in women's lives, such as the quality and power dynamics of their current relationship(s), the present stage of their reproductive lives, and the interface between them and the service system. Gaining a better understanding of how women make choices and negotiate trade-offs among methods will undoubtedly yield insights that are useful to policymakers and programme managers, as well as to women themselves. At the same time, it remains a pressing task to ensure that more women indeed have choices to make.

INTEREST in contraceptive acceptability research began in the mid-1970s when it became clear that access to and knowledge of new contraceptive methods were not enough to ensure their use. Although the initial impulse that gave rise to this research was a desire to expand contraceptive prevalence, there was also a commitment on the part of some investigators to make the scientific enterprise more accountable to the end user. As early as 1977, Marshall argued that the goal of acceptability research should be to provide administrators and biomedical scientists with information allowing them 'to modify technology and programs to fit people, rather than modifying people to fit technology and programs'.[1]

While laudable, it is yet unclear how successfully acceptability research has achieved this goal. Although important advances have been made in recent years, the field of acceptability research remains in flux. Some investigators – such as those profiled in this volume – have adopted sophisticated approaches to understanding user preferences and decision-making. Others still work from outdated paradigms that view acceptability as something static and intrinsic to a method.

Historically, there has been lack of clarity regarding the very concept of acceptability – how to understand it, how to measure it, and what it means. Some argue that the purpose of acceptability research is to estimate a product's market potential and/or to predict likely patterns of use if a method were introduced into a public sector programme. Others talk in terms of helping biomedical investigators to determine which of several lines of research would most likely lead to the most popular product and/or meet women's needs. Still others talk in terms of modifying the design of prototype products already under development, or uncovering negative attitudes or other 'barriers' that could be addressed through education or service delivery modifications. Although these goals are not mutually exclusive, they do refer to distinctly different research objectives that are frequently confused in the contraceptive literature.

Feminist researchers and advocates have likewise voiced a number of concerns about the ways in which 'acceptability' has been

conceptualised and measured. The most widespread critique has been the failure of traditional definitions to take into account the context of a woman's life and the impact that service delivery factors have on her weighing of trade-offs among various method attributes. Others have objected to the very term 'acceptability research', citing its resonance with the language of early population control programmes that encouraged strong-armed tactics to recruit new family planning 'acceptors'.

Still others have shifted the entire focus of debate to the larger political question of whether a new method serves women's strategic gender interests. Rather than focus on whether a method is 'acceptable' to a particular subset of women, some advocates have focused on whether a new method increases women's control over their sexual and reproductive lives. For example, does this new method help to increase women's knowledge of their bodies, or does it play into the medical establishment's control over women? Does the method address women's growing risk of STD/HIV? Is the method vulnerable to widespread abuse? Inherent in such questions – and in much of the feminist critique on acceptability – is a different conceptualisation from that which prevails in the scientific literature.

While important, these larger political issues are outside the scope of this paper, which focuses on 'acceptability research' as it has traditionally been understood. To help consolidate recent progress in the field, I review and critique past approaches to 'acceptability research, describe recent conceptual and methodological advances, and suggest new avenues for investigation. Specifically I argue for a reorientation of research from studies that seek to predict future uptake and use of contraceptives towards studies that solicit practical feedback on existing contraceptive services and prototype products and that explore how women choose among available methods.

A matter of definition

Over the years, the definition of 'acceptability' in relation to contraception has been subject to ongoing revision and debate. Acceptability was first defined by the now-defunct Task Force on Acceptability Research in Family Planning, a group formed in 1974 by the Special Programme of Research, Development and Research Training in Human Reproduction, as:

'a quality which makes an object, person, event, or idea attractive, satisfactory, pleasing or welcome'.[1]

The working assumption behind this definition was that acceptability, or the lack of it, was something inherent in a product or a method. Thus, by fixing any deficiencies found in the product, it would become more 'acceptable'. In 1980, anthropologist Susan Scrimshaw published an article that argued that:

'Reproductive technologies should be viewed as having a cluster of perceived attributes, each of which has cultural meanings that influence the overall acceptability of the method.'[2]

This conceptualisation explicitly recognised that attributes could have different meanings and/or consequences for individuals depending on their cultural backgrounds. Severy and McKillop added an additional refinement in 1990, arguing that perceived attributes interacted with an individual's underlying value system.[3] The importance that a person affords to 'user control', for example, will vary significantly, based on whether notions of autonomy and individual freedom are part of their dominant value system.

More recently, feminists have argued that 'acceptability' must be viewed as a complex interplay between a woman, a technology and a service delivery environment.[4] These three spheres of influence interact at any one moment to determine how a woman will weigh the trade-offs inherent in choosing a contraceptive method. In this newer conceptualisation, acceptability is relative, conditional and user-driven.

However, although clearly an advance over earlier work, it is not uncommon to find articles in the mainstream literature that still work from earlier paradigms, drawing conclusions regarding the supposed 'acceptability' of different methods without reference to underlying contextual variables.

Given these shifting definitions, it is not surprising that the field of acceptability research remains uneven and has suffered from a lack of clarity.

Past approaches to acceptability research

Early work in the area of contraceptive decision-making focused on 'contraceptive behaviour', that is, the decision to adopt and continue using modern contraception, especially among young women.[5] The question under investigation was not what determines the type of contraceptive a woman chooses to use, but what distinguishes women who choose to use contraception from those who do not. Later, investigators turned their attention to contraceptive preferences, with an eye to producing guidelines for developing more culturally acceptable methods.

Much of the data available on acceptability in the developing world was undertaken directly and/or supported by the WHO Task Force on Acceptability Research in Family Planning. More recently, other institutions, such as the Program for Appropriate Technology in Health, the International Committee for Contraception Research of the Population Council, and Family Health International in the USA have taken the lead in acceptability research, especially in relation to product development.

Research to date has been strongly influenced by the disciplinary biases of the investigators undertaking the studies. As Paula Hollerbach has observed:

'Family planning studies [including acceptability] have traditionally been conducted by two groups: physicians, who have concentrated on the biomedical aspects of contraceptives, and sociologists and demographers, who have been concerned primarily with analyzing the aggregate characteristics of acceptors, users and discontinuers and less concerned with the underlying reasons for shifts in the patterns of contraceptive use.'[6]

More recently, as behavioural scientists have entered the field, attention in acceptability research has shifted toward measuring women's attitudes, beliefs and perceptions (and recently also men's). Regardless of the approach, however, the living woman, her partner and the context of her life has, for the most part, been absent from this work.

Indicators and measurement of acceptability

Generally, researchers have relied on one of four main mechanisms for measuring acceptability, described below, each of which is based either on behavioural measures or on 'attitudes' as predictors of behaviour. All of these approaches have been criticised by women's health advocates and others because of their limited ability to capture the complexity of women's contraceptive decision-making.

Continuation rates during clinical trials or introductory studies

One of the most frequently cited indicators of implied acceptability are high continuation rates of contraceptive method use during a clinical trial or introductory study. Typical of this genre of study are many of the Norplant trials published in the late 1980s. For example, as Sujuan and colleagues wrote: 'The high rate of continuation indicates that Norplant is acceptable to Chinese women and to the medical and paramedical personnel.'[7]

Women's health advocates have taken exception to the tendency to equate high continuation rates during clinical trials with the likely uptake and effective use of the product in a less-controlled setting. As Anita Hardon points out, the family planning clinics used for clinical trials are often some of the best run and well-resourced clinics in a country. It is potentially misleading, therefore, to generalise from these settings and the relatively select population they serve, to women's likely experience in the country at large (especially since the health status of women and the quality of available services may be significantly lower outside the study setting).[8] Juan Guillermo Figueroa Perea shows that this is true through an examination of the results of acceptability studies of implants and the once-a-month injectable before and after the wider introduction of these methods in Mexico.[9]

Attitudes toward hypothetical methods and method attributes

Another genre of study attempts to predict acceptability based on women's expressed attitudes toward hypothetical methods and/or method attributes. Some of the early WHO Task Force studies used this approach to explore women's preferences regarding 'ideal methods'. According to a ten-country study, for example, changes in menstrual bleeding patterns emerged from among a variety of contraceptive side effects as especially significant in determining

the acceptability of methods among developing country women. Methods that stopped menstruation entirely were found to be particularly unacceptable. Women said that regular menstrual bleeding assured them that they were not pregnant, affirmed their ability to bear children and indicated that the body was eliminating impure blood, a condition considered important for good health in many countries.[6]

Yet continuing research has shown that women are not very good at predicting their actual preferences from hypothetical scenarios, except when an attribute is perceived as deeply unacceptable, such as cessation of menstrual bleeding.[10] In a five-country study on women's preferences between over-the-counter spermicidal products, for example, there was little concordance between women's predictions of their preferences prior to using the products with their expressed preferences after trying out the products.[11] The women proved to be very poor predictors of their own preferences.

Such studies, by their nature, frequently encourage women to reflect on each of a method's attributes individually, without recognising that method choice represents a trade-off among all of its attributes. Although women's views about ideals may be illuminated by such studies, in reality women are generally forced to choose among several less than ideal options. What is significant is not that women value attributes like effectiveness or ease of use highly, but how they weigh the relative importance of these and other factors when they come into conflict in a given method. Many attitudes and potential barriers are subject to change; hence, a distinction must be made between factors that are potentially malleable (eg. the fear that condoms will get lost inside) and those that are not. For these and other reasons, studies based on hypothetical method attributes fell into disfavour during the 1980s.

Expressed attitudes towards a method after use

Because of the problems inherent in interpreting hypothetical method preferences, an increasing number of researchers began designing studies specifically to assess women's perceptions of methods after they had had experience with them. These have either been 'stand-alone' research projects or integrated into ongoing safety or efficacy trials of a new product. For example, Winikoff and colleagues[12] recommended the following list of questions for assessing the likely acceptability of a prototype product:

- Would you use this product if it were available? Why or why not?
- Did you find it satisfactory? Why or why not?
- Would you use it again (or recommend it to others)?
- How does it compare with your experience of other methods?

Again, care is needed in interpreting findings from such studies. Who exactly are the population of individuals being asked? How does this group compare to the population most likely to use the product? For example, women chosen to participate in contraceptive efficacy trials and/or early safety testing for HIV or STD prophylaxis, are generally at very low risk of contracting sexually transmitted diseases. Their willingness to tolerate certain inconveniences or side effects would likely be very different from that of women who are aware they are at high risk and afraid of contracting HIV or STDs.

Uptake of a method in the context of other choices

A fourth genre of studies has attempted to understand women's decision-making by exploring what methods women actually use when given a choice. Such studies either analyse differences between women who choose one method over another, or randomise women to one of two choices and afterwards evaluate their satisfaction with each of the methods (eg. medical vs. surgical termination of pregnancy).[12]

Many of the early US studies that adopted this approach tended to focus narrowly on demographic and attitudinal differences among users. A review of US studies on contraceptive choice, for example, found that:

'An inverse relationship has been reported between pill use and socio-economic status in a number of studies, including studies in teens. In general, religious women were less likely to use the pill, IUD or sterilisation than other women and Catholic women were more likely to use barriers than were Protestant women. African Americans are less likely to use coitus dependent methods

than whites, and more likely to choose female sterilisation....' [13]

Yet these studies did not probe into the reasons why these differences pertained. Other limitations are evident in quantitative studies such as the World Fertility Survey (1979) and the Demographic and Health Surveys (ongoing since the mid-1980s). For example, to elicit why she had chosen or discontinued a particular method, a respondent was required to give one main reason, even though she may have had several reasons or felt reluctant to reveal her concerns. As a review of the literature observed: 'The ease of analysis offered by DHS-type data is compromised by the absence of in-depth information which could identify the multiple dimensions of the decision to use contraception, to use a specific method, or to abandon use.'[14]

Issues of interpretation

Women's health advocates are concerned about the conceptual and measurement fuzziness of 'acceptability' mostly because of the tendency of policymakers to use such data to draw sweeping conclusions regarding women's needs and preferences: 'women don't like barrier methods;' 'women prefer long-acting methods;' 'Norplant is acceptable to Chinese women.' It is this over-reading of research findings that advocates find most problematic.

For example, many acceptability studies draw conclusions regarding the acceptability of a method without fully defining 'to whom' and 'in what context'. The majority of research to date has failed even to collect data on contextual variables – such as where the woman is in her reproductive and sexual lifecourse – much less analyse how priorities change over time.

In fact, the existing literature suggests that attitudes toward perceived method attributes are only marginally predictive of method choice and/or use. For example, a study examining women's attitudes toward and use of various contraceptive methods in Los Angeles[15] found that only 40 per cent of the variance in perceived desirability of each method could be explained by the method's attributes. An even smaller percentage of variance in the actual method used could be explained by the perceived attributes of the method (4 to 17 per cent, depending on which method it was). Without knowledge of important life-course variables or service delivery factors, method attributes offer only limited insight into contraceptive choice.

Capturing context

One of the most enduring legacies of feminist involvement in the field of contraceptive decision-making has been its emphasis on how contextual factors inform and condition women's preferences for different contraceptive methods. It is now increasingly understood that contraceptive choice is determined at any given moment by a complex interplay between a woman, available contraceptive methods and the service delivery environment.[4,16]

The influence of service delivery systems

As early as 1987, Judith Bruce observed:

'Whatever the intrinsic properties of a given contraceptive technology, the technology package is not complete without considering the service delivery mechanisms that encircle it. They may determine the acceptability of contraception itself as well as the individual method. The service delivery experience encapsulates the method and in the clients' minds, is part of the 'technology.' Women do not choose simply to use a specific method; they choose to accept interaction with an often complex service apparatus. Women weigh the benefits of modern contraception and contact with the service provider against a broad spectrum of risks to status, their personal economy, partnership relations, and ability to work.' [17]

Numerous studies have described how attributes of the service delivery system influence women's decision-making, eg. social access; the attitudes and behaviour of providers; the physical attributes of the delivery site; and the availability of different methods and the extent and quality of information given about them. Nowhere is this clearer than in the findings of a four-country study conducted by the WHO Task Force on Psychosocial Research in Family Planning in India, Turkey, the Philippines and Korea. What the study revealed – among other things – was the profound impact that provider bias has on method choice and uptake. The profile of methods chosen under conditions of full information differed radically from the profile

of methods chosen in the year prior to the intervention.[18]

User perspectives: the context of women's lives

A woman's preferences and tolerances for various method attributes also vary according to the type of relationship she is in, her reproductive intentions and other aspects of her life. For example, the relative weight that a woman gives various method attributes will depend on issues such as these:

- Is this a new or established relationship?
- Is this a primary or casual partner?
- What are the gender/power dynamics of this relationship?
- Is the woman a sexual novice or experienced?
- Does she want to get pregnant within the next year?
- Has she experienced a contraceptive failure?
- Is she lactating?
- How often does she have sex?
- Does her partner approve of contraception?

In fact, where life-course and contextual variables have been measured, they have often emerged as more predictive of method choice than specific method-related attributes. For example, in the same WHO four-country study,[18] discriminant analysis revealed that the length of time before a woman's next desired pregnancy was a major factor influencing her method choice.

Likewise, in a study exploring women's decision-making regarding the contraceptive sponge, over one fourth of women reported that a change in relationship status (eg. divorce, separation, new relationship) preceded their decision to adopt the sponge – a fact that signals that women changed the weight they gave various method attributes as their relationship status changed.[19] A number of other investigators have noted that the decision to use a particular type of contraceptive is influenced by the length/stability of the sexual relationship,[20] a woman's motivation to avoid pregnancy, and other psychosocial factors.[21]

For this and other reasons, 'acceptability studies' that focus on method attributes alone fail to properly predict contraceptive uptake and use. Unfortunately, the very language of 'acceptability' reinforces the false impression that 'acceptability' is a good predictor of the ultimate 'acceptance' of the product by individuals.

Reorienting research on contraceptive choice

It may be time for the field of reproductive health to abandon the term 'acceptability' and replace it with one that better reflects changing concepts in this area. One option is to adopt the language of 'user perspective research', a term already in use among some advocates and researchers. This term not only broadens the horizon of investigation to encourage exploration of users' views on quality of care, service delivery systems and other dimensions of reproductive health; but it also makes explicit that the purpose and goal of research is to understand and support contraceptive use from the perspectives of the women and men who use contraception.

I would argue for a two-pronged research agenda that: (1) solicits user feedback on existing and prototype technologies (and the service system in which they are embedded) and, (2) explores how and why women make the trade-offs that they do when choosing among available methods. The first research agenda would provide feedback useful for improving service delivery, identifying opportunities to improve use through client skill-building and education, and refining the design of products under development. The second research agenda would deepen our understanding of how women and couples negotiate the trade-offs inherent in selecting methods in a less than perfect world.

A recent global review of women's perspectives on fertility regulating devices concluded that almost universally, women seek highly effective methods that are perceived to be safe and free of side effects. Beyond these factors, only direct involvement of the user in the choice of the method, advance information on possible side effects, and spousal support have consistently predicted uptake and continued use of a method.[14]

To move understanding of how women choose among contraceptives beyond these elements, more sophisticated models need to be developed. Tentative steps toward this goal have been made through attempts to apply decision-

making theory and behavioural science to contraceptive choice (eg. using the Fishbein and Rosenberg models). Each of these models is based on certain cognitive assumptions about how beliefs and attitudes combine to create the intent to act. The Fishbein model, for example, argues that behavioural intention is a function of attitudes towards performing the behaviour (eg. adopting Pill use), subjective normative beliefs about what others think the person should do, and how motivated the person is to comply. With each model, investigators must perform qualitative research among members of their population in order to identify the norms, attitudes and beliefs that are salient.

These models have a number of limitations when applied to the issue of contraceptive choice. First, such models have mostly been used to estimate the expected value of a particular target behaviour (eg. using the Pill), without considering how a woman integrates this assessment with her assessment of alternative options.[22] They also assume that women make an affirmative choice to adopt a particular contraceptive method; yet qualitative data suggest that women 'settle for the least of the worst', or choose the 'least bad' alternative.[23-25] Finally, they assume that individuals give equal weight to potentially negative and positive consequences, whereas studies suggest that when choosing contraceptives, women tend to weigh possible negative consequences more heavily than positive ones.[26] As Severy and Thapa have observed:

'People select among alternatives so as to avoid features more than they seek positive features. The data often show that it is not so much that couples use a method because the method is well liked, but rather that the chosen method is better than alternative methods the couple dislike even more.' [25]

Unless these models are adapted to take such findings into account, they may fail to predict contraceptive choice accurately.

One mechanism that has potential for building a more grounded theory of contraceptive decision-making is to adapt the time-honoured feminist technique of 'life history'. Women's groups and feminist researchers have used qualitative techniques for years to capture women's voices. More systematic use of this technique among women from different age groups and a variety of cultural settings could be used to derive new models of contraceptive decision-making that could be tested empirically later through quantitative research.

A 'contraceptive life history' asks women to recount their sexual lives from the perspective of their contraceptive choices. What method, if anything, did they use with their first sexual partner? What were the circumstances of their lives and relationships when they made that decision? What factors were the most salient to their choice? How did the method work for them? How did their partner like the method? How aware were they of other options? What did they do when and if they changed partners? What made them quit or change methods? For each new partner or significant life event (relationship break-up, pregnancy) the interviewer can probe what impact (if any) the event had on the woman's choice of contraceptive.[27]

In 1996, I conducted contraceptive life histories with eight middle-class, white women in the United States. The women were all in their thirties and were very concerned about the degree to which they controlled a method, regardless of its other features. They tended to use barrier methods at the beginning of sexual relationships and then switched to longer-acting hormonal methods. As sexual novices they had tended to try whatever their friends were using. The first method they had tried (usually as a teenager) was the one they felt they could get most easily and with the least embarrassment (which method actually best fit this description varied from woman to woman). Those who sought advice from providers when they were young were highly influenced towards using the pill. Those who did start with the pill often rationalised the decision as an action they were taking 'to regulate their periods'. Providing predictability to menstruation was cited as one of the major benefits of the pill perceived by them as adolescents. The possible health consequences of a method seemed to become more important as the women matured. They generally abandoned methods that failed them.

Trends, even among this small group, suggest hypotheses that could be tested empirically, for example: Is 'stage of relationship' a good predictor of method choice in this population?

How much of the variance among methods chosen by young women can be explained by the following three variables: familiarity with method, advice of provider/friend and access without embarrassment? Similar qualitative techniques could be used to develop new generic models of contraceptive decision-making that better capture women's tendency to choose among the best of several less-than-ideal options.

The advantage of life histories over other qualitative techniques is that they solicit longitudinal data about how women's choices change depending on their context. The narrative structure of life histories also mirrors the way that many women think about relationships and sexual choices, thereby providing respondents with a useful frame for their own reflection. As with any retrospective technique, however, life history data is subject to bias, eg. arising from subsequent experience. Nonetheless, as a tool for generating useful hypotheses for further empirical testing, this and other techniques being developed have great promise.[28]

Setting priorities

While all of the above lines of research are of theoretical interest, I would argue that priority should be given to systematic user perspective research. User perspective research holds promise of providing vital feedback on the local realities that inform method uptake and continuation. If reproductive health professionals and advocates want to improve the sustained use of modern contraceptives, we should begin by tackling those parts of the service system/user/technology interface that we already know affect uptake and choice, ie. ensuring that a range of existing contraceptives are available in all settings; improving the quality of family planning services; placing increased emphasis on adequate contraceptive counselling; and providing basic reproductive and sexual health education. Systematic feedback from current and potential users of such services would be an important first step toward identifying areas for intervention.

In the context of developing new methods of pregnancy prevention, it will likewise be important to ensure that social scientists work with those carrying out contraceptive technology development to ensure that user needs and perspectives are solicited throughout the process. Although there may be less flexibility than Marshall once hoped to adapt contraceptive technology to fit people, user feedback does make a difference. It is important, however, to separate user perspective research from the expectation that it will accurately predict use.

The challenge of elucidating the 'black box' of contraceptive decision-making is a task of theoretical import. Gaining a better understanding of how women make choices and negotiate trade-offs among methods is, in itself, an intellectual task worth pursuing, and will undoubtedly yield insights that are useful to policymakers and programme managers, as well as to women themselves. At the same time, we must not let this deter us from the pressing task of ensuring that more women indeed have choices to make. Once institutional barriers to choice are eliminated, the task of understanding how women's personal preferences fit in, will take on new import.

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Why Research on Contraceptive User Perspectives Deserves Public Sector Support: A Free-Market Analysis

Charlotte Ellertson and Beverly Winikoff

Research on users' perspectives on fertility regulation is an important social good that deserves public sector support. Fertility regulation technologies and services differ from other consumer goods and services and even from other medical goods and services in ways that make user perspectives research both more important and less likely to get done without intervention by the public sector. Although there are some limitations for this type of research, there are many significant uses, including refining methods, developing counselling materials, building advocacy cases for or against a particular technology and documenting side effects. Those conducting this research should employ a broad definition of 'users' that covers actual and potential users of a method, their partners, and also providers.

THOSE who use a technology should have some say in its design. In the case of a typical good or service, this statement is little more than common sense. A thriving industry of market researchers and pollsters exists to tell the makers of goods and services what the consumer wants. In the case of fertility regulation, however, it is both less likely that the 'users' will be allowed a say without intervention, and more important that they have one.

Historically, contraceptive researchers have been guided by technology and by their own views of users' experiences with the methods.[1] Such an approach is changing as social science research has made it clear that contraceptive development cannot remain narrowly focused on the biomedical if it is to serve the goal of furthering reproductive health. In fact, the recent International Conference on Population and Development, held in Cairo in 1994, emphasised that fertility regulation research 'needs to be guided at all stages by gender perspectives, particularly women's, and the needs of users…'[2]

This paper describes the special circumstances that distinguish fertility regulation technologies and services from other goods. It explains why users' perspectives are more likely to be ignored without a push from advocates and the public sector.

Contraceptive users are typically considered the women who ingest the pills or the men who don the condoms. In fact, contraceptive use generally takes place in a social context characterised by at least two decision makers. User perspectives research should account for this broader view, and should encompass both the woman and her partner (or partners) where applicable. 'Users' should also include potential users, and those who use fertility regulation methods that do not depend on services or need to be purchased.

A social good

Why, in the field of fertility regulation, should public sector institutions invest their limited resources on user perspectives research? Why not leave such matters to the private sector, for instance? Other health conditions typically do not command public sector spending on such research.

Several approaches to this question are possible, including feminist,[3] demographic,[4] and programmatic.[5] This paper presents an economic, free-market analysis, under which user perspectives research can be classified as a social good (like roads or clean air) that the market

alone will not produce in sufficient measure. The research is a social good because, like contraception or fertility regulation itself, the research has implications beyond the two parties (producers of contraceptives and consumers of contraceptives) most directly involved. If women and men cannot plan their reproduction as they choose, society suffers externalities in the labour market, in the environment, in human rights and in countless other ways. An important economic role for the public sector is to top up the amount of social goods produced privately.

Differences from other health goods and services

In a free-market analysis of the special case of fertility regulation, severe distortions become apparent in the relationship between consumer and producer. Where the relationship between consumer and producer is straightforward, there may be no need for the public sector to step in. However, in the special case of fertility regulation, this relationship is far from straightforward. The links between consumers and those who develop the technology are no longer direct, as many parties serve as links in the chain.

Consider a series of pharmaceutical products, ranging from widely available consumer goods to prescription contraceptives, that illustrate various relationships between producer and consumer (or 'user'). Each example introduces a further distortion from a straightforward relationship between consumer and producer. By the time we reach prescription contraceptives, the relationship is quite distanced indeed, and the case for affirmative steps to link the user back to the contraceptive developer is clear.

Beginning with the case of a regular commodity, user perspectives are typically very much taken into account. In fact, little else drives their design, marketing and distribution. A host of consumer research techniques are well-developed and consistently employed to assist companies in making their products the most responsive to consumer desires. An obvious example is hand lotion. The company seeks to create a product that will be appealing to the users, who will then buy its brand. The company needs no external impulses or regulation to come up with a formula and design that appeals to users. If the company fails in this mission, users will not buy the products, and the company will lose business. The user herself can judge the safety of the product (including whether it irritates her skin), the efficacy (whether it soothes chapped skin) and the acceptability (whether it is quickly absorbed, pleasant smelling, worth the money and so on). Risks are apparent, and efficacy easily judged. The feedback given by the user to the manufacturer is immediate and undistorted. Consumers give feedback both by their purchasing habits and their participation in preliminary consumer research. Not only can the company track sales, but it frequently invests heavily in customer focus groups, surveys, telephone complaint lines and the like. Any public sector role is minimal. The government's only role should be to ensure that the material used in the manufacture is not toxic and that advertising claims are fair.

Moving to the case of a product used to treat a symptomatic disorder, the same points are still largely true, although small distortions are now introduced, for example in the cases of aspirin or antihistamine. Since the product will be ingested, it arguably has more potential to cause harm to some users than lotion. Safety risks are not fully apparent, particularly if cumulative or chronic effects exist. There may be sufficient reason to warrant a role for the public sector to require manufacturers to provide basic safety information. Efficacy and acceptability determinations, however, may still be left entirely to the user, and the feedback mechanisms by which the user informs the manufacturer of the product's appeal still link the user to the manufacturer. Regulation for such drugs should be limited to basic safety information and the assurance that any efficacy information presented is not false.

Users, however, need such information only as a rough guide, as their own experience fills in any gaps. In order to find a product acceptable, the user must decide that the drug 'works' for her. A drug like aspirin offers little to the consumer apart from its efficacy (its colours are not particularly appealing, it does not taste delicious and so on). Each user effectively performs her own efficacy trial. Even if a brand works for 80 per cent of people, an individual user might not find the drug efficacious, and so will not buy it more than once. For this reason, there is no need to spend public sector resources to determine the acceptability of such products.

Aspirin brands that are sold in ugly colours or bottles, or are formulated in larger or smaller tablets, can remain on the market as long as there is sufficient demand for them. Users can 'vote with their wallets', and drug companies have the incentive to listen.

The situation changes somewhat with a preventive drug. Taking first the case of an over-the-counter preventive drug such as calcium tablets, the efficacy of the drug is less apparent than it is for a drug used to treat a symptomatic condition. How can a woman tell whether her calcium tablets are truly protecting her from osteoporosis, or trickier yet, that they are limiting the severity of the osteoporosis she would otherwise suffer? In such cases, users cannot choose a medication without information about efficacy as well as about safety. For this reason, the public sector must step in to ensure that such information is accurate and available. Yet there is still no role for publicly funded user perspectives research if the drugs are chosen directly by consumers. When the users are selecting the products directly, the makers of the drugs still have correct incentives to design their products to be as appealing as possible, which cannot be done without some investment in user perspectives research.

Moving to a preventive drug that is available by prescription only (for example, glucose-lowering drugs for diabetes or cholesterol-lowering agents), access to information becomes asymmetrical, as doctors have far more than do patients, and a gatekeeper is introduced. With most prescription drugs, a gatekeeper both defines the need for a drug and makes the choice of drug. Users may be entirely excluded from a decision that a side effect or symptom merits treatment at all, let alone with which agent. With such products, the 'users' of interest to the producers are not the end consumers, but rather the doctors or other health professionals who select the brand to prescribe. As the promotional logo pens and note-pads so omnipresent in a typical doctor's office attest, drug companies usually market to the physician, not the patient.

Although pharmaceutical companies spend hundreds of millions of dollars on user research, the 'users' they invariably study in the case of prescription drugs are physicians. Certainly physicians care about whether a product is palatable to their patients, but the physician's interest clearly diverges from the patient's. An example of this split between doctors' and patients' interests is the so-called 'nuisance' side effect. For instance, market research on antibiotics might show that doctors commonly pass off yeast infection as a nuisance side effect, while user perspectives research with women finds that such infections can dominate their lives, sometimes leading them to avoid needed antibiotic treatment.

With prescription drugs, therefore, the signals from the ultimate user to the manufacturer can be quite distorted. The link to ultimate users is sometimes even cut intentionally. For example, one reason that drug companies do not advertise to consumers more often is that it angers physicians, who resent being asked about drugs by patients, particularly when the questions concern a new product, or a new indication for an existing product, with which they are not yet familiar. In such cases, user perspectives are wilfully ignored because the users are not making the critical decision about whether the product will be selected. Even so, in some measure, physicians have at least limited incentive to consider their patients' wishes in their own behaviour. The research done by pharmaceutical companies will focus on physicians but will measure some user perspectives, even though distorted.

It is with this sort of product that a role for health advocates to speak directly for the users is created to bridge the gap. Individual users may each have insufficient incentive to organise, or may lack the expertise required to do so, and so advocates for public sector user research can strengthen the link to manufacturers. The AIDS treatment movement in the United States is one clear example. Health activists banded together and negotiated directly with industry and government, bypassing physicians.[6]

The case of contraceptives introduces another set of complications. At least three factors intervene in the market link between users and manufacturer. First, the history of contraceptives shows clearly that physicians hold a social role of policing contraceptives (and abortion) in order to regulate women's sexuality (particularly the sexuality of adolescent women).[7,8] Physicians in the United States, for example, seized this social authority during the fledgling years of the American Medical Association while they were

becoming established as a guild.[9] One legacy of this social arrangement is that a woman in the United States is unable to purchase a diaphragm even when she knows her size. Medically, a replacement diaphragm for one lost or damaged, for instance, is no more dangerous than a pair of glasses – a woman herself could determine the need, and whether she knows her correct size. Hence, she should be allowed to purchase a diaphragm in the pharmacy directly unless she prefers to be measured by a trained provider and get the device on prescription. But she may not, although she may purchase eyeglasses. In this sense, gatekeepers feel especially entitled to determine women's (though not men's) need for a contraceptive. Some legal codes give health care providers formal authority to decide whether teenagers or unmarried women, for example, should receive contraceptives, and if so, under what circumstances. Obviously, having this authority has much greater implications for prescription methods.

Second, an increasing proportion of contraceptive development now takes place in the public sector rather than in the private sector. Since the late 1960s, spending on contraceptive development has dwindled in industry as all but a handful of the large pharmaceutical firms once active in contraceptive development have dropped their research programmes.[10] In the United States, for instance, where 75 per cent of the money spent on reproductive research and contraceptive development originates, only one large company, Ortho Pharmaceuticals, out of nine formerly active, continues to conduct research. Worldwide, one estimate attributes a mere 35 per cent of contraceptive development spending to private industry, with the rest supported by specialised contraceptive development organisations and governments.[11] Fertility regulation has characteristics of a social good, and it is entirely appropriate that public sector resources go toward developing contraceptives. But because most of the organisations conducting contraceptive development lack a profit motive, they may not invest in sufficient user research to accompany the services and technology. They cannot be slapped so easily by the invisible hand of the free market.

Third, the commodities of many family planning programmes are donated. Decisions about which brands to donate may be made on price grounds, on the basis of existing surpluses (ironically one of the worst ways to choose an appealing brand) or on political grounds. When providers lose the power to choose between brands, manufacturers have little incentive to conduct any user research. Even the distorted signals sent by users through physicians are now gone. If it is to happen, user research must come about by fiat and with public sector resources.

Finally, many family planning programmes remain driven by demographic concerns rather than by profit motives. For this reason, they overemphasise efficacy at the expense of other attributes of a method. (Researchers affiliated with such programmes may share the same bias.)

Taken together, these distortions in market behaviour imply that the public sector must intervene to foster objective user perspectives research if consumers are to have a role in the contraceptive development process.

Limitations in user perspectives research

User perspectives research, however, is not a panacea. A thorough review of the empirical literature by Shah[12] offers several limitations for the application of user perspectives research. For example, users typically lack complete information, and their views tend to be too abstract and speculative to guide biomedical research for methods that are entirely new. User perspectives also change over time, vary with the users' stage of life and are influenced by personal, environmental and social contexts. While users want safety and efficacy, they are not always clear about what these concepts entail or how they trade off against one another. Individual user perspectives also vary widely, typically enough to prevent meaningful generalisations.

The following are some additional conceptual caveats for those interested in generating and integrating user perspectives research:

Public health is inherently paternalistic. Consider campaigns to promote smoking cessation, car seat belts and motorcycle helmets. Each of these public health objectives is now generally considered good. None, however, would exist if user perspectives were fixed and paramount as initial reactions were opposed to limiting individual freedoms. In each case, public health policy sought to achieve the greatest good for the greatest number. In doing so, policymakers

trusted that those who were opposing the policies would either come around (as has largely happened in the cited examples) or could be ignored. In this sense, the public health stance toward some contraceptives has been similar to the stance toward the environment, for example requiring a minimum age and parity for sterilisation, which suggests that individuals cannot make these decisions for themselves.

New technologies are typically greeted with ambivalence by the public. Innovations often face some skepticism at first and immediate user preference research may reflect this initial mistrust. For example, the early history of contraception in the United States shows that the douching syringe was greeted with considerable trepidation, not on grounds of safety or lack of efficacy, but because social norms had not adapted to the idea that technology should influence a woman's childbearing patterns. In May 1878, Dr Sara Chase was detained on $1500 bail and charged with selling two of the devices.[13] Her arrest warrant pointed out that with these syringes 'she places it within the power of wives to prevent conception'. Contemporaneous user perspectives research among the general public might well have found that any such fertility regulation technology was unwanted by society as a whole.

Enforcing regulations and offering information to users, which requires a developed system of contracts, is expensive. Many developing countries by necessity still take a more *caveat emptor* (buyer beware) attitude. For example, someone tripping into an obvious pothole in Bangkok is considered clumsy or unfortunate. Someone tripping into an obvious pothole in New York is considered a potential plaintiff with a strong case. As a country gets more contractual (often, but not always, a function of the wealth in the country), it can enforce more safety and efficacy provisions and adopt a more paternalistic public health policy. Often, advocates who arm themselves with user perspectives research are essential players in bringing about these contractual standards.

It is difficult to know when to abandon a safe and effective fertility regulation technology on the basis of insufficient user interest, especially when it is unclear what that lack of interest represents. If user perspectives and public demand concur, for instance, should the diaphragm be removed from the publicly supported roster of available methods? Or are redoubled advertising efforts indicated? If five per cent of users prefer the method, is that too few? A clear answer would be available in the private sector because of the bottom line considerations of profitability, but such decisions must be made by fiat in the public sector. Traditionally the public sector has supported technologies in spite of small markets if the technologies are acutely needed by a few people, for example if the people are unable to use any substitute, or if the consequences to the few are unusually drastic.

Results of user perspectives research are extremely sensitive to the research methods employed.[14] Stated preferences may reflect underlying desires or trade-offs that remain hidden from the researcher. Acceptability data collected through randomised, controlled trials cannot fairly be generalised to women who would choose a given method. Such trials typically have a uniform goal of gathering safety and efficacy information, but even these may not be accurately generalisable to the population who would select the method. For example, a review of 12 published studies of medical abortion found that only one study was even arguably generalisable to women who choose their method[15] despite the particularly important role method selection plays in a successful experience with medical abortion. Perhaps as important, conventional research has rarely focused on ascertaining the reasons why potential users do not opt to try a particular method. Such 'users' are extremely important in determining how best to improve a method.

Roles for user perspectives research

Despite its limitations, user perspectives research has several important roles to play in reproductive health. One of the clearest and most valuable uses of this research can be to improve and refine existing methods. Users can generally articulate well those features of an extant product that they dislike. Often, such feedback can lead to concrete improvements. Closing the circle between designer and consumer, something done routinely in the private sector but missing in the public sector, is one of the simplest and best uses of public sector user perspectives research. While some unappealing

features of a method may be immutable, others (such as the formulation or delivery vehicle of a spermicide) may be readily altered.

The research can help in developing or improving counselling materials. An immediate need for any woman selecting a method is information. Not only should she be given information about the safety and efficacy of the method and the steps she will need to follow to use the method best, but she should have access to guidance gleaned from other women who have used the method. Research into the perspectives of such women can produce information about how a method should best be described to other potential users, as well as how new users can best employ the method and what their expectations might realistically be.

Prices can be guided by user perspectives research. In programmes that must recoup costs or generate income using donated commodities, user research can help determine how prices should be set. In using research this way, however, the public sector should take a long range view of cost-effectiveness, keeping broad social goals in mind. Private industry has tended to focus on maximising profits, while demographically driven family planning programmes have tried to maximise use. The International Conference on Population and Development, influenced by feminist principles, clearly indicates that the goal should be to maximise the health and reproductive rights of the users.

User perspectives research may be useful in determining trade-offs in attributes. Users would naturally prefer absolutely safe methods that are 100 per cent effective. Until a range of such methods is developed to appeal to all users, user perspectives research can help to determine in which sphere research efforts should be concentrated. Research should also allow for the possibility that certain safety compromises may be acceptable to some users, even if not to policymakers. In such research, it is particularly critical to consider the entire range of users, including those who have used a method but abandoned it and those who have never tried a method or service.

Documenting side effects, whether of clinical importance or not, is a further important function of user perspectives research. User perspectives research is an excellent way to collect information about side effects. Often women will be reluctant to report side effects spontaneously to a provider. Directed research, however, might be able to uncover such problems.

User perspectives research can assist with setting priorities in fertility regulation services. Particularly if only one of a family of technologies will be available (one method of abortion, one formulation of spermicide or one long-acting contraceptive method, for example), user perspectives research can help identify and select the one method to offer.

User perspectives research can be employed to demonstrate a market. Although private industry currently accounts for only a minority of contraceptive development, several reproductive health needs are still addressed by private sector efforts. The process of drug development in the private sector is shifting. New drugs were traditionally developed by compound screening or by developing applications based on basic research that elucidated mechanisms of action. Largely because of the expense involved in this traditional mode of research, modern pharmaceutical companies are switching to 'targeted drug development', a method potentially more amenable to user perspectives input. In targeted drug development, a lucrative market is identified, and researchers investigate leads that will accomplish a given purpose. User perspectives can demonstrate that a feasible market exists and that priorities should be given to technologies that meet certain criteria.

Communication between consumers and providers may be promoted by user perspectives research. It may be inherently good for users to have their opinions and experiences asked, even when they have no horror stories to report. Similarly, it may be good for providers to cultivate the habit of hearing, learning from and responding to users. When they are also service providers, women's health advocates can serve as important collection points for information from users.

Advocacy for or against a technology is often grounded in user perspectives research. Often the fact that users want a technology can be enough to influence policymakers to make that technology available. For example, women in the United States have access to safe and legal early abortion performed by vacuum aspiration. Yet research indicating that American women want access to mifepristone abortion caused

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President Clinton to initiate a political process that opened the way for the method to reach the USA. As another example, users whose needs form a specialised niche may be ignored entirely without organisation and advocacy that grows from user perspectives research. Advocacy groups are often formed specifically to support or oppose a particular technology, such as Norplant or Depo-Provera.

The multi-billion dollar advertising industry bears testimony to the malleability of perspectives and preferences. User perspectives research could guide social marketing of family planning and reproductive health. Social marketing in family planning, and to a lesser extent in other aspects of reproductive health, has been limited largely to making the goal of smaller families or safer sex appealing. Social marketing efforts could go further and make contraceptive methods more appealing because of their non-contraceptive benefits: for example, pills could be described as a way for women to control the timing of their menses or to achieve at least temporary amenorrhoea; condoms could be promoted as ending messy post-coital drip or prolonging intercourse. As another example, users may adopt withdrawal or douching to reduce disease, signalling a desire for this attribute even though the users have not selected the contraceptive method (condoms) most classically associated with protection from disease. These choices should not be dismissed as irrational; they can impart valuable information about user preferences. User perspectives research could take a major step in this direction by examining people's motivations for choosing various contraceptive methods, and to consider the range of methods broadly; the results would then form the basis of campaigns to promote fertility regulation.

Thus, there is an important role for the public sector in conducting research in user perspectives. Among other roles, such research is necessary to close the circle between producers and consumers of fertility regulation products and services. Three specific public policy implications of a free-market analysis present themselves. First, publicly supported user research should focus on gaps left in the market: especially publicly developed technologies and programmes

that rely on donated commodities. Second, this research should investigate 'side effects' and other aspects of use that may not feature in the medical literature, or that are not necessarily treated or taken seriously by physicians. The demographic motives behind much of contraceptive development have emphasised efficacy to the detriment of research about other method characteristics. Third, the need for user research is probably greatest for prescription methods, where gatekeepers can distort user signals. Although some methods are available by prescription only in some places but without prescription in others, the need for user perspectives research is greatest in those places where the prescribers do intervene.

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South African Women's Experiences of Contraception and Contraceptive Services

Meg Gready, Barbara Klugman, Makhosazana Xaba, Emelda Boikanyo and Helen Rees

This paper reports on a qualitative study of the experiences of contraception and contraceptive services of 86 women from Gauteng province, South Africa, in groups of women who already met informally, for religious, training, political or work reasons. Apartheid impacted on services most noticeably in the differences between public and private sector services, in relation to privacy and respect and access to a broader range of reproductive and sexual health care. Many women who attended public sector clinics were subjected to provider hostility. Women attending private sector services had more confidence in them. However, in both sectors, the overall quality of contraceptive provision was not markedly different. Women experienced long waiting periods for services, limited information and choice of methods, sometimes inadequate technical competence, and were not asked what they needed or how they felt. These findings contradict a widely held assumption that white women are able to get (in the private sector) substantially more information and greater contraceptive choice than black women. In addition to improvements in these aspects, the women suggested better education about health, contraception and sexuality in schools and communities, and specific changes in the training of health care workers.

CONTRACEPTIVE services should help people to take control of their lives as well as their fertility; services that are centred around keeping women satisfied with and using a method in order to keep the fertility rate down can easily overlook people's needs and human rights.[1] Services need to make a range of contraceptive methods available to allow for the fact that a woman (and a couple) have different needs at different stages of their lives. With more methods, there is more chance for a woman to try different methods, if need be, until she finds one that is best for her health, her specific needs and her fertility priorities.[2]

This paper is about women's experiences of contraception and contraceptive services in South Africa, which forms part of information gathered for a research project investigating wider issues of women's choices in relation to fertility regulation and reproduction. It involved 12 focus group discussions with a total of 86 women from the largely urban Gauteng province of South Africa, between August 1992 and March 1993. We limited the study to this small province to explore how the experiences of women in one area were similar or different, without bringing in the even wider range of services available in rural areas. Moreover, we felt a limited area would give a clearer picture of whether and how apartheid impacted on women's experiences of services.

Gauteng offered considerable diversity. Its inhabitants range from long-term urban dwellers to recent rural immigrants. Because of the Group Areas Act,[3] the towns which comprised Gauteng all had residential areas with associated Black townships, which had inferior basic infrastructure and widespread informal settlements at their outskirts.

Given the nature of the sensitive issues to be discussed, groups of women were recruited who already met informally, for either religious study, technical training, political activities or work functions. Holding discussions with women who were familiar with one another helped to ensure the homogeneity of the groups with respect to age range, race and class background.[4] The groups selected reflected the range

of differences found in Gauteng. They had acquired contraception through a variety of service providers: government family planning clinics, gynaecologists, private general practitioners, chemists, churches and hospitals. Each focus group consisted of 4-11 women.

In the historical context of institutionalised racism in South Africa, racial classification was a key category for choosing the groups of women interviewed, due to differential access to education, housing, and health care based on this classification. Women who are classified differently have had very disparate life experiences and access to different services, although across colour lines, those with money can access services through the private sector. These experiences also lead to dissimilar expectations of services. In addition, racial classification, along with language differences, do to some extent reflect contrasts in upbringing and cultural background, which impact on people's attitudes towards having children and using contraception.[5]

Preparing for and conducting the focus group discussions

We collectively developed and pretested a discussion guide consisting of the major issues and questions we wanted the focus groups to discuss. This guide was translated into the seven different languages in which the groups were conducted. A brief questionnaire for getting a background profile of the women in each group was developed,[6] and included questions about age, education, employment and area of residence, as well as relationship status, childbearing, contraceptive usage and types of services visited.

Most of the groups were reached through contacts of non-government organisations who had been working with women, eg. on development projects, literacy or income-generating projects. Others were reached through religious and personal contacts. *(A profile of the groups is summarised in Table 2.)* We had trouble locating groups of women from certain sectors of the population and had to reschedule some groups many times before they actually happened. One group failed to turn up completely. Once we tried to meet with some secondary school students, but the school would have required them to get parental approval, so we declined. When we interviewed first year medical school students instead, we found that although they had opinions and feelings on many of the issues, none of them were sexually active or had ever used contraception or contraceptive services.

The focus groups took place in private homes, schools, workplaces and religious establishments. Facilitators of similar cultural and linguistic backgrounds to the participants led each group,[7] using the guide in a way that was flexible, but ensured that all areas of interest were covered. Each group gave permission for the discussion to be taped. On average the discussion lasted one to two hours. Most were carried out in the first language of the majority of the group, but women were urged to answer in the language they felt most comfortable with. At the end of the formal discussion any factual questions that had been raised during the discussion were addressed by members of our team. In two of the groups informal information sessions on contraceptive methods were held after the focus group discussion had ended.

The transcriptions of the tapes from each group discussion were checked and corrected against the tape and notes. Themes and meaning were extracted by all team members working together, consulting others when necessary. The findings presented here are based primarily on that analysis.

Results

Choice of methods on offer

In general, in South Africa contraceptive methods on offer are sterilisation, injectables, IUDs and oral contraceptives. *(Table 1)*

As has been found in many other studies, service providers had a lot of control over which contraceptive methods were used by the women we interviewed. *(Table 2)*[10,11]

'R 120.00 for ten minutes, I think they should give you the whole range' (Northern suburbs)

Consistent with the reasonable range of contraceptives available in South Africa, the women in this study had used injectables, pills, IUDs, condoms, female sterilisation and natural family planning. One woman reported using the

Table 1: Attendance for effective contraceptive methods: percentage of total use per method nationally

Contraceptive method	Percentage using	
	1991/2	1992/3
Sterilisation	0.7	0.6
Injectables	67.3	69.7
IUD	0.6	0.6
Oral pill	31.4	29.1

Source: Annual report on family planning statistics 1991/92 and 1992/93. Department of National Health and Population Development, South Africa

diaphragm as well. However, knowledge of condoms, diaphragms and newer types of spermicide such as c-film was so limited, particularly among the African, Coloured and Indian women, as to indicate that even if these methods were available, they were not offered as part of the normal range of contraceptive options. In addition, there was considerable variation in the spectrum of contraceptives offered, depending on whether services were sought in the public or private sector. Women using private services were offered a wider range of contraceptives than those using public services.

However, women attending gynaecologists and GPs indicated that their method mix consisted predominantly of the Pill, IUDs and female sterilisation, with a clear emphasis on a single method: the Pill. Regardless of race, 85 per cent of women attending these doctors had only used those three methods. Condoms, and for one woman an injectable, comprised the remaining 15 per cent among white women and only condoms among Indian women. As two women said:

'If you even walk…into a gynae the first thing the gynae will tell you is the Pill. And he'll tell you what pill as well. He won't tell you "Listen, I've got this, this and that; and this is how this one works and this is how that one works and which one do you want?" He'll tell you which one. And he's probably thinking the best one, but you don't know. You're just going to take that pill.'
(Media worker)

'When I was just married we went along to visit the GP to discuss contraception and the discussion was the Pill and there was no talk about anything else at all. That was that. And it didn't agree with me.'
(Northern suburbs)

In contrast, the vast majority of the women attending public sector family planning clinics were consistently offered injectables as their first option. Several of these women described health workers at these clinics as 'pushing Depo'.

'I go back to Coronation [hospital], and there was another doctor, who asked, "Do you want the injection or do you want [to] sterilise?" '
(Muslim coloured)

Thus, in this study, women serviced by the public sector were offered fewer contraceptive options than women serviced by the private sector. However, irrespective of the type of service provider attended, access to the available methods was often restricted by the health workers themselves. Almost all the women in this study wanted to be offered a greater range of methods.

Information on contraceptives given to the women

'Is it true that Depo is meant for horses?'
(African working-class woman)

While this quote may be an extreme example of the limited nature of information some of the women were given, it is interesting that this woman had had many interactions with health workers.

Inadequate or misunderstood instructions for usage can lead to illogical application of a method, and sometimes unintended or even dangerous results. One woman in the Muslim Coloured group was given three packets of Pills from a clinic; she kept one, gave one to a friend and shared the third packet with the friend. Not surprisingly, they both became pregnant.

'I'd been on the pill and I came off it and I was given one of these gel things to use and I didn't really know how it worked and I fell pregnant. After that I've learned a lot more about it.'
(Northern suburbs)

Table 2. Profile of the Groups

Given Name	Description	Language	Mean Age	No of Women	Types of Services Attended	Contraceptive Methods Used*
Catholic	African working and middle class. Completed high school, 3 full-time professionals.	Setswana	30	6	Catholic church, hospital, government clinic	Billings method (2) Pill + condom (2) Sterilisation (2)
Homeless	White working class, resident refugees. None completed high school, 3 employed, 9 looking for work.	Afrikaans	39	12	Government clinic, GP, hospital	Injectable (1) IUD (1) Sterilisation (2)
Informal settlement	Indian working class. None completed high school, 2 employed, 4 looking for work.	English	36	6	Mobile government clinic, GP	Pill (1) Injectable (2)
Northern suburbs[8]	White middle class. Completed high school, or above, 3 working.	English	43	6	Private gynaecologist	IUD (1) Sterilisation (4)
Muslim Indian	Indian working class. 3 completed high school, 3 working, 1 looking for work.	English	36	6	Chemist, gynaecologist, GP	Condoms (2) Pill (1)
Returnees	African middle class. University degree holders, 7 employed, 6 in professional jobs.	Xhosa Sotho Zulu English	39	7	Hospital, government clinic, GP	Pill (3) IUD (1) Sterilisation (1)
Secretarial students	African working class. 9 completed high school.	Zulu Setswana	24	11	Government clinic, GP	Condoms (1) Pill (3) Injectable (2)
Stokvel club[9]	African middle class. 4 post-secondary qualifications, all working.	Setswana Zulu	38	6	Factory clinic, hospital, government clinic	Condoms (1) Pill (4) Injectable (1)
Medical students	Indian and African middle class.	English Xhosa	17	8	None	None
University teachers	White middle class.	English	25	4	GP, gynaecologist, chemist, friend	Condoms (1) Pill (3)
Muslim Coloured	Coloured working class. 3 completed high school, none working full-time.	Afrikaans	38	7	Hospital, private clinic, chemist	Condoms (1) Sterilisation (2) Vasectomy (1)
Media workers	White middle class professionals, university degrees or technical diplomas.	Afrikaans	31	11	Government clinic, chemist, private gynaecologist	Pill (4) Injectable + spermicidal film (1) IUD (2)

** List does not include women who were not using a method because they were not in a sexual relationship, or were pregnant, trying to get pregnant or post-menopausal, or had infertility problems or hysterectomies.*

Sometimes this lack of information extended to the lack of understanding that a Pill they had been prescribed or an injection they had been given was actually a contraceptive. One woman explained that six weeks after giving birth:

'I was given a prescription, he told me I was on the Pill. I didn't know what it was, I asked the chemist "What is the Pill for?"'
(Homeless)

One woman was confused over how long her sterilisation would last:

'It's now…I hear other people…say they're five months sterilised or they are three months sterilised, well at this moment I don't know [if] the doctor sterilised…me forever and [I] can't get children any more or I am going to get the children or what. I don't know.'
(Muslim Coloured)

Two other women (Muslim Indian and Muslim Coloured) who had been sterilised were under the impression that their sterilisations were reversible. None of these three women wanted any more children; they wanted their sterilisation to be permanent. It is nevertheless disturbing that one in three of the participants in our study who were sterilised were so ill-informed about it.

Information on contraindications and side effects

Although in this study, there were noticeably differing levels of knowledge among the women, with middle-class (particularly white middle-class) women appearing the most informed, almost all participants had not yet received sufficient information about side effects and contraindications of the methods they were using from health workers. Many women were not told in advance about possible side effects from their method of contraception.

Women using clinics and gynaecologists alike experienced problems with the way in which service providers gave information.

'This gynaecologist I went to thought the pill is just wonderful and that there's no side effects, that it is just great, that it's not problematic. And he would say, "Sweetie, have it, enjoy it, have a wonderful sex life, see me in six months." And that was the end of the story.'
(University teacher)

Another woman who attended a gynaecologist for contraception had not yet had children. She had decided from things she had heard that she wanted an IUD. Her gynaecologist was reluctant to give her one, but did not explain why. She was fitted with an IUD:

'The one thing he didn't tell me is that I am going to have or easily get infections. And only later I realised "Oh, it's this loop, OK" and I had it removed and everything. But what I'm trying to say is that if only my gynae, and they are wonderful and everything, if they could just tell you more, because you don't know, and give you the options and tell you all about what they say there is and say I think maybe this is better.'
(Media worker)

If a woman is not informed about potential side effects she may not realise that problems she encounters are a result of that method. Some side effects are just annoying; others can be very serious. It is crucial that all potential users of a method are counselled on what to expect, and how to act regarding side effects they encounter. One woman commented that side effects are not the same for all people and that clinic staff need to be given feedback to understand how contraception is affecting an individual. But when women gave this feedback, their concerns were not taken seriously. This happened to women using clinics and seeing gynaecologists.

'But I got fat on this injection….I went to the clinic and when I told them what this injection was doing to me, they told me that there is nothing like that. So I decided to stop preventing and my weight has been decreasing since I have stopped.'
(Secretarial student)

Thus, regardless of race, class or type of service utilised, the women in this study felt they had been given insufficient information and were vehement that the situation should change. This point was reiterated throughout the discussions and was one of the clearest messages to emerge from this research. These women wanted more information about how methods work, side effects, instructions on using a method, and information about follow-up services.

How women dealt with the lack of information

The major differences amongst the women were the ways in which they dealt with their being inadequately informed. Middle-class women were more likely to have tried to compensate for what they were not told by reading about the subject, an example of the differential impact of having access to resources.

'I remember thinking when I had been on the pill that I knew nothing about it. I should have known how it worked. No doctor ever explained to me "this is how it works; it does this to your body. It does this, this is how it prevents conception." No one ever explained that. I remember having to read about it, to find out how it works.'
(University teacher)

After giving birth in the hospital, a woman was given the option of having a sterilisation before she was discharged:

'But then my problem was that I'm not sure what goes on with this sterilisation. I told her, look, let me go out and read about it and know about it and then I won't find myself doing something which I will regret.'
(Returnee)

'I'd like to be enlightened about all methods, I'd like to know the things they are going to do to my body.'
(Media worker)

'I would tell them about the advantages and disadvantages. And thereafter I would leave it to the individual to choose.'
(Catholic)

'I think the counselling services are incredibly important and have to be much wider based than they are presently.'
(University teacher)

The group who felt that, in general, they had adequate information on how their bodies worked and how to control their fertility were Catholics following the Billings method. Despite statistics that indicate that NFP is a less effective method of contraception than 'modern methods',[9] these women and their partners had been thoroughly trained and spoke knowledgeably about the method. They had not been taught, however, about other methods of contraception.

The Homeless group were an exception. For them, the obvious lack of information imparted to them did not seem to be a major concern. They passively accepted that this was the way things happened, and they had no expectation of anything better.

Extent of providers' knowledge about contraception

Most of the women in our study appeared to trust the knowledge and competence of the health providers at the services that they were currently attending for contraception.

It is not possible to assess on the basis of this study whether the providers encountered by the women themselves had a sufficient level of technical expertise, as they were neither interviewed nor observed. Nonetheless, comments by women of all classes and races, regardless of which services they attended, public or private, clearly suggest problems with the technical expertise of some health workers. Approximately one third of women who had ever used contraception mentioned problems ranging from questionable IUD insertion practices to lack of screening for contraindications.

For example, although some medical barriers to accessing the Pill should be relaxed given the new generation of lower dose pills, it is important that some procedures for checking they are safe for individual women to use need to remain in place. Pharmacists in South Africa have recently been given permission to prescribe the Pill to women, if they undergo training and follow certain screening procedures. We were therefore concerned to hear that one of the women from the informal settlement group had sent her children to the chemist to buy the Pill for her when she had never been on oral contraceptives before and had not had her blood pressure taken or discussed her medical history with the pharmacist. One woman from the University group was given a six-month supply of the Pill by her gynaecologist and then noticed afterwards that they were all past the expiry date.

Several other women had also been given unlimited, repeat prescriptions for the Pill by their gynaecologists or GPs, which meant they

did not have to attend for follow-up visits. Although perceived as convenient by these women (especially those who loathed gynaecological examinations), this is against presently accepted medical practice in South Africa and potentially risky for the women, and some of them realised it.

'I distinctly remember that my card amount had run out already, and I was actually supposed to go back to the doctor, have him check me out again and prescribe another three months' dose or whatever. And they just stopped asking for my card, and in fact I just maybe didn't have the time or the money – the whatever – to go to the gynae that month and didn't, and I went back to the pharmacy and they still gave me my Pill, without checking on the little card whether I already had my six months' supply or one month or whatever ....And I feel that's wrong! I think that's dangerous, there might be women who don't notice or think that side effects are that important and then they continue using the same pill and they'll have thrombosis or whatever you can get from that.'
(Media worker)

One white, middle-class woman questioned her gynaecologist's decision to insert and remove her IUD with an anaesthetic:

'I can remember my doctor saying "You haven't had any children so you'll have to have an anaesthetic to have this inserted, you can't do it any other way." At the time, I never questioned that, I just said, "OK, if that's what has to happen." And then I had an anaesthetic when he removed it. He didn't think I could manage. I didn't question that, I just accepted it, perhaps that was wrong, perhaps I should have asked.... You know in fact when I delivered two children without any drugs at all, I can't believe that I couldn't have survived a loop being inserted.'
(Northern suburbs)

Although anaesthetic is suggested in some extreme cases where an attempt to insert an IUD has failed, normally it is completely unnecessary. However, as using an anaesthetic greatly increases the cost of an IUD insertion, financial motives may well have influenced the gynaecologist's decision, a well-documented problem with regard to unnecessary use of caesarean sections in South Africa.[12]

Although problems such as these were experienced by women attending the spectrum of service providers, most issues regarding competence were raised by the middle-class, white women who attended gynaecologists. This may be because these women tend to be educated enough that they are able to identify (and feel comfortable doing so) inappropriate or unacceptable practices. For instance, they have been sensitised to check expiry dates, and as they are paying for a specialist service, they may expect and demand more from it.

On the other hand, little education about health care has led to low expectations among women in some of the groups in this study. Although working-class women expressed indignation regarding the poor quality of service they received, many of their criticisms centred around the interpersonal behaviour of the health care workers rather than technical competence.

Interpersonal relations between women and providers

Interactions with health care providers were fundamental to the assessment of quality of care that the women identified. Power relations between health professionals and clients is inherently unequal and the perceived (or real) disparity between educational levels increases the gulf between provider and client. The vulnerability that a client feels can either be reduced by a sensitive, information-sharing manner or it can be amplified through abusive exchanges.

While approximately 15 per cent of the women in this study praised the contact they had with their providers, half of the women neither praised nor condemned the way they were treated, and one third reported negative experiences of this nature. The following are some examples of the negative experience of treatment reported.

Behaviour of family planning clinic staff

Unfortunately many women in this study have encountered the latter type of interaction, especially the working-class, African women who were attending government-provided family planning clinics.

'Most of the women who go there, they have a complaint about the workers... who are giving the services, that those people are rude. Those people don't give you the proper test, you know. They don't give you the pill and whenever you ask... ask too many questions you can see that they get irritated by the fact that you are asking too many questions.'
(Returnee)

'Once you get into a situation where a person you are trying to get assistance from is hostile, he doesn't want to hear nothing. How will we even be free to talk about [our] own problems. And anyway how would the same person be able to give advice?'
(Returnee)

'They should not ask such silly questions like, "Why do you have sex in the first place, didn't you know you would become pregnant?" That's what they usually say. That is why I am stressing the need to counsel those nurses who use an accusatory language; [they] are not counselling in the professional sense.'
(Stokvel club)

A woman who received her contraception from a mobile clinic captured it this way:

'[The nurse says,] "Hey don't waste my time, have you come for an injection or what?" or "Out of the way, are you working here!" That's it. No explanation. No nothing. If you ask you are troublesome....They don't take time. They just look at your card and force you to take what was last written on it. Most of the time we have Depo prescribed after having children. So the clinic continues. They push Depo so much that it is as if they get commission for so much Depo given (laughter)....The sisters mishandle people. They will tell you if you ask a question "Look, don't waste my time."'
(Informal settlement)

In response to the question of how the service could be improved at the family planning clinic, one woman suggested this:

'I would treat people as human beings. They must not scream at us.'
(Secretarial student)

Behaviour of gynaecologists

Whereas some women who attended clinics felt that the service was too impersonal, the opposite was true for several women who attended gynaecologists – they felt that the service was too personally invasive and in one case clearly crossed sex lines. Comments by several women using the private sector confirm that demeaning and inappropriate remarks were not confined to public sector providers. One woman described what happened after her hysterectomy:

'I feel I wasn't informed about things I experienced afterwards. In fact I did have some bleeding after the operation for every month. It was almost like having a mini-period. I went back to him and he said, "You know you are imagining it, are you sure that it is not coming from your back passage?" I said "No, nothing is coming from my back passage." He said "Well look, I can't find anything."'
(Northern suburbs)

Another woman received the following response from her gynaecologist when she asked about potential weight gain while taking the Pill:

'If you are going to eat like a pig, you are going to pick up weight.'

While the hostility and impatience of providers in the private sector echoed that of their counterparts in the public sector, it was not impersonal in the same way. In fact, several women using the private sector felt that the provider was personally invasive:

'Mine should be less personal, she asking me why I am not married every time I'm there. "Not married?" while she is giving me a Pap smear.'
(Media worker)

One woman who said she hated going to her gynaecologist explained why:

'He's kind of into this psychology kind of hypnosis, this guy, he likes to ask lots of questions, which I really don't feel like discussing with him. That's really his focus: "How's your sex life?"...He's supposed to be very good, except that he doesn't listen...but he does Pap smears and checks my breasts and checks my vagina and asks me how my sex life is, do I orgasm?

(laughter)....I really don't feel comfortable at all....I just don't answer him...but he really does it all the time I go there. He asks who I am involved with and what kind of person he is and do I masturbate?'
(University teacher)

When the other women in the group expressed indignation at this behaviour, the woman admitted with some embarrassment that she put up with it because she thought all gynaecologists behaved in this manner.

When asked what constitutes a good practitioner, regardless of the type of service provider used, women in this study appeared to value those who gave good reproductive and sexual health care that tries to rectify their health problems.

Ensuring continuity of care

Continuity of care implies that the provider encourages a client to return to the service as often as is necessary for her to receive appropriate care and supplies. The importance of follow-up is to ensure the safety of the woman. It allows her the opportunity for change if she is unhappy with her method. Quality and continuity of care in contraceptive services means a woman's specific needs at a given time in her life can be met and a trusting relationship can be established with a provider.

The likelihood of a woman continuing to attend for care can be measured by the amount of effort emanating from the programme as well as from the individual woman. Service providers tend to utilise formal mechanisms, such as appointment cards and home visits, while a woman's motivation tends to be based on the relationship established between herself and the provider.

In this study, formal mechanisms to ensure continuity of attendance for care were minimal, with just over one third of women having been given appointment cards at the end of the first visit indicating the date to return for supplies or an examination. The distribution of appointment cards did not depend on whether the woman attended private or public services: over 75 per cent of women attending family planning clinics received these cards, as did 66 per cent of those attending gynaecologists, while only 25 per cent of those attending GPs and hospital clinics received them.

Five of the six women with IUDs were given appointment cards. The one who did not receive a card kept her IUD in for three years beyond the date that had been indicated to her verbally. Appointment cards were less frequent among Pill users, with only 41 per cent of women using the Pill getting appointment cards.

All the women who were using an injectable contraceptive were given cards with the date for their next injection. Yet one of them said:

'I am satisfied with the treatment, but there is one thing which annoys me, sometimes they give you a date and they don't come. If they don't come, we go to Mahlakeng. People at Mahlakeng know that we are struggling so they don't chase us away.'
(Informal settlement)

Appointment cards were mostly distributed without explanation of why a specific appointment date was important or necessary. Thus, the women said they did not always go back on the exact date of their next appointment, and then they would often be treated with hostility. One woman felt that the nurses' anger served as a disincentive to come back, rather than creating a supportive environment for follow-up.

'If you miss your appointment, say you were supposed to go on the 22nd and you go on the 23rd, the nursing sister becomes angry with you. If they make an appointment for you to come on a certain date, you must go or else! So people are scared to go to the clinic because of that.'
(Secretarial student)

One of the women's main preconditions for continuing to seek care was establishing a trusting relationship between provider and client:

'I had actually tried two other (doctors) than my original one. And I've just made an appointment to go back to him. Because the actual feeling I had with him was so comfortable, even though I was unhappy after my hysterectomy. I just know that if I go to him, and he's got my whole life there, and he's known me through my two babies and through a hysterectomy, and when I do eventually get into the room with him I feel so relaxed and open up and talk to him.'
(Northern suburbs)

Appropriateness and acceptability of services

Indicators of appropriateness and acceptability of contraceptive services have been defined as follows:

'Clients and non-users perceive that privacy, confidentiality, waiting time, time with provider, schedule and staff are acceptable. Clients and non-users perceive that site's waiting time and exam rooms, cleanliness, water and toilet facilities are acceptable.'[13]

There appeared to be ample access to contraceptive services for almost all of the women in our study. The women did tend to go to doctors or clinics that were convenient either to their work or home, unless they already had an established relationship with a practitioner they trusted – in which case they would travel. Convenience of location becomes a secondary point, however, if quality of service is perceived to be better elsewhere. As a woman from the Stokvel group explained, the clinic in Soshanguve is known to be the best in the area, so people go out of their way to go there.

Waiting time was a universal problem, and raised frequently by the women. Many women mentioned changing to other services and being willing to pay more or travel further to find services with less waiting time. Many clinics only operate on certain days of the week, and several women suggested making services more convenient:

'They should allow people to come at any time, as long as the clinic is still open. Or maybe they should have a special person to attend to such problems every day.'
(Stockvel club)

Whether staff were acceptable, as with the amount of time spent with the provider, in general did not seem to be an issue of concern to the women. It appeared that in most situations the providers were of the same race, if not the same class, as the women who attended their services. The women did wonder whether they would have been treated differently if they were of a different race.

Problems of lack of privacy at contraceptive services were only raised by women in the Informal settlement and Stockvel club groups, in relation to family planning clinics which served black working-class areas. The mobile clinic serving the Informal settlement women displayed a complete lack of regard for privacy. The women were forced to queue in the street, and to get the injection, they were made to expose their buttocks in public.

Several other comments related to age and gender issues. Some women thought it would be better if separate services or service days were set up for men and for younger women. Men, it was suggested, would be less embarrassed about using condoms if they did not have to wait with women in order to acquire them.

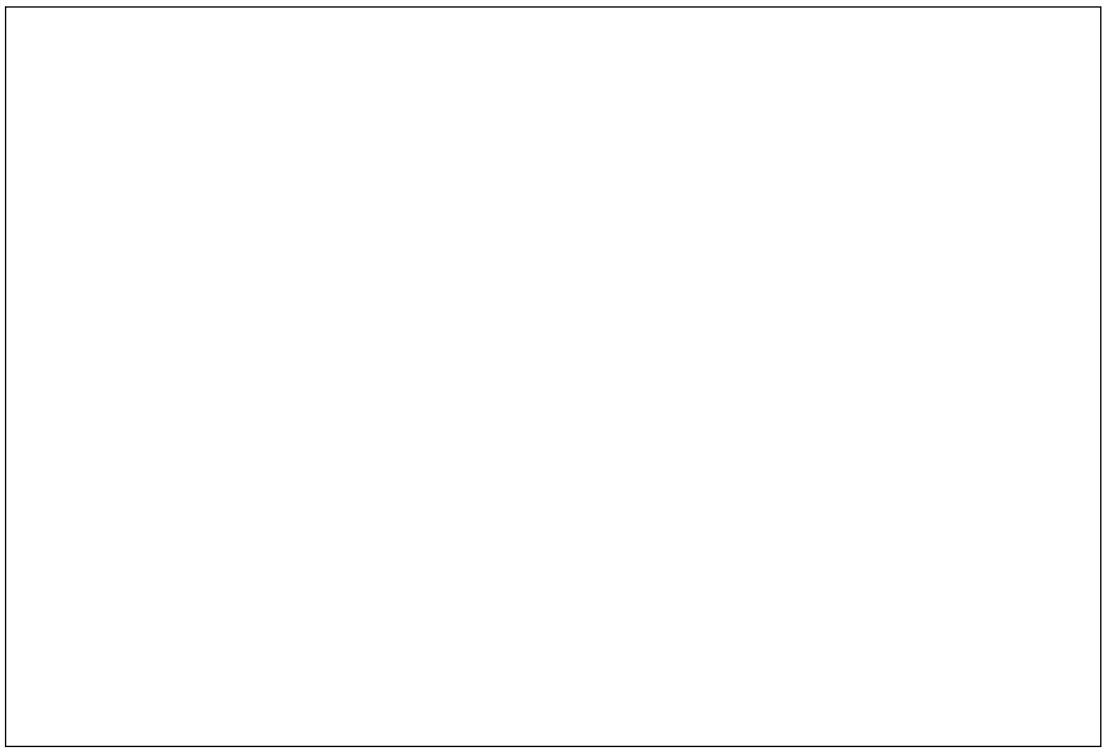
In most cases of age-related difficulties, it has been teenagers who have felt discriminated against to the extent of demanding their own services.[10] In this study, however, some of the older women said they would feel more comfortable if there were youth clinics:

'I think all teenagers should have their own day of going to the clinic for family planning. They should not mix with us because sometimes they laugh at us. They say "Even these old ones engage in such."'
(Stockvel club)

Other reproductive and sexual health services provided

We asked the women whether they were given any examinations by their service provider and also whether their breasts had been checked and whether they had had Pap smears. In general, we found that white women and Indian women who attended gynaecologists and GPs were being given pelvic examinations and regular Pap smears and were being taught to do breast self-examination. One woman from the Northern suburbs group mentioned that her gynaecologist also did a mammogram. In contrast, most African and Coloured women did not appear to be getting Pap smears, breast checks or even pelvic examinations at the family planning clinics they attended.

This disparity between gynaecologists/GPs and family planning clinics is indicative of the serious imbalance in the availability of resources for different sectors of the population. Some women in this study were getting not only



BRETT ELOFF / PANOS PICTURES

contraceptive services but a fairly comprehensive reproductive health service when they went for contraception; indeed, some gynaecologists seemed to provide other reproductive health care better than they did contraception. Those using the public sector services, the majority of the population, were virtually excluded from access to this level of care or resources.

Suggested improvements

The women were asked what, if anything, they would change for the better. Along with the improvements suggested in quality of care, several additional demands emerged: better education about health, contraception and sexuality in schools and communities, and specific changes in training of health care workers.

'The clinic must be clean. It must have a waiting room. Even if they use a caravan, a patient must go inside for examining. We don't want to see what is happening now – people made to undress in the open. We must have proper facilities.'
(Informal settlement)

'If I could know that my doctor is not just concerned when I am sitting in front of him, paying R80, because he is seeing me. But that he'd also follow up on me, just to know where I am heading, what I am doing.'
(Media worker)

'I think family planning could maybe take an active role in schools, a bigger role than they do now....I even think that it would come to a point where they could have a clinic, maybe going to the school, even providing contraception through schools.'
(Northern suburbs)

'Men need to be taught about this operation [vasectomy]...the main worry for men is that if they have this operation done then they wouldn't enjoy sex. Men must just be given a lecture about it. I think that once it has been explained to them they would be willing to go for this operation.'
(Stockvel club)

'I think we should do more things like this, we should have basically a women's group to get

young people into going to the evening sort of talks....I mean, you find some young girls getting married young because they've fallen pregnant, and I think that the community should get together as far as contraception is concerned, and parenthood, and those sort of things.'
(Muslim Indian)

'I feel that there are not enough people who are trained to teach people about family planning... And you find that because so many people go for this service, they are no longer able to reach everybody, like if a person has to explain all these details to everyone, it will be difficult to reach everyone, but if there are more people who are knowledgeable and can come and help, I think it would be better. And it should not only involve women, it should involve everybody to try and find the best method.'
(Catholic)

Conclusions

Access to contraception, for all the women in this study, was not a primary determinant to contraceptive usage. Instead, apartheid impacted on contraceptive services – most noticeably in the differences between the public and the private sector services – in relation to privacy and respect, as well as a broader range of reproductive and sexual health care. Many women who attended the public sector clinics were subjected to health worker hostility and to sterilisation procedures without their full knowledge and/or consent. Concerns about the financial motivations as the primary reason for providing a more comprehensive service in the private sector cannot, however, be ignored either.

From both angles, our findings imply a challenge for the transformation of existing public sector services. At national level, family planning, STD and HIV/AIDS services and maternal and child health care could be combined under one directorate of reproductive and sexual health.[14]

The women who attended private sector contraceptive services had more confidence in them than the women who attended public services. However, both experienced long waiting periods for services, very selective information from providers, limited choice of methods, sometimes inadequate provider competence, and the experience of being patronised by health workers who did not ask them what they needed or how they felt, but told them instead. These findings contradict the widely held assumption that white women (using the private sector) are able to get substantially more information and have greater choices than black women. Though the private sector services differ in some ways, the overall quality of contraceptive provision was not markedly different. This conflicts with the conventional wisdom that private sector care is invariably of better quality. Nor was racial classification *per se* a key element.

This suggests that the primary factor which undermines the quality of care of contraceptive services in South Africa is not the lack of resources which plagues many countries worldwide, but rather the ubiquitous assumption by health workers that they should make decisions on behalf of clients, without providing information, contraceptive method choice or an environment in which women are encouraged to take charge of their fertility.

Consequently, we would suggest that an investigation of health workers' perspectives is essential, that further research and policy development should give priority to understanding the dynamics of health worker/client interactions, and to developing curricula and in-service programmes which promote the role of the health worker in fostering the rights and interests of the client.[14]

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4. All groups were homogeneous with respect to the variables described with two exceptions: one group consisted of both working-class and middle-class women, another had both Indian and Coloured women.
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Attributes of Contraceptive Technology: Women's Preferences in Seven Countries

Rachel Snow, Sandra García, Nazo Kureshy, Ritu Sadana, Sagari Singh, Mercedes Becerra-Valdivia, Star Lancaster, Mamorena Mofokeng, Margaret Hoffman and Iain Aitken

This article presents the results of focus-group discussions with 576 women from seven countries regarding their preferences for different attributes of contraceptive technology. The women were married, with a mean age of 32 and a mean of three children, and living in one or more poor urban neighbourhoods in Cambodia, India, Mexico, Pakistan, Peru, South Africa and the USA. Two striking similarities across sites were the extent of women's strongly expressed need for improved, long-acting, highly effective (yet reversible) methods of contraception and their overall dissatisfaction with available methods, even among women who had used a method for many years. The women also emphasised the importance of reversibility, and expressed serious dissatisfaction with side effects and bleeding disturbances, even though these were often tolerated as a trade-off for other characteristics. Reactions to and interest in barrier methods differed across sites, with female barriers being unfamiliar to many. Reactions also differed greatly regarding the need to contracept secretly. The findings, though preliminary, point to the need for increased contraceptive technology development and further research on the attributes that poor women want in a contraceptive.

EXISTING contraceptive technologies are inadequate to meet current demand for fertility regulation. The high incidence of unplanned pregnancies worldwide, especially in countries where existing contraceptives are readily available, testify to the fact that new and different technologies may be needed. In addition, high rates of method discontinuation, the high incidence of discomforting side effects with many methods, and public distrust of both family planning providers and contraceptive scientists[1-3] all testify to the need for more acceptable methods of contraception.

Novel ideas for new technologies result from two complementary streams: a basic scientific sector that uncovers new biologic opportunities, and a market research sector that uncovers gaps in public need. In the contraceptive research field of the 1990s, both streams are weak. A once active basic research sector has flagged in the last decade, and the potential of market research for new product development has largely escaped the public sector contraceptive research community. Yet if basic research funding fails to increase, market research may be increasingly vital to guide investment in product development.

Women's health advocates have lobbied for greater attention to the health and social realities of poor women, a position endorsed at the International Conference on Population and Development at Cairo in 1995.[4] Documentation of contraceptive coercion and abuse, misuse of methods and poor service quality have given sobering testimony to the need to examine overt and covert goals of population programmes, and to develop more women-centred initiatives.[3,5-7] Increased research attention to the contraceptive preferences of poor women and men should be a hallmark of population science and service, in order to provide products that are more acceptable.

In the absence of adequate market research among poor women, debate over what women want is too often based on political perspectives[8,9] or the behaviour of contraceptive users.[10-12] The former lack impartial validation, while the latter are fraught with selection bias. Users of any given method have predisposing preferences for the method,[13] and their likes and

dislikes cannot adequately represent the concerns of the non-user majority.

Previous efforts to assess poor women's preferences regarding contraception include those of Folch-Lyon et al in the late 1970s, who undertook a qualitative and survey investigation of men's and women's contraceptive preferences in Mexico,[14] and the World Health Organization Task Force on Acceptability Research, who carried out several cross-cultural studies, including a 14-culture study of women's perspectives on menstrual bleeding.[15-16] Recently there have been numerous qualitative studies of the complex motivations for use or non-use of methods in poor communities,[17,18] and increased efforts to market-test specific products.[19,20] Further efforts to improve and expand such research are warranted.

The study reported here was a pilot project to investigate the preferences of poor, urban women, for different attributes of contraceptive technology in six developing countries and the USA. Forthcoming country case-studies provide more detailed information on women's preferences at each regional site.

Methods

This study was a cross-national focus-group study undertaken in the following sites: Phnom Penh and Kandal (Cambodia); Udaipur and New Delhi (India); Ciudad (Cd) Juarez (Mexico); Karachi (Pakistan); Lima (Peru); Cape Town (South Africa); and suburban and inner-city Boston (USA).

The target population were poor, urban women currently married or living with a partner, of relatively low parity (three or fewer children), and less than 35 years of age. Urban women were targeted in order to increase the likelihood that they would have greater experience and/or exposure to contraceptive options, greater familiarity with technology in general, and potentially be more at ease with the focus-group process. However, it was neither assumed nor intended that the participants would necessarily be current users of contraception. 'Neighbourhood of residence' was used as the proxy for socio-economic status.[21] One site in the USA targeted upper-middle class women as a 'contrast' group (suburban Boston). In some sites, investigators also conducted additional 'contrast' focus-group discussions among peri-urban or rural women.

Focus-group discussions typically lasted for 90 minutes to two hours. In all sites the women in the focus groups were usually familiar with one another, as participants were located through convenience sampling. In Phnom Penh/Kandal, Karachi, Cape Town and Cd Juarez participants were solicited through women's health services that included family planning. In Lima, Udaipur/New Delhi and Boston, solicitations were made through social welfare or neighbourhood contacts unrelated to health or family planning services.

All of the country investigators (who were all in residence at Harvard University at the time) were given focus-group training as a group. A common moderator's guide was developed and pre-tested through a collective process in which all of them also participated. The moderator's guide consisted of five principal sections for soliciting the following:

1) background characteristics of participants
2) a poll for identifying which contraceptive methods were known and/or had been used
3) discussion of likes and dislikes among known methods
4) design of an ideal method
5) balanced description of two unfamiliar method categories: discussion of likes and dislikes.

For each category of contraceptive method (orals, injectables, barriers, etc) two separate sets of questions were provided: one in the event that the method was known by the majority of participants and the other if the method was unfamiliar. After the initial poll identifying which methods were known, the moderator selected the appropriate sets of questions. In the majority of cases oral pills, IUDs, injectables and male condoms were known; Norplant and barriers other than the male condom were largely unfamiliar.

Transcription and translation

Verbatim transcriptions were prepared from each focus-group discussion. All transcriptions were translated into English to facilitate teamwork for cross-validation of interpretative analysis, and comparative analysis. The majority of translations were made directly at the time of

transcription; one was made after verbatim transcription. The quality of translations was evaluated by several methods (including repeat translation and back translation), and by someone other than the country investigator.[22]

Identification of core themes and validation

After initial review of the transcripts, a core list of themes was collectively drawn up. The themes reflect those anticipated in the objectives of the study, modified in light of additional issues that arose directly from the transcripts.

Each field investigator was then responsible for colour-marking all transcripts for her country. Wherever a given theme was addressed in the transcripts, a corresponding colour-code was indicated in the margin. Using the colour-coded transcripts, two investigators then prepared independent interpretative summaries of each theme. These summaries were kept confidential until completed, and then compared for agreement or disparities. Transcripts were reviewed again to reconcile disparities, and on a few occasions, a third reader was asked to repeat the exercise until agreement was reached. This process provided a measure of cross-validation for the interpretations.

Quotations have been used in this paper when they represent a clear majority opinion (or a minority position as noted). Provocative, but unrepresentative quotes have not been included.

Findings

A total of 576 women participated in the study, ranging from a low of 40 women in Udaipur/New Delhi, to a high of 122 in Karachi. The average age of participants was 32, but the age range was broader than originally intended. In most sites the participants were in their late teens to mid-40s, but it did not prove feasible to restrict discussions to younger women in all sites, and occasionally older women participated. Similarly, while the participants had an average of three living children, in some sites women of higher parity were also included. (*Table 1*)

Table 1. Characteristics of Participants

Location	Number of women	Mean age (range)	Mean number of living children
Phnom Penh/Kandal	95	31 (18-43)	3.5
Udaipur/New Delhi	40	30 (20-45)	2.8
Ciudad Juarez	87	34 (15-78)	2.9
Karachi	122	26 (17-45)	3.3
Lima	75	37 (20-58)	3.4
Boston	61	35 (19-47)	1.9
Cape Town	96	28	3.0

Contraceptive prevalence varied greatly among the different research sites. In Boston, the majority of participants were experienced contraceptors, likewise more than 90 per cent of the participants in Cape Town had used injectable contraceptives at one time or another. In Cd Juarez and Lima, knowledge of methods was high, and some of the participants had experience with modern methods. In Karachi, Udaipur/New Delhi and Phnom Penh/Kandal both knowledge and use were low; women in Phnom Penh/Kandal generally lack access to methods, while women in Karachi and Udaipur/New Delhi had a variety of reasons for low contraceptive use.

Dissatisfaction with existing methods

At all sites, a majority of women expressed substantial dissatisfaction with the available methods of modern contraception. Both users and non-users emphasised that available methods too often cause physical discomfort, are cumbersome to use, or do not work effectively. As one woman in Udaipur/New Delhi expressed it, 'none of these [methods] is worth using'. Lengthy discussion of side effects in all sites underscored indications that use of a method, even sustained use over many years, cannot be regarded as a sign of satisfaction with the method. Not only are many women using methods they find disagreeable, but for some the motivation to avoid pregnancy is so powerful that they are tolerating substantial discomfort in order to contracept.

Importance of effectiveness

Contraceptive effectiveness was highly valued by participants in all sites. Typically, this was the

principal reason for choosing a method, the first question raised about unknown methods ('Is it effective?'), and the first attribute listed for an ideal method of contraception. In most sites, effectiveness was the attribute determining whether a method was 'good' or not.

In inner-city Boston, effective protection against sexually transmissible infections (STIs) was of equivalent or greater value than contraceptive effectiveness: 'I care about being pregnant but I would rather get pregnant than get AIDS.' In Karachi, when asked to describe attributes of an ideal method, many women gave equal weight to health concerns and effectiveness, describing both in the same initial response.

Women frequently described the trade-offs they made to use highly effective methods. 'There is pain in these methods but at least there is no danger that the woman will conceive' (Karachi). 'Even if we feel bad (eg. hot) while using the injection, we use it because it is effective' (Phnom Penh/Kandal). In Udaipur/New Delhi, women were reluctant to inconvenience themselves vis à vis their health (especially bleeding disturbances), if they were not guaranteed 100 per cent effectiveness.

The importance attributed to method effectiveness was also evident in the repeated expressions of dismay over the ineffectiveness of available methods. Among women in Udaipur/New Delhi the discussions highlighted the very low confidence that women have in the effectiveness of any of the available, temporary modern methods. In Phnom Penh/Kandal there was also much dismay over the ineffectiveness of available methods, yet many women differentiated between ineffectiveness caused by problems with the technology (eg. displacement of IUD), the interaction of the technology with their body (eg. strength of injection), or user failure (eg. missed pills). Women in many of the country sites were doubtful of the effectiveness of IUDs, barrier or rhythm methods. According to women in Cd Juarez only 'very punctual women' can use rhythm.

When discussing effectiveness in the abstract, in relation to an ideal or new method, women anchored their expectations in the modern methods they knew. In Cd Juarez, for example, the women's initial interest in barrier methods dissipated when they heard that they were less effective than the pill or IUD. In Udaipur/New Delhi, sterilisation was the standard for effectiveness. In Phnom Penh/Kandal, where women had the least experience with effective modern methods, they were least critical of new, potentially less effective methods like female barriers. Explaining the need for effective methods, women described the health and social consequences of unwanted pregnancy. Women in Phnom Penh/Kandal were 'always afraid of having pregnancy'; either 'we use an effective method or try to raise more children with a limited income and old age and weak health.' In Lima, a woman felt that new, better methods 'will have to be effective…for our kids will also experience the economic crisis….It's not a time to have many children.'

Length of effectiveness

There was a striking uniformity of interest in methods providing a long duration of action, a finding which may well reflect the age (average 32 years) and parity (average three) of the participants. In response to questions probing what would be a preferred length of method effectiveness, discussions were dominated by answers such as 'two to four years', 'at least three years', 'five years', 'three to five years' or 'six years' of protection, with three to five years being the most common interval. In Karachi, Phnom Penh/Kandal and Lima a preference for long-acting methods was the majority opinion in almost every focus-group discussion – the persistent interest in long-term protection could not have been more striking. In Karachi, one of the most important features of a method was that it should be long-lasting – allowing women 'time to be free'. Women's interest in long intervals of protection persisted across different types of methods. If injectables could allow a regular, monthly cycle, then women preferred that they lasted for six months, one year or longer. Referring to Norplant as the five-year injection, women commented positively on its length of action. Complaining about the daily regimen of oral pill taking, women suggested pills be improved to last one month, three to four months or longer.

In Lima, preference for long-acting methods was particularly evident in discussions of an ideal method. In this regard, Norplant's five-year effectiveness appealed to many women. In Phnom Penh/Kandal almost all higher parity

women wanted to wait three to five years before having their next child, but there was an interesting confluence of three to five years or 'forever'. Almost all higher parity women in Phnom Penh/Kandal wanted to wait three to five years before the birth of their next child, yet these women also referred to the fact that they might be too old by then to have any more children. They stated that five years was an ideal interval, and at the same time declared that they '…never want to be pregnant again.'

In Cd Juarez, no majority preferences for length of effectiveness were evident, but all things being equal, longer was better. Women commented that longer was especially better for older women who might not yet be ready for the finality of a tubal ligation. Likewise in Udaipur/New Delhi, a preferred length of effectiveness was not easily gleaned from the discussions, but when mentioned it was similar to that stated in the other sites, between three and four years. 'The good thing is that if there is something for three to four years,' and '…I think I would prefer the IUD, especially if it suits you….Also it is available for three years *[sic]*, and that is good.'

It was possible to distinguish the opinions of younger versus older women in Karachi, and low parity versus high parity women in Phnom Penh/Kandal regarding preferred lengths of effectiveness. In Karachi, the minimum preferred duration mentioned by younger women was six months, while for older women it was two years. Shorter durations of six months, one year or two years were mentioned as more appropriate for younger women. As expected, those who had completed their family were more comfortable with longer durations, such as five years. In Phnom Penh/Kandal, lower parity women, who were generally younger, were less certain about how long a method should be effective. Typically, lower parity women were more quiet, and reluctant to talk about birth spacing in great detail.

Women in Boston were unique in expressing a strong preference for methods that would have a flexible time-frame; this was especially evident among upper-middle class suburban women. These women mentioned that a longer period of effectiveness was appropriate for younger, unmarried women or older women with completed families. However, most were unwilling to use a method that was not easily reversible or that lasted more than three months. Norplant was discussed in two groups, but held no appeal for these women. Rather, individual control was important. Asked how long an ideal contraceptive should last, a representative response was 'as long as you want.'

Among inner-city Boston women, there was a similar interest in having a 'menu' of different methods, with different intervals. However, a significant minority found a five-year implant, or a three to five year interval, appealing as long as the method was reversible.

In several sites women spoke of their preferred length of effectiveness in terms of desired child spacing or the time needed for a child to grow up. 'I want to space one child to another….and let my child grow strong for four to five years, then another one…' (Phnom Penh/Kandal). Some women in Karachi spoke about a three-year gap as their preferred interval because it allowed 'breast-feeding for two years and one more year needed until the child is older.'

Reversibility

The common interest in three to five years of contraceptive action was frequently conditioned on whether the method was reversible. Women in Udaipur/New Delhi, Karachi, Lima, Cd Juarez, and inner-city Boston made spontaneous distinctions between reversible and non-reversible methods (namely injectables), preferring shorter intervals for injectables.

In Karachi, some women expressed their discomfort with a five-year duration for non-reversible methods in terms related to child death. Given that a child might die, and the woman or man might want another child, three years was a more feasible duration. For other women, secrecy also factored into the preferred time for duration of a method. These women stated that a duration of more than two years was problematic, since they would not be able to 'fool' their husbands for that long. As one woman explained, 'If it is two or two and a half years, I can say "I don't know, it is just natural".'

In the other sites, women preferred even shorter intervals for injectables, and this was frequently attributed to concern over negative side effects. 'For a year or six months…it is a problem, because if it causes you problems then for six months you are affected' or '…the three-month one [injection] is good. We can see how

it works once. If in three months it harms you, then you can stop it. For six months then you have to wait a long time…' (Udaipur/New Delhi). Some women in Lima were positive about longer-term injectables, but just as many mentioned advantages to shorter intervals: 'If it doesn't go well, then it's out of your body sooner.' Also in Karachi and Lima, it was mentioned that the monthly injections help women remember when to go back to the clinic.

In Cd Juarez, women were most familiar with one- and three-month injectables, and preferred the monthly injectable, principally because it allows a monthly bleed. Women's preference for monthly injectables was also linked to their experience and perceptions of side effects. Women reported that injections with a longer duration of action, eg. Depo Provera (DMPA), were associated with many more negative side effects and symptoms, and these were attributed to the 'stronger drug' needed for a longer duration of action. The shorter, once-a-month injectables were described as lighter on the body. Extrapolating from their experiences with DMPA versus monthly injectables, women presumed that longer-acting injectables (six months or yearly) would necessarily be more powerful and make them more sick.

A similar perception was voiced by women in inner-city Boston. Most wanted shorter injectables (three to six months rather than one year), as they believed that a longer lasting injection necessarily involved more chemicals, and therefore might cause their bodies more harm. They would consider a six-month injectable, but they wanted reassurance that the chemicals 'suited' them before committing themselves to the method.

Women in Cape Town did not discuss a desirable length of effectiveness in the abstract. However, they described a preference for methods that would allow them to make less frequent visits to the health centre. This was an important factor in the popularity of DMPA, because until recently providers have meted out oral pills on a monthly basis.

Importance of a rapid and predictable return of fertility

The site at which there was the greatest concern about return to fertility after stopping a method was Cape Town, where more than 90 per cent of the women had experienced DMPA and several women complained of personal difficulties conceiving after discontinuing the method. Women referred to the need for 'having the womb cleaned' by means of dilatation and curettage (D&C) or via oral contraceptives in order to regain fertility. In Cd Juarez, there were also reports of individual difficulties conceiving after injectable or oral pill use, and significant general concern over this problem.

In suburban Boston and Cd Juarez women felt that the return of fertility after stopping a method should be close to immediate. Despite this preference, women in suburban and inner-city Boston said that a delay of no more than three months could be acceptable.

In Lima and Karachi women were more tolerant of a delayed return in fertility after discontinuing a method, but for different reasons. In Lima (as in Cape Town), women wanted a delay to allow the system to eliminate drug-based methods, allowing them to become 'clean' before a child was conceived. In Karachi most women, whether young or old, expressed little if any concern about a quick or predictable return of fertility, and indicated that delays of two to six months were acceptable. The majority of women said they would be pleased if a few more months passed, since this would give them a 'little more time' in their spacing. One woman said: 'If you conceive too soon, it won't be fun.' In Phnom Penh/Kandal few women expressed concern over return of fertility after using contraception. Likewise, discussion in Udaipur/New Delhi was limited to the mention of using D&C to clean the body after contraception, and before conceiving another child.

Importance of secrecy/privacy

There were stark regional contrasts in the extent to which women valued having a method that would allow them to contracept secretly. Participants in Lima never raised this attribute spontaneously, and when it was raised by the moderator most rejected it as an idea, expressing surprise that women would want or need to contracept secretly. Likewise, the majority of women in Cape Town and Phnom Penh/Kandal did not have to keep contraception a secret from their husbands, because partners appreciated

the need for family planning. Women in Phnom Penh/Kandal emphasised that when couples make such decisions jointly, everyone benefits. However, among the contrast groups conducted among rural women in Phnom Penh/Kandal there was some interest in keeping such matters hidden from watchful neighbours, because they might later blame a woman if she experienced any side effects from contraception.

In the USA, women were not concerned with secrecy for themselves, but appreciated the fact that young (especially teenage) women may need to contracept secretly. In Cd Juarez, interest in secrecy was evident in fewer than half the focus groups (four of ten), and was exclusively related to partners. However, when the need for secrecy was discussed, women rarely described a personal need for secrecy. Rather, they would say that 'other women' might have this need. In general, women explained that 'nowadays men are becoming more supportive of their wives', sometimes purchasing pills or other contraceptives.

In Udaipur/New Delhi, secrecy was of utmost importance to the majority of women in the focus groups. Among women living in joint families, secrecy was often necessary with husbands and other family members. There was much discussion about the lack of domestic privacy for hiding contraceptive materials, difficulties accounting for travel time to clinics, and hiding any abnormalities in bleeding. Significant concern over method-related bleeding disturbances among this group was very much related to their need to contracept secretly; no bleeding disturbances were acceptable to the women precisely because bleeding abnormalities could not be hidden from husbands or in-laws (see also below).

Participants in Karachi also valued methods that could be used secretly, but this appeared most important for women living in peri-urban areas, and among younger women. As in Udaipur/New Delhi, women needed to hide contraception not only from their husbands, but also from other family members. Women in Udaipur/New Delhi and Karachi both emphasised their difficulties in obtaining methods secretly, and this contributed to their interest in longer-acting methods. 'But the six-month to one-year (injection) is good too because we don't have to go to the doctor all the time…' (Udaipur/New Delhi).

In a minority of discussions in all sites women mentioned the need to hide contraceptive paraphernalia from children.

Tolerance for amenorrhoea

Women were largely dismayed by the prospect of a contraceptive method causing amenorrhoea, but the reasons for their dismay varied by region. In Phnom Penh/Kandal women were principally concerned with perceived health and beauty effects, emphasising that failure to bleed would result in dark, unattractive skin. Health concerns about amenorrhoea were linked with concern that hormonal methods prevent pregnancy by generating heat, drying the body and thus disrupting the body's natural balance: symptoms they associated with this included fatigue, headaches, burning in the limbs, and if prolonged, an eventual deterioration of health. Although some women tolerated amenorrhoea if it was not accompanied by excess heat, most feared bleeding disturbances. Women in Phnom Penh/Kandal also complained that bleeding problems added to the cost of methods, and unlike richer women they could not afford the medical expenses required for treating this side effect.

Women in Cape Town were very familiar with amenorrhoea given the widespread use of DMPA, and they described it as a major problem with the method. Amenorrhoea was said to result in women constantly 'smelling blood', and feeling it rise up their spinal cord to cause nausea, headache and backache. It was also associated with tiredness, irritability, body cramps, changes in pigmentation and increased sensitivity of the skin. Women in Lima were also concerned about negative health effects associated with amenorrhoea and insisted on the importance of regular menstrual bleeding.

Most women in Udaipur/New Delhi were intolerant of amenorrhoea because it would arouse suspicion among husbands and family members, making it even more difficult to contracept secretly. Women in Udaipur/New Delhi were also concerned about both the negative health effects and the fear of pregnancy associated with amenorrhoea, and these were also the principal concerns of women in Karachi. Many women in both Udaipur/New Delhi and Karachi thought that amenorrhoea caused

poor eyesight, bloating, and general ill-health. Women in Karachi indicated that until the focus-group discussions, they had never known that amenorrhoea was an expected side effect of injectable contraceptives.

Women in Cd Juarez were principally concerned with amenorrhoea because they feared it indicated pregnancy. This fear persisted despite the fact that providers had warned them of this likely side effect. The fear of unwanted pregnancy was so serious that women reported paying for multiple pregnancy tests while using an injectable.

Women in both the inner-city and suburban sites of Boston had similar reactions to amenorrhoea. They were initially positive about having no periods, and joked about how great that would be. Over the course of the discussion, however, they changed their minds, expressing distrust and concern over potential negative health effects associated with a lack of regular bleeding.

Tolerance for frequent or heavy bleeding

Women in all sites were intolerant of heavy bleeding, and associated it with extreme fatigue, ill-health, and inability to work or carry out domestic chores. Frequent bleeding not associated with heavy flow appeared the most tolerable bleeding disturbance for many women in the USA and Phnom Penh/Kandal, but women from Cd Juarez, Karachi and Udaipur/New Delhi seemed to find all bleeding disturbances equally problematic.

For women in Udaipur/New Delhi, problems with frequent bleeding were discussed in terms related to their domestic and family relations. If they were trying to contracept secretly frequent bleeding would be easily noticed by husbands and other family members, who would recommend medical treatment. Even in situations where husbands were agreeable about contraception, the women emphasised that cultural taboos against food preparation during bleeding would require husbands or others to cook more often than was acceptable. Furthermore, women in Udaipur/New Delhi, and a few women in Karachi, explicitly indicated that heavy or frequent bleeding would be sexually intolerable for husbands.

Women in Lima did not explicitly distinguish frequent bleeding from other menstrual disturbances, and no obvious majority opinions were evident. Discussion of frequent/heavy bleeding did not arise in Cape Town.

Reactions to barrier methods

Women in most of the sites were concerned about the contraceptive effectiveness of barrier methods, and the recurrent costs required for regular use. In several sites, women emphasised that partner cooperation for using barrier methods was impossible.

Women in the USA had the most experience with barrier methods. Women in the upper-middle class suburb had considerable experience with diaphragms and male condoms, and had heard of the female condom. They found the diaphragm convenient, and especially liked the fact that by using it they could avoid the systemic effects of other methods and the inconvenience of medical appointments. They did, however, point out that these methods were messy, and the diaphragm gave some women urinary tract infections.

Among women in inner-city Boston use of male condoms was widespread, despite common experiences of breakage, the method feeling 'fake', 'ruining the mood' and being resisted by men. One woman noted: 'I love the man who invented this.' Fearful of AIDS, they used condoms often, and sometimes in conjunction with other methods of contraception. They also noted that they liked having something for which they did not need to see a doctor. Diaphragms were not popular with this group; diaphragms were 'too complicated,' they did not like having to touch themselves, and they thought it required numerous clinic visits for fittings.

Women in Phnom Penh/Kandal had no prior experience with barrier methods, but they expressed some interest in trying them, and they appreciated the protection that such methods would offer against STIs. Their desire to try the diaphragm, the sponge or the female condom overrode their numerous concerns about recurrent costs, and seemed to reflect their willingness to try whatever new contraceptives they could obtain.

Likewise, women in Lima expressed an interest in trying new barrier methods. They had some knowledge of male condoms and suppositories, and were vocal about both the

necessity of making men more responsible to use condoms, and also having methods that women could use to protect themselves from infection. They had some concerns that a re-usable method (eg. the diaphragm) might actually cause vaginal infections, as it could collect dust when not in use. When given the opportunity to handle different barriers (this occurred in three of eight groups), women seemed to prefer the female condom to the diaphragm, saying that the rim of the diaphragm felt too hard.

Women in Cd Juarez had some limited knowledge and experience with male condoms and suppository tablets. Women were aware of STIs, and the fact that barrier methods could offer some protection against these infections. Nonetheless, such awareness did not prompt an interest in using barriers. Their disinterest was attributable to concern about low contraceptive effectiveness and lack of partner cooperation. Initial interest in unfamiliar barriers like the diaphragm dissipated when women were informed that these methods were less effective than pills or IUDs; the discussion quickly shifted to other topics. Very few women indicated that their husbands used condoms, but these few expressed gratitude that they were 'taken care of', ie. that their partners were willing to share the responsibility for contraception. However, these same women said they could not rely on their partners to use condoms regularly.

Women in Cape Town knew of the male condom, but only one woman had experience using the method. There was general agreement that men were uncooperative about using condoms because condoms interfere with sexual pleasure. The women were afraid of contracting STIs, but had difficulty negotiating safer sex with their partners. In the words of one woman, who was supported by the group: 'Men are like dogs, they sleep around and then bring diseases home to us, we need something to protect ourselves from diseases.' Female barrier methods were not known to the Cape Town women, and were therefore not discussed.

Many women in Karachi and Udaipur/New Delhi knew of the male condom, but experience was limited: in Karachi approximately one in four women had ever used a condom; in Udaipur/New Delhi only two or three women in total reported such experience. Overall, women in these two sites were extremely negative about barrier methods because partner cooperation was not feasible. In most of the Udaipur/New Delhi focus groups, barriers other than the male condom were not discussed.

In Karachi, women explained that they had no time or opportunity to plan for sex, or to insert something vaginally prior to sex. Living in cramped quarters with common sleeping rooms further hindered any chance to use methods that would require insertion or application at the time of sex. Women in Karachi also expressed reluctance to use a method that would make them responsible for contraceptive failure, especially if the method were not 100 per cent efficacious. Hearing about the diaphragm, women joked about it moving inside the body, and the cream making it even more slippery. One woman asked: '...and if it moves, what will happen? Will the woman go running to the doctor?' Women in Karachi did not appear aware of the link between sexual intercourse and STIs, and explanations that barrier methods protect against STIs did not resonate with them.

Notably, women in Karachi never expressed any resistance to barrier methods because they required touching the genitals, but this was raised as a disincentive in three groups in Cd Juarez and one group in inner-city Boston.

Discussion

It is important to emphasise that the qualitative nature of this study limits the generalisability of the findings. Our results do not emerge from random sampling, and can not be taken to represent the opinions of other women in the same region(s) or elsewhere. Furthermore, the participants were drawn from a particular cohort, with characteristics that very likely influence their expressed preferences. These include the fact that 98 per cent of the participants were married; almost all were parous; they had on average three living children; and the majority were in their early 30s.

Bearing these limitations in mind, the results of the focus-group discussions reveal several common perspectives and preferences among the participants, and some points on which their views were very different. One perspective common to a majority of the discussions was the extent of women's overall dissatisfaction with available methods of contraception. A corollary

to this was that use of a given method, even regular use over many years, cannot be interpreted to imply satisfaction with the method. Rather, the discussions suggest that there may be significant numbers of women who are tolerating unwanted side effects and attributes of modern birth control in order to avoid unwanted pregnancy. Presumptions that the contraceptive market may be 'saturated' with acceptable products, and that new, better methods will be unlikely to attract sufficient numbers of users to profit investors may be unfounded.

Among other common perspectives expressed in these discussions, there was very strong interest in high method effectiveness, a widespread desire for methods that would offer protection (albeit reversible) for three to five years, and consistent evidence that menstrual bleeding disturbances (including amenorrhoea) were a serious drawback for the women. Response to barrier methods was mixed, but the discussions highlighted numerous social and method-related factors that hindered enthusiasm for these methods.

The importance given to high method effectiveness in these discussions is not wholly consistent with findings from earlier preference research by Folch-Lyon et al in Mexico.[14] In a survey of more than 2000 men and women, the majority ranked both effectiveness and safety as key attributes in choosing a contraceptive, yet most ranked safety first and effectiveness second; only 20 per cent of their sample considered effectiveness more important than safety. The qualitative nature of our study precludes enumeration and precise ranking of specific attributes. Nonetheless, while many women emphasised the importance of side effects (especially bleeding or problems that compromised their ability to work), fears of serious health effects (ie. cancer and deformities) reported in the Folch-Lyon study were not prominent in our discussions. These differences may reflect the different methodologies employed in the two studies, or possibly in the case of Mexico, they may reflect increased confidence in the safety of contraception. An upcoming survey planned for Mexico will be helpful in illuminating the basis of these disparities.

The three to five year contraceptive interval that many participants wanted is notably longer than the average birth interval (~30 months) in developing countries. This may reflect, in part, that our participants were generally in their low 30s with approximately three live children. Discussions with younger women might well have elicited interest in shorter lengths of duration, and this is suggested in the two sites where it was possible to distinguish between the opinions of younger and older participants. In Karachi, younger women mentioned a minimum duration of six months while for older women the minimum was two years. In Phnom Penh/Kandal, younger women were more ambiguous than older women about a desired length of effectiveness.

Consumer interest in a long duration of contraceptive action was one conclusion of an extensive review of clinical and qualitative studies in 1984,[23] and a WHO study from 1980[15] found some evidence that longer-acting methods were more popular in rural than urban areas. Other than these reports, we found little prior research on women's preferences regarding the length of the contraceptive interval. Given that most women in our study willingly debated their interests in different intervals for a given method (eg. one-month, three-month, six-month or one-year injectables), such questions may be amenable to systematic research.

Feminist assertions that women want methods that are easily reversible[2,24] are largely borne out by our study. However, we were surprised by the far-ranging preferences women stated regarding the acceptable length of a non-reversible interval (ie. the length of time during which a method cannot be reversed). While many women in suburban Boston wanted near-immediate reversibility, others were at ease with a three-month delay, and women in Karachi felt that three years was an acceptable maximum for a method to be non-reversible. In several sites (particularly Karachi) concern over reversibility was eclipsed by the desire for long-acting effective contraception, and the need (as in Udaipur/New Delhi) to limit the frequency of covert visits to providers.

Women's negative reactions to disturbances in menstrual bleeding have been abundantly reported in clinical studies on specific methods and the WHO multi-cultural study of women's attitudes to menstruation.[16,25-27] Fear of retained blood, weakness, poor eyesight and pregnancy which arose in these discussions have all been described previously. A new observation was the

extent to which women's intolerance for bleeding disturbances in Udaipur/New Delhi was linked to their need for secrecy.

Women in Phnom Penh/Kandal gave some support to previous findings that good counselling improves women's tolerance for method-related bleeding disturbances. However, these focus-group discussions emphasised that while many women continue to use methods that cause amenorrhoea, such sustained use may be more an indication of tolerance than satisfaction. This was most blatantly illustrated in Cape Town, where women were using DMPA and regarded it as the best method available, yet complained strongly about amenorrhoea. On this point, we very much agree with Severy and Thapa[28] that contraceptive acceptability is best defined as a balance of preferences and tolerances.

The discussions regarding barrier methods in this study were cause both for hope and concern. It is encouraging to note that women in Lima, Phnom Penh/Kandal and Cape Town were interested in greater access and opportunity to try female barriers, despite concerns over recurrent costs and perceptions of less than optimal contraceptive effectiveness. At the same time, partner cooperation was a serious obstacle for many women in these discussions, and appeared to contribute to the low interest in these methods among participants in Karachi, Cd Juarez and Udaipur/New Delhi. In fact, the sites with the least interest in these methods were those where women reported the greatest discordance with partners over contraception in general, ie. where a significant number of women reported a need to contracept secretly. These findings are consistent with other reports that men's unwillingness to cooperate in the use of coitus-related methods is widespread.[29] These data may also offer some explanation of why, in a study of DHS data from 39 developing countries, it was found that few persons who intend to contracept in the coming year intend to use barriers.[30]

Finally, we recognise that it is not clear to what extent stated preferences are borne out by behaviour – especially future behaviour.[30-32] The link may be especially weak in developing country settings where many factors affecting preferences (eg. domestic norms, women's status, government policies, the quality of family planning services and people's access to information) are undergoing rapid change. For example, only in 1994 did Cambodia officially approve the use of modern contraception, and the distribution of related information. Certainly, the social role of women is evolving quickly in many settings, and therefore certain needs and preferences expressed in these discussions (for secrecy, for a delayed return of fertility, etc.) could soon change. For this reason consumer preference research may be of greater immediate value to service providers than to contraceptive development scientists.[33]

Improvements in women's condition worldwide do not yet lessen the disparities in women's circumstances in different regions and across different socio-economic groups. Such disparities make it critical that poor women's interests are not presumed, but carefully and adequately documented, preferably at a local level. In keeping with this effort, disparities between developed and developing country women need clarification. For example, our findings do not support recent feminist commentary that women do not value effectiveness as highly as they do other factors, such as convenience or lack of side effects.[8]

In fact, one of the more striking messages gleaned from the poor, urban participants in these focus-group discussions is their desire for improved long-acting, highly effective contraception. This is manifest in the priority given to effectiveness, the desire for a long duration of action, their dissatisfaction with many available methods due to perceptions of low effectiveness, their fears of method failure, their fear that amenorrhoea indicates pregnancy even when forewarned to the contrary, their reservations about the effectiveness of barriers, and in Karachi, the extraordinary finding that a delayed return of fertility after method discontinuation was a good attribute because it provided just a little more protective time.

At the outset of this research project we anticipated that services and providers were likely to be important determinants of women's expressed preferences for contraceptive attributes. At times, we wished that we had probed further on this point, as we found ourselves curious about the source, or basis, of many ideas expressed by the participants. However, we chose to avoid direct questions about the role of services, providers, the media or the like, in order not to presuppose what the determinants

of women's opinions were; rather, we strove to provide a forum in which the women could provide spontaneous mention of those factors which they saw to be the basis for their preferences.

The discussions suggested three major forces underlying women's preferences for certain contraceptive attributes: conjugal dynamics, interactions with and regard for providers, and women's perceptions of their own underlying health status. A second phase of field research is currently underway to investigate further how each of these factors shapes women's perspectives and preferences for different contraceptive attributes and technology.

Given new research and programmatic commitments to undertake women-centred population policy reform, poor women's preferences regarding contraceptive technology need further systematic investigation, involving larger numbers of women. While the current findings underscore a strong need for improved long-acting, highly effective (yet reversible) methods of contraception, we regard our work as preliminary and exploratory, and look forward to further data on women's responses to pending and potential developments in contraceptive technology.

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Women's Perceptions and Experience with the Progesterone Vaginal Ring for Contraception during Breastfeeding

Soledad Sánchez, Claudia Araya, Marcia Tijero, Soledad Díaz

This paper describes part of a qualitative study which explored the acceptability of the progesterone vaginal ring, a new hormonal contraceptive method designed for use by breastfeeding women in the post-partum period, and how and why Chilean women decided to use or not to use it. Seventy-eight women who had selected either this ring or the Copper T-380A intra-uterine device were asked for their impressions through semi-structured interviews and focus groups, either before, during or after they used the method. Method selection was influenced by women's perceptions of advantages and disadvantages of the ring itself, compared with other methods, level of interest in trying a new method, previous contraceptive experience, and quality of care and counselling received. Most women who used the ring found it highly acceptable and mentioned the following advantages: comfort, efficacy, ease of insertion and removal, user's control, safety, no negative effect on sex life, and prolonged amenorrhoea. Nevertheless, some women disliked these same characteristics or had fears regarding them, and a few women had negative experiences such as excessive vaginal discharge or frequent expulsion. This method creates a special opportunity for counselling to help women gain in knowledge and power over their bodies and health.

ACCEPTABILITY studies are a useful instrument to address potential and actual users' perspectives regarding a contraceptive method. This kind of research should include users' attitudes, opinions, fears and beliefs about the method, as well as other factors that may affect those attitudes, such as partner's, relatives' and peers' opinions, quality of care issues, socio-cultural and contextual determinants.[1,2]

The successful use of a method is largely affected by acceptability issues. Therefore, attitudes and the practical implications that they have for the introduction of any given method in family planning services must be assessed.[2] The possibility of developing useful counselling, and thus favouring users' satisfaction and successful use depends on adequate knowledge of a method's acceptability.[3]

Acceptability research with vaginal rings (combined oestrogen-progestogen or progestogen-only devices) shows that women appreciate ease or convenience of use, efficacy, not having to take something daily, and extent of user control and safety.[4-7]

The perspectives and particular contraceptive needs of post-partum women are among the least documented.[1] This paper explores the acceptability of the progesterone vaginal ring (PVR), a new contraceptive designed precisely for breastfeeding women in the post-partum period. It describes the women's perceptions of the ring before using it and the factors that influenced method selection; the advantages and disadvantages perceived and experienced during use; attitudes towards the ring's novelty; and quality of care and counselling issues. It is the first acceptability study of this ring that we are aware of. Other topics included in the study were: attitudes of partners, relatives and peers towards the ring, specific counselling requirements for each stage of use, and perceptions of contraceptive need during the post-partum period, which will be presented in future publications.

The PVR is a hormonal method that is placed in the vagina, where it releases the natural hormone progesterone, which is absorbed

through the vaginal wall. It is a white, soft, flexible homogeneous Silastic® (silicone) ring with 22.5 per cent progesterone, which is released steadily. It has an outer diameter of about 58mm and a cross-sectional diameter of 8.4mm. It can be placed anywhere inside the vagina that feels comfortable, and usually sits in the upper part of the vagina. The user can insert and remove it with her fingers, and it can be taken out for up to two hours per day. In the present study it had to be replaced after three months' use, and could be used continuously for up to one year or until the end of lactation, whichever came first. This ring has been tested in clinical trials; it has shown high efficacy, good clinical performance and extension of post-partum amenorrhoea.[8,9]

Study, methods and participants

The study was undertaken between March 1994 and January 1996 at a private, non-profit family planning clinic at the Instituto Chileno de Medicina Reproductiva (ICMER) in Santiago, Chile. The research team consisted of two psychologists, a social scientist and a physician, all of them women who had no other contact with the participants.

The acceptability study was conducted among 78 out of the 235 post-partum women who participated in a phase III clinical trial evaluating the ring's efficacy and side effects.[10] At the time they entered the clinical trial women were fully nursing, and willing to breastfeed for as long as possible. They were healthy and had no contra-indication for either method offered. For the clinical trial, the women were counselled individually on all the methods suitable for post-partum contraception, and were offered the PVR or the Copper-T380A. Those who chose one of these two methods were invited to participate in the trial.[11] Women initiated their method around day 60 post-partum.[12] At that time, those who chose the ring were instructed by a midwife on how to use it, and had the chance to practise insertion and removal.

In the acceptability part of the study, a qualitative methodology was used that included semi-structured interviews and focus groups, as these techniques favour the expression of spontaneous opinions, and allowed participants to describe the range of attitudes towards different aspects of the method. The results enhance understanding of the main issues connected with the method's acceptability, but cannot be generalised to a larger population.

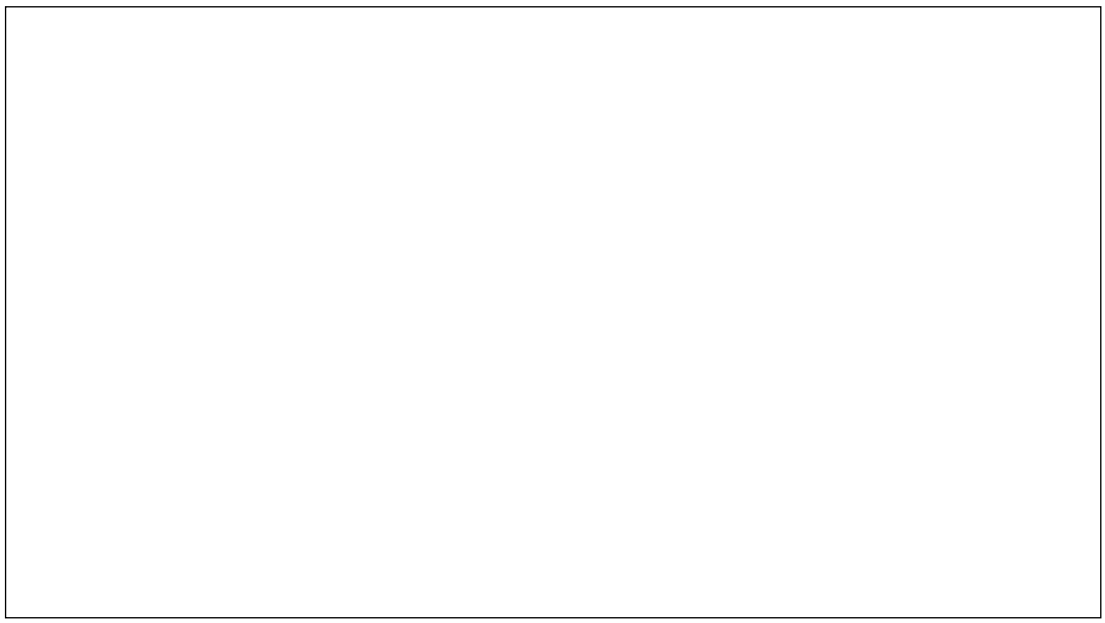
The respondents in the acceptability study were urban lower- and middle-class women, married or in stable union. Their average age was 24.6 years, and the average number of live births was 1.8. Sixty per cent had completed secondary school. One third were housewives and the rest were students or had a job outside the home (and were on maternity leave). The contraceptive methods most frequently used by them previously were the pill and Copper-T380A IUD (the main choices offered at public clinics in Chile). One fifth had never used a method, and a few had used injectables, rhythm, implants, other vaginal rings in a prior clinical trial, spermicides or condoms. They did not differ significantly from the women in the larger clinical trial group in terms of age, parity, education, average duration of contraceptive use within the study and reasons for discontinuation.

Our aim was to explore aspects of acceptability before, during and after use of the ring. Four study groups were therefore planned beforehand: ring selectors, Copper-T selectors, ring users and ring discontinuers.

- Selectors were women in their first month post-partum, who had chosen the PVR (n=17) or Copper-T (n=15) but had not initiated use.
- Users were women who had used the PVR (n=36) for 3 to 14 months (mean = 6.6 months).[13] All but four of them were using the ring at the time of interview or focus group.
- Discontinuers were women who had used the PVR for 1 to 13 months (mean= 4.9 months) and had decided to stop using it (n=10) for non-medical reasons, mainly discomfort. They were interviewed within two weeks after discontinuation.

Participants were selected by two nurses, on the basis of practical reasons. For the interviews they invited women who were not in a hurry to leave the clinic, preferably those who came with their babies and no other children. For the focus groups, participants were invited because of their previous compliance with scheduled visits to the clinic. The women were all informed of the purpose of the study and most women who were invited accepted to participate.

Each interview was carried out in a private



A progesterone vaginal ring (left) and a diaphragm (right)

office, immediately before or after women received clinical care, and took about 30 minutes. Three focus groups with PVR users of about an hour each were conducted, with four to seven women in each; participants attended the clinic specifically for this purpose. Flexible guides of topics and open-ended questions were used, and women were not prompted with possible answers. Clarifying questions were asked to gain deeper understanding of each woman's perspectives.

Interviews and focus groups were tape-recorded and transcribed with subjects' agreement. Forty per cent of the transcriptions were checked to ensure their accuracy. To safeguard anonymity, each interview was assigned a code for identification. Data analysis was performed by two female psychologists, with the assistance of a physician. The information was coded and classified[14] using the categories and sub-categories identified from what the women said, ie. their attitudes towards a new method, its efficacy, comfort, etc.

Perceptions, beliefs and selection of a new, unknown method

Both ring and IUD groups had positive and negative opinions about almost every characteristic of the ring. Doubts expressed by ring selectors about the ring were typically expressed as negative expectations by IUD selectors.

Ring selectors spontaneously compared the ring to other methods, usually the IUD and oral contraceptives. Most of them had negative feelings about the Copper-T due to their own or other women's experiences. In contrast, most IUD selectors had previously had a positive experience with the IUD.

The fact that the ring has a natural hormone which does not interfere with breastfeeding was highly valued by ring selectors, most of whom were interested in using a hormonal contraceptive.

'I was told here that the ring does not affect breastfeeding at all. With my first child I was given the pill, and it reduced my milk.... The best thing is to nurse as long as the baby wants.'

However, women who selected the Copper-T knew that IUDs do not interfere with breastfeeding, so this was not seen by them as a comparative advantage.

Most ring selectors believed that the ring would be safer for their health than the IUD, since it is not put inside the uterus and therefore it can not 'encrust', migrate to another part of the body, or cause infections.

'The ring is less dangerous than the IUD and it won't go up [into another part of the body]....It is placed more externally, so there are no problems of infection.'

Such beliefs and mistaken information about IUDs, in spite of information given during counselling, seemed to favour a positive evaluation of the ring. Women thought that because the ring is made of flexible material and does not contain copper, it would not produce 'acid' (which they thought the Copper-T did), nor cause ulcers, cancer, pain or discomfort. Another aspect of safety was the limited duration of efficacy of the ring. Women who selected the ring were afraid that IUDs could cause 'some internal trouble' because they are used for a number of years.

Some Copper-T selectors also thought the ring would be safe because it is made of flexible material, the woman herself handles it, and it can be washed. On the other hand, some ring selectors expressed doubts about potential systemic side effects such as weight change and mood variations, or delay in return of fertility.

Some ring selectors valued the greater extent of user control over the ring because this would make them more independent of health professionals. Some Copper-T selectors appreciated the possibility of taking it out for a while every day, which they said would give them a feeling of confidence and might be associated with the popular belief that 'resting' from contraceptives is advantageous.

'...For the person who knows how to handle it, not to have it always inside is an advantage....I'm not using a method now. And it feels all right, you don't worry about anything.'

Several IUD selectors, in contrast, found the ability or possible need to remove the ring daily or regularly worrying. They were afraid that this would make the ring ineffective, a sign that they had not understood its mechanism of action.

'[The midwife] told me that, if it bothered me during intercourse, I could remove it. But I said: "No, I prefer to use something effective. I won't keep removing and inserting it, no."'

Some IUD selectors feared they would not be able to handle the ring correctly, and some thought it required too much attention. For them, user control was a negative aspect of the ring. Women who felt this way usually preferred to depend on a health professional's care. Three-monthly replacement and limited duration of efficacy of the ring were also disadvantages for them.

'I may forget to put it back in, or I might remove it and then not be able to reinsert it....'

'But one must replace the vaginal ring, and one must handle it. I found the idea bothersome.... That's why I chose the IUD. They put it in once and it lasts for eight years.'

At the same time, IUD selectors were sometimes ambivalent about the IUD, even while choosing this method: they praised the IUD for being a long-term, provider-dependent contraceptive, but at the same time, some of them valued the possibility that a method could be removed, at least once in a while.

'All methods should be removable.'

One concern raised by both ring and IUD selectors was the potential for discomfort of the ring, particularly because they found it very big and thought of it as a foreign object they would be putting inside their bodies.

'I think it will be uncomfortable, though they tell me it is not. Because of its size...its location. When it is something foreign to the body, one rejects it.'

As efficacy was a vital topic for the women, the fact that most ring selectors did not address the issue of efficacy was rather surprising. Additionally, very few mentioned potential difficulties in handling it. Our hypothesis is that some of them did have concerns regarding these aspects of the ring, (as revealed in the interviews during use), but denied them and/or stressed positive characteristics of the ring as an anxiety-reducing strategy.

Overall, among ring selectors several factors influenced method selection: a positive attitude towards new technology more generally, and/or the perception of certain advantages of the ring itself, the absence of negative information about

it in the community, and their rejection of the Copper-T. The absence of personal experience with the ring was associated with an 'open-minded' attitude.

'[Disadvantages?] I don't know, I have to use it first and then think about that.'

In contrast, among IUD selectors, who had also not used the ring before and who did not know anybody else who had, the ring generated strong feelings of distrust precisely because it was an 'unknown' method. These feelings and their positive attitude towards the Copper-T contributed to the perception of the features of the ring as disadvantages.

The experience of using the ring

Most ring users reported a positive experience with the method, and their initial doubts regarding comfort, efficacy and handling were assuaged during use of the ring. Women described an adjustment period, which included getting used to the odd sensation of this foreign object inside their bodies and learning how to handle the ring appropriately.

'The first day I used it, it was difficult, because I was anxious about touching myself and feeling something inside. I had never done something like that…But then I got used to it, removing it and so on.'

Women also reported a gradual decrease in their initial fears of such things as health problems, pain, inability to handle the ring or method failure (some did not trust the protective effect of breastfeeding).

'…I asked if it causes any problem 'inside', but no, I've been verifying on my own that I have no problem at all.'

While some were highly enthusiastic, however, others did experience various problems. Some initial difficulties were overcome with counselling, and others apparently resolved themselves spontaneously. Nevertheless, certain problems were experienced later on, such as ring expulsion and difficulties with handling.

'The first month was good, the second too, but these days I've had the problem that it keeps slipping out constantly.'

Positive experiences and advantages

Confidence in the ring's efficacy increased progressively during use, as women experienced the absence of pregnancy. Some thought the ring was even more effective than the IUD.

'At first I didn't trust it too much…I thought I could become pregnant. But now, I have realised that it is pretty good, I wish I could use the ring for ever.'

Women usually found the ring comfortable because it is flexible and adapts to the body's shape and movements, so they did not notice its presence. Some reported that they even 'forgot' about it, and had to check whether it was still there.

'I've also had to touch it to check if I've still got it in, because that's the impression it gives, that you don't even have it in.'

In many cases the ring did not bother either women or their partners during sexual intercourse, and if it did, it was easily removed.

'No, it doesn't bother my husband either….He says he doesn't even feel it.'

They found it convenient since they did not need to remember to take something every day. Most users found the ring simple to insert and remove and quickly learnt to handle it. Removing it when they wanted to was highly valued because both the woman and clinic staff could check its location and condition when desired/required.

'You can feel more confident; people are so afraid of cancer and so on. But you can actually see this one, you can wash it, you can check it's OK.'

This is important since several women believed that IUDs can undergo certain harmful changes: 'You don't know if the Copper-T is in bad condition'.

Control over the ring was also associated with feelings of property, responsibility and autonomy. Using the ring helped some women to overcome inhibitions and discover a new relationship with contraception:

'The ring is something that you manage yourself, it is something of your own.'

'It was quite new for me, because one has lots of taboos with regard to this….And especially touching your genitals. And the fact that you can insert and remove it, it's quite new. It's beautiful.

It's as if you were the doctor. They trust you, they give you the kind of confidence the doctor has when she examines you. And they convey that confidence to you. You have to be careful enough to wash your hands when you touch your genitals to remove the ring, then wash, dry and reinsert it correctly.'

Women liked the prolonged amenorrhoea and the need for periodic replacement of the ring for a range of reasons, including comfort, enhanced confidence in its efficacy, prevention of anaemia, hygiene and frequent medical care. The initial perception of safety was confirmed by most users, who experienced no systemic or local side effects.

'With the other contraceptives I have used, I had these intense headaches... but not with this one. So I find this is natural for me, because it caused me no problems.'

Negative experiences and disadvantages

Even if they had a positive experience overall, on occasions users experienced and noticed disadvantages. Some women experienced partial expulsion of the ring, and consequent discomfort and occasionally pain. In some cases, this was a mild problem and they managed to get the ring back in easily. Others were made anxious because they were afraid it was going to slip out completely.

'The problem I have is that sometimes when I'm walking down the street, it slips out a little. Then I have to squeeze my legs together really hard to make it go back in. That's uncomfortable.'

For some women user's control was a disadvantage, because they did not feel at ease touching their genitals, had problems inserting or removing the ring, or feared hurting themselves. A few had forgotten to reinsert the ring, and this raised fears of pregnancy.

'I've never tried to introduce it. I'm scared. So I just push it up with a finger. And sometimes I feel uneasy introducing my finger, because I'm afraid of hurting myself.'

Excessive vaginal discharge and fear of vaginal infections were reported by some users. Nausea, hot flushes, headaches, difficulty losing weight and hirsutism were sometimes attributed to the ring. In addition, some women wondered if decreased libido was a side effect of the ring, and felt embarrassed to discuss this issue with the health professionals. (Some of these complaints are probably related to breastfeeding).

In contrast to those who liked the prolonged amenorrhoea, several women thought they might be pregnant. Others feared the accumulation of 'bad blood' inside the body. In some cases, if the ring bothered the woman or her partner during intercourse, the women did not like to remove it for various reasons, including fear of infection and pregnancy, because they thought the ring acted locally as a barrier.

'I guess, maybe I'm pregnant. Because the ring slips so fast... And since I don't have my menses, then I don't know if I am pregnant or not.'

'Once it hurt him. I told him the midwife said I could remove it. But I'm scared, I told him, of becoming pregnant. So I don't remove it.'

Fear of pregnancy also appeared near the end of breastfeeding, when some women worried about the decrease in the frequency of suckling episodes.

'She [the midwife] told me that if I breastfed the baby once a day, it was enough. But I try to give her more, to prevent pregnancy.... Not all bodies work the same way.'

Women who discontinued the ring experienced some of the problems already described, but in a more severe and/or persistent way: frequent expulsion, excessive vaginal discharge, interference with sex life, requirement of user's responsibility, and in one case of vaginal infection, acute pain.

'The only problem was that vaginal discharge, it was like having my menses the whole month. Uncomfortable...'

The evolution of these problems was highly variable. They began at various stages of use, were persistent or acute, and were tolerated by women very differently (one discontinued the ring after two weeks while another continued to use it for 13 months). In spite of their experience, several discontinuers had a very positive opinion of the ring, and were interested in using it again if the problems they had could be avoided.

Not a new method anymore

Most ring users declared they would like to use the ring in the future because they had a positive overall experience. Some considered limited duration as the only real disadvantage of the ring, and mentioned the need for a contraceptive ring for non-breastfeeding women.

'For me it was great. I loved the ring, and it's a pity it's just for the breastfeeding period.'

Both during and after use, most women were not worried about the ring's novelty. They encountered negative reactions from among relatives and peers, which they understood as reactions of fear and rejection derived from people's lack of information, so these did not change their decision to use the method. Once they were sure about the ring's efficacy they engaged in advocacy for the method. Women frequently talked to other women about the ring's advantages. During this study they also mentioned the need to make it available to the general population.

'They told me I was crazy to use this method... An aunt of my husband didn't trust it because I was able to remove it. She said it wouldn't work. But I said I had used it for six months, and it was working for me.'

'It would be useful for everybody…The ring should be accessible for everybody in the future… It should be a normal method already, like any other one. And physicians should explain everything very well, as they did with me.'

Participants mentioned various factors that would influence the ring's acceptability: willingness to breastfeed, youth, 'body acceptance' of the method, need for a short term method, modern attitudes with regard to women touching their genitals and contraception, and partners' attitude towards contraception.

Quality of care and counselling

Quality of care and counselling proved to be key factors influencing women's satisfaction with the method. Participants evaluated the care received at the clinic in positive terms.[15] Some explicitly connected their selection of the ring to the friendly manner of the staff and the counselling received. Reducing women's doubts and fears through adequate counselling increased the chance that they had a good experience with the ring.

'Even the way they treat you here is different… The midwife who talked to me the first time, she explained everything to me; the characteristics of the ring, its functioning. That's why I felt confident.'

'Because of the way they explained to me, I trusted what she said. So I was never afraid of removing it, of becoming pregnant.'

Nevertheless, we were able to identify some difficulties in client/provider communication, such as the occasional use of technical language, failure to give information at the right time, women's lack of knowledge about their body, and their inhibitions about asking questions. Doubts, incomplete or mistaken information came out frequently during this study (eg. 'What happens if the ring goes up into the uterus? Is it possible?') and some of them had a very negative influence on women's experience with the ring, increasing their fears and influencing them to put up with unnecessary discomfort.

'The first time I removed the ring, it felt as if my whole uterus was going to come out with it….'

Discussion

The progesterone vaginal ring proved to be a highly acceptable method for some women. The high continuation rates in the clinical trial point in the same direction.[10] This study illustrates some of the complexities involved in women's decisions regarding contraceptive technology, as well as the diversity of their perceptions of and experiences with a new method.

The results suggest that counselling about the ring should include specific topics at each stage of method selection and use. Among the most important are: appropriateness of size and material of the ring, mechanism of action, period of adjustment and eventual side effects. Checking users' ability to handle the ring, and helping them to overcome eventual interference of the ring in their sex life are also central issues.

The results also confirm that different women need different methods. Almost every attribute

of the ring was perceived by some women as an advantage and as a disadvantage by others, depending on their personal preferences. Thus, ring selectors underlined method safety, did not like IUDs and were more prone to try something new. On the other hand, IUD selectors had a positive opinion of IUDs, gave more importance to efficacy and felt distrust for an unknown method. Therefore, no contraceptive alone can satisfy the needs of all users, which suggests that an expansion in the range of available methods is necessary.

The study supports previous findings about the critical role that quality of care and counselling play in users' satisfaction with contraceptive methods. Counselling in particular is a delicate and complex task, better understood as a two-way communication rather than an information-giving process.

Women are neither passive nor neutral listeners, though they may seem so sometimes. They have needs and preferences, values and beliefs, that influence their comprehension of information. They are not always able to make sense out of the data conveyed by providers, since they lack basic knowledge about anatomy and physiology. They fill gaps in that knowledge with fantasies, and sometimes frightening ones. They are not aware of those distortions, and do not always have the courage to ask about their doubts.

In addition, they also get information from their peers, the mass media and other sources. Community knowledge and rumours also play an important role: when providers' and peers' messages contradict each other, women are likely to trust or rely on their peers as more valid informants.

Therefore, providers should not assume that their explanations are immediately and correctly understood and accepted, nor that they will be recalled later. Adequate counselling should explore women's perceptions and knowledge, their life situations and needs. It should convey the necessary information, checking how women understand it and addressing any myths (or half-truths) they may sustain. If this is not done, or done poorly, or if women are asked to put an absolute trust in health professionals instead, women will not gain in knowledge and power over their bodies and health.

Furthermore, since relevant information cannot be delivered all at once, and women experience various doubts and problems at different points while they are using a method, counselling should be ongoing and tuned to women's individual and specific needs.

In the particular case of the progesterone vaginal ring, counselling should take into account the fact that this is a user-controlled method. Some women definitely do not actually like this trait. The fact that the women in our study and many others frequently bear a heavy load of domestic work and responsibilities may contribute to this attitude. They simply do not want to have something else to remember or manage, and this must be respected.

On the other hand, we think that as a user-controlled method, the ring creates a special opportunity to promote women's empowerment. Among the women in this study, fears of being unable to handle the ring were frequently replaced by women's sense of control and property over the method, responsibility for their own health, and autonomy in relation to health professionals. Some women reported that using the ring gave them more contact with their bodies and an increased consciousness about family planning. A sense of pride accompanied this process. For these reasons, the vaginal ring can be a stimulus and a concrete tool for a process of empowerment, given the necessary motivation among women seeking contraception and providers.

This study has various limitations. It was carried out in the context of a clinical trial, and this implies higher quality services.[15] This may also result in biased information, since volunteers in contraceptive trials are usually attracted to the idea of something new and/or are dissatisfied with available alternatives.[5] In addition, participants were selected for practical reasons rather than through more accepted study procedures.

In the future, acceptability of the progesterone vaginal ring should be addressed in a context where women have more contraceptive options and in typical health service settings. Future research should also include surveys among larger groups of potential and actual users with diverse socio-cultural characteristics.

Because of the multiple issues it raises, the acceptability of new contraceptive technology is a complex issue. Qualitative research in this area

is expensive and time-consuming, and requires an interdisciplinary team, which is relatively uncommon but much needed in the field. Its goal is to capture and describe users' (and providers') perspectives. It is useful only if results are applied to the design and implementation of adequate services and counselling strategies, as well as subsequent contraceptive development. With this in mind, results must be expressed in different languages to reach managers, providers and researchers. These are our aims and challenges.

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12. Fully nursing amenorrhoeic women are at no risk of pregnancy in the first 60 days post-partum. To evaluate the impact of contraceptives on breastfeeding performance, the methods were initiated around day 60, when lactation was well established, with the newborns showing a good growth rate.
13. Some women who were still breastfeeding during the use of the fourth ring asked for a fifth one and used it out of the clinical trial protocol.
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Perspectives from Couples on the Vasectomy Decision: A Six-Country Study

Evelyn Landry and Victoria Ward

This paper contains data from a qualitative study from 218 in-depth interviews with men and women and their partners who decided to have a vasectomy in six countries: Bangladesh, Kenya, Mexico, Rwanda, Sri Lanka and the USA. It examined the key factors that led men to choose vasectomy and what role their partners played in this decision. The reasons for choosing vasectomy were similar in all of the countries despite many cultural, economic and racial differences; importantly, both men and women cited concern for the woman's health as a principal reason. However, the way in which problems were framed and, to some extent, the degree to which some reasons outweighed others differed. Women's role in the decision tended to be limited in Bangladesh and Sri Lanka, but more active in the other countries. Encouraging men to have vasectomy for their partners' sake and stressing that it is the man's 'turn' to take responsibility for family planning may be effective promotional strategies. Women's ability to support men's decision to a greater degree could be strengthened and vasectomy introduced in a light-hearted or joking way. Issues raised about multiple partners and the need for protection against sexually transmitted infection for those who are not in mutually monogamous relationships are also explored.

RECENT research in developing countries has revealed that men can play an important role in deciding whether or not women use a family planning method.[1-3] National contraceptive prevalence surveys for many developing countries now include interviews with male respondents and include questions related to communication between partners about family planning.[4] Existing studies show that men's role varies greatly according to cultural and social context.[5] In the USA, among couples who choose both tubal occlusion and vasectomy,[6-10] the woman plays a key role in the decision to have a vasectomy. Among couples who have chosen vasectomy, women are more likely to have discussed the procedure with their partners and to have known a satisfied vasectomy user before the choice was made.[6,9]

Although vasectomy is an important alternative to female sterilisation for couples who want a permanent method of contraception, barriers to its wider use exist in many places. Service providers who believe men are not interested and who consequently limit information and access are a principal constraint; other barriers are negative attitudes and misinformation. Yet even in Latin America and Africa, where few family planning policymakers believed vasectomy would ever be used, experience has shown that when information and services are provided, men will seek out and use vasectomy.[11,12]

Between 1992 and 1995, a qualitative, exploratory study on the vasectomy decision was conducted in four countries where vasectomy prevalence was relatively low – Bangladesh, Kenya, Mexico and Rwanda – and two where vasectomy prevalence was relatively high – Sri Lanka and the USA. This was part of a larger initiative by AVSC International aimed at increasing awareness and use of condoms, vasectomy and other methods which involve the direct participation of men (withdrawal, abstinence, rhythm and other fertility awareness methods; increasing men's awareness of and support for the family planning choices of their partners and safeguarding the reproductive health of their partners and themselves. The results were used to assist programme managers from the reproductive health organisations where the research was conducted to improve

service delivery approaches to reach men. Based on the findings in the six country reports[13-18] this paper describes the key factors related to the decision to choose vasectomy and the role both partners played in the decision to control family size, use contraception and choose vasectomy.

Vasectomy use in the six countries

Current levels of modern contraceptive use among married women of reproductive age vary widely across the six countries in this study, from 13 per cent in Rwanda to more than 60 per cent in Sri Lanka and the USA. (*Table 1*) Awareness of vasectomy as a contraceptive option also varies across countries. Women in Bangladesh, Mexico and Sri Lanka were more likely to have ever heard about vasectomy than women in Kenya and Rwanda (data not available for USA).

Vasectomy services have been established longer in Bangladesh, Sri Lanka and the USA (dating from the 1960s and 1970s) and more recently in Kenya and Rwanda (late 1980s and early 1990s). Access to and availability of vasectomy services differ substantially. In Kenya, the public sector does not provide services; in the other five countries both private and public sector institutions provide vasectomy services. In Mexico, two of the largest public sector health institutions, the Ministries of Health and Social Security, provide vasectomy services in more than 200 sites around the country.[25] Access was limited to about 20 sites in Kenya and two sites in Rwanda at the time of the study.[17,18] In the USA vasectomy is provided, for the most part, by private practitioners – mainly urologists; access to vasectomy through the public sector is limited, though efforts are underway in a few states to make public financial support for vasectomy more readily available.

Methodology

In each country, between 10 and 31 couples were interviewed, with each partner in the couple interviewed separately. In all six countries respondents who had a vasectomy in the previous six to twelve months before data collection began, were randomly selected from the clinic registers of at least two service sites. Except in Mexico and the USA, where all respondents came from urban locations, all respondents were recruited from both urban and rural locations. In all but two of the countries most couples were interviewed within one to six months following the vasectomy procedure. One man in Kenya and two men in the USA were interviewed more than one year after the procedure.

In all six studies, an open-ended, semi-structured interview guide was used. A core interview guide was developed which included questions on previous use of family planning, reasons for not having more children, reasons for choosing vasectomy over other contraceptive methods, the roles of each partner in the decision to use a method, and women's role in the vasectomy decision. The interview guide was modified based on specific programmatic differences for each country.

Local, trained interviewers, both men and women, did the interviews.[26] In Mexico, only women did the interviews. Each research team (interviewers and study supervisors) was trained for approximately 3-5 days in in-depth inter-

Table 1. Selected Contraceptive Prevalence and Awareness Data: Study Countries

%	Bangladesh[19]	Kenya[20]	Mexico[21]	Rwanda[22]	Sri Lanka[23]	USA[24]
Using a modern method*	36.2	27.3	52.7	12.9	65.8	59.0
Using female sterilisation*	8.1	5.5	36.2	0.7	24.9	29.5
Using vasectomy*	1.1	<1.0	1.5	<1.0	4.9	12.6
Women aware of vasectomy*	82.9	45.4	67.1	37.6	90.8	nk
Men aware of vasectomy	89.4	56.2	nk	nk	nk	nk

** = married women of reproductive age*
nk = not known

Table 2: Number of Respondents and Selected Characteristics by Country [27]

Country	Male Respondents			Female Respondents			Total
	Number	Mean age	Mean no living children	Number	Mean age	Mean no living children	
Bangladesh	20	35	3.3	17	26		37
Kenya	20	40	6.0	10	34	4.6	30
Mexico	15	31	2.7	15	28	2.8	30
Rwanda	15	40	6.0	15	35	5.3	30
Sri Lanka	15	34	3.3	15	27	3.4	30
USA	31	27	3.0		33	3.0	61
Total	116			102			218

viewing techniques. In all countries, interviews took place in the respondents' language. They lasted between 60 and 90 minutes each and were all tape recorded. They were later transcribed by the interviewers, reviewed for accuracy by the study supervisors, and translated into English for analysis.

In the USA, interviews were conducted in English. The transcripts from Mexico were analysed in Spanish, so translation was also not necessary. In the other four countries translation had to be done twice. For example, in Rwanda interviews were conducted in Kinyarwanda, translated first into French and then into English. In an attempt to control for possible distortions due to two translations, each country research team reviewed the translations from the local languages. Nevertheless, given the limitations of such a procedure, little weight has been placed on the specific wording or phrasing of responses.

Profile of respondents

The mean age of male respondents ranged from 27 to 40 years. Female respondents were generally younger than the men (*see Table 2*). Couples in Kenya and Rwanda had an average of five to six living children, compared with an average of three in the other countries. The vast majority of respondents from each country had children of both sexes (one couple in Mexico, four in Sri Lanka, and six women and two men from the USA had no sons; one couple in the USA had no children). Couples had been married or living in union for 7-17 years (*data not shown*).

Over half the male respondents in Bangladesh, Kenya, Mexico and the USA had completed at least some secondary education (in the USA all but two men had completed secondary school). Male respondents in Sri Lanka and Rwanda had the lowest levels of education: the majority had completed some level of primary school. The level of education of the women was lower than that of the men in each country except the USA. These data are similar to data found in other larger country specific studies with profiles of vasectomy users (except Rwanda because no national level data exist).[19,28-30]

In Sri Lanka and Rwanda the majority and in Bangladesh about a third of the men were farmers. In the other countries the men's jobs ranged from teaching school to owning a business. Type of occupation of the US respondents was not recorded but all but two of them were employed. Most of the women respondents were not employed; many worked in their homes.

Previous use of family planning was common among all couples. Fewer than six respondents from each country reported never having used any method to space births, modern or traditional, prior to vasectomy. Respondents from all countries except Mexico and the USA reported they had previously used on average one modern method.

Reasons for not having more children

Virtually all of the respondents in all six countries cited economic issues as a reason for not having more children. For some couples, extreme financial need was clearly the most compelling factor in the decision to seek vasectomy. In Rwanda, couples spoke about hunger and the near starvation of their children, and similar stories of extreme hardship were given by respondents in Sri Lanka and Bangladesh.

In Bangladesh and Sri Lanka, the role of compensation payments to poor men and women seeking sterilisation services and their influence on the decision-making process have been studied.[31,32] In Sri Lanka low income men did not differ in their desired number of children from higher income men,[32] but they were more likely to decide that vasectomy was the best option available for improving their family's economic situation and providing better opportunities for their existing children in terms of education. In Bangladesh the situation was similar,[31] but it was also found that men and women of higher economic status had greater access to other contraceptive options than those with lower income.

Our data from Sri Lanka confirm those from the earlier study. Couples from other countries in the study (especially Kenya, Mexico and the USA) cited financial reasons as well, but these were not as severe. In Mexico and Kenya, respondents wanted to provide better for the children they currently had. While both men and women described family finances as a principal motivation for not having more children, the women were more likely than the men to mention the specific needs of children for food, clothing and education.

For many, the birth of a child (or in several cases, twins) and the resulting strain on the family economy prompted the decision to end childbearing. Many couples had made the decision to have a vasectomy during or immediately following the birth of their last child. One man in Sri Lanka had the vasectomy while his partner was pregnant with their third child.

Another reason for halting childbearing cited by both men and women in every country was concern for the woman's health, including the toll of multiple pregnancies. Men described how their partners had been weakened by pregnancies and childbirth. One man from the USA summed it up this way: '…I'd seen the way she suffered carrying the last one and I didn't want her to go through it again.'[13] Some respondents in each of the countries felt that contraceptives, especially the pill, had contributed to the poor health status of the woman.

Gender preference (usually for boys) has often been cited as a factor associated with fertility decisions.[5] Although virtually all of the couples in this study had had children of both sexes, a few men mentioned that they would have decided to halt childbearing earlier, but wanted to have a boy (or in one case, a girl). In Sri Lanka, four couples had had only daughters. One of these men explained that he could not afford any more daughters because of the cost of dowry.

Reasons for choosing vasectomy

One of the most striking findings of this six-country study was that the reasons for choosing vasectomy were similar in all of the countries, despite the many cultural, economic and racial differences between them. What varied was the way in which people framed the problems and, to some extent, the degree to which one reason outweighed others as a primary rationale.

Much of the literature on vasectomy reports that men and women around the world are misinformed about vasectomy, eg. that it causes impotence or makes men weak. In this study virtually all respondents reported hearing negative comments about vasectomy, mostly from friends, but their concerns were dispelled when they obtained information from providers or other vasectomised men.

Women's health

As with the desire to end childbearing, concern for the woman's health was a factor in choosing vasectomy over other methods, including the effects of pregnancy or contraception, 'poor health' in general or specific health problems. Some said that men were stronger and thus should take responsibility for the operation, while the African and Asian men in the sample (though not the Mexican or US respondents) often felt that as the economic provider or head of household they had to take responsibility. Some men and women in all the countries simply said that it was now the man's turn, since the woman had been responsible for previous

contraceptive use and childbearing. As a woman from the USA said: 'To me it was being done to him instead of to me, so that was the best. I wasn't having any more medical intrusions into my body.'[13]

Many couples in all the countries saw vasectomy as a better choice compared to tubal ligation in that the recovery time for tubal ligation was longer than for vasectomy and tubal ligation was more risky than vasectomy.

These findings suggest that at least some men are more concerned about the well-being and health of their partners than has been commonly believed by service providers. While these data do not indicate what proportion of men feel this way, they do suggest that a subset of men in each country find such concerns important enough to motivate the vasectomy decision. Messages which encourage men to have a vasectomy for the sake of their partner's health and which stress that it is the man's 'turn' to take responsibility for family planning may thus be effective promotional strategies. This conclusion has been corroborated by recent research in Latin America.[33] The fact that problems with pregnancy and delivery and that many couples made the decision to have a vasectomy during a pregnancy or at the time of the birth of their last child suggests that information and, where requested, counselling about vasectomy would be an appropriate component of antenatal and post-partum care.

Dissatisfaction with other methods

Lack of satisfaction with other methods was a reason some couples in each of the countries gave for choosing vasectomy. It is interesting that this was an important issue for couples who had previously used contraception, as had most of the Mexican and US couples. In countries where previous contraceptive use was less common among those in the sample, eg. Bangladesh and Kenya, fear of the side effects of other methods was a reason for choosing vasectomy. Many of the Mexican couples had discontinued use of other methods due to side effects, and dissatisfaction with other family planning methods was an important factor in their decision to obtain vasectomy. Fear of the side effects of female sterilisation was another factor for a few of the couples in each of the countries.

Male respondents in Mexico expressed concerns about other methods that were typical of those expressed in the other countries as well, for example: 'Pills bothered her body', 'I don't like condoms', 'The methods for women have more complications'.[14] They also mentioned the general dislike of chemical or other interference with the body: 'My wife no longer has to go to the doctor. She can live a normal life without alterations to her body, and I can also live normal life without worries.'[14]

In the USA, in addition to citing the side effects of other methods (especially the pill), men and women also mentioned the inconvenience of other methods, which was less commonly discussed by respondents from other countries, eg. the messiness and discomfort associated with barrier methods.

Discontinuation or method change due to side effects or other causes of dissatisfaction is relatively common[1,34] and points to the need for counselling on all methods, including for clients who have opted for a temporary method. Those who are familiar with a variety of methods may be able to switch more easily from one method to another, rather than discontinue use altogether.

Vasectomy services and related practicalities

In Bangladesh, Kenya, Rwanda and Sri Lanka, health and family planning workers were among the most common and important sources of information on vasectomy and were considered a safe, non-threatening source of reliable information. The data suggest that supportive service providers have an important role in making sure that men and women are aware of vasectomy and have adequate information and encouragement to make the decision to obtain the procedure. In addition, despite the barriers that exist in terms of information and access to services, providers gave these men and women information about vasectomy as a possible option for contraception which would help them achieve their reproductive intentions. These men and women chose vasectomy as the best option after deciding they were sure they wanted no more children and considering the undesirability of other contraceptive methods.

Not surprisingly, economic advantages of vasectomy over other methods were mentioned more frequently among the poorer respondents

in Rwanda, Bangladesh and Sri Lanka. Lack of accessibility to other methods and cost were also cited. As one man in Sri Lanka said: 'Those [other methods] might or might not be available when we got to the shop. If we did not have money we could not buy them and use them. But if we had the operation we would not have to think about anything so there is no problem.'[16]

Men and women in all countries excluding the USA reported that vasectomy was a more practical option compared to female sterilisation because the woman could not be spared for the few days that her recovery would take – there would be no one to watch the children. This was especially an issue in families with small children. One Mexican man said: 'If she had [tubal occlusion] I would have to take time off my job to take care of her.'[14] Another from Sri Lanka said:

'[Vasectomy] is the cheapest and easiest method. I am strong, there were no after-effects and no problems for our sex life; on the other hand, the female operation is time consuming, there are some after-effects and they [women] get ill afterwards for some time. So I think this is best and I like to tell the others too.'[16]

In the USA convenience was more of a concern. Many USA couples considered the length of recovery from a tubal ligation inconvenient: 'It is major surgery. It's supposed to be a lot less invasive for a man than a woman. Men recover very quickly, the woman has a couple of days of very bad discomfort.'[13]

These findings suggest that for clients who are interested in permanent contraception, family planning counsellors should encourage couples to discuss which partner can best be spared from their responsibilities for the recovery periods needed for sterilisation and to explain the minimal time needed for recovery from vasectomy. This type of information would enhance clients' abilities to make choices based on their individual and family needs.

Sexual roles and relationships

In Kenya, Mexico and Rwanda, some men talked about the advantage that vasectomy protects against pregnancy with more than one sexual partner. In Kenya and Rwanda, women also mentioned this as a factor. In one case, a man had suggested female sterilisation to his partner, but she told him to have a vasectomy because she said she suspected that he had other partners. Some men explained that since they were in polygamous marriages, vasectomy was very practical. Others were more concerned about preventing pregnancy with a casual partner. One Rwandan man said: 'I can go out and have fun and not have to worry'[18] while a Mexican man stated, 'I did it as security for myself, in order not to have more children here, there, children everywhere.'[14] In Kenya, some men said fear of pregnancy with someone other than their current partner had been a concern. This concern had led two of the couples in the sample to have both a vasectomy and tubal occlusion.

Men who have multiple partners (and their partners) would benefit from STI/HIV counselling. Yet none of the men or women in any of the countries cited the lack of protection against STIs as an issue or disadvantage related to vasectomy. This strongly suggests that in many countries counselling on dual protection (using one or more methods that protect against both pregnancy and infection) should become an integral component of all vasectomy programmes.

The importance placed by society on women's capacity to bear children may also make vasectomy more acceptable than tubal occlusion in some cultures. One respondent from Kenya said, for example:

'It is wise for the man to be vasectomised…if the woman has been sterilised, she will worry about her husband chasing her away from their matrimonial home and marrying another woman who will give him more children.'[17]

A woman's ability to have children is also an important factor in her status and marriageability in Asia. In Sri Lanka, two men described postponing their vasectomy until a new partner had borne a child. One Bangladeshi man hinted about the hardship that not having another child could bring on a woman in his concern for his much younger partner:

'She is still young. Almighty Allah knows that at any time I might have an accident, but she may survive; she may even be bound for another marriage. Considering all of this, we decided for vasectomy. Also, she was pregnant when we finally decided on a permanent method.' [15]

Although infrequently, a few respondents mentioned that they could enjoy sex more if they did not have to worry about contraception. One woman from the USA said: 'One of the nice things about being married with a permanent [method] is the freedom to have sex whenever you like and it's not a lot of fun to have to concern yourself with birth control.'[13]

Gender-related issues

Respondents were asked whether they thought decisions concerning the number of children to have should ideally be made by the woman, the man or both partners, and what their actual practice had been regarding these decisions. While most respondents felt that decisions about family size should be taken jointly, in many situations this apparently did not actually happen. In Kenya, Sri Lanka and Rwanda, the majority of couples reported that the man had decided when they had had enough children. In all countries but the USA, some of the couples reported that the man had been the one to decide on family size.

The opinion that the decision should be a joint one was not universal, however. The idea that men should make these decisions was also expressed by a few men in each country, most commonly in Rwanda. In Bangladesh and Sri Lanka, there were some men and women who felt that the man should be the one to make the decisions concerning family size. One Rwandan man commented: 'I made up my mind, I informed my wife and she accepted. Why should she have refused? I am the head of the household.'[18] Only infrequently was the opposite view represented. Two of the Kenyan women said they felt that decisions about family size should be made by the woman, both because the woman customarily makes such decisions and because it is the woman's health that suffers from childbirth.

The extent to which women take an active role in discussing and supporting their partners in the decision to have a vasectomy also varied considerably both within and between countries, as with other reproductive decisions. Not surprisingly, where women felt they had little say in reproductive decisions in general (eg. Bangladesh and Sri Lanka) they were also not very active participants in the vasectomy decision. In Kenya, Rwanda, Mexico and the USA, the women were participants in the vasectomy decision. In these four countries, most couples had discussed the vasectomy decision before the operation and in several cases, it was the women who first suggested the operation to their partners. Similarly, in these four countries, men and women both reported that the woman had been more supportive of having a vasectomy than family and friends.

The women respondents in most of the countries indicated that suggesting vasectomy to a man was a delicate matter and had to be handled with diplomacy. One Rwandan woman commented: 'He is the one who [first suggested it], because I would not have dared to. I used to think that he would not want to do it, but when I heard him talk about it, I was very glad, because he would not be able to give me another child.'[18] However, the men frequently reported that once they made the initial suggestion their wives were very enthusiastic. In Mexico, the men thought that their wives were more influential in the decision than the wives themselves thought.

Nevertheless, a few women in Kenya and Mexico reported that they had no problems suggesting vasectomy to their partners. For example, one Mexican woman said: 'We started thinking "Should you have the operation or me?" I asked him, "From what I hear your operation is easier and quicker. With good rest, you can recover quickly without any danger."'[14] About half of the couples in the USA reported that the woman was the first to suggest vasectomy, a greater proportion than in the other countries. Discussions had taken place over a relatively long period of time, and several couples mentioned that initially it had been brought up jokingly: 'Before it was more or less a little tease. You know, "Well, you get the vasectomy", and then he was the one who really brought it up.'[13]

Within the movement to encourage constructive male involvement in sexual and reproductive health, women are being encouraged to talk to their partners about reproductive health and services. Given that in some places men have higher fertility than women[35] and that in some countries and cultures women can suggest vasectomy to their partners, women could potentially serve as a link between their partners and services.

In Bangladesh, many of the women were not consulted by their partners prior to the operation

and they had very little information about it; two of them were not at all happy that their partners had had the operation when they found out. In fact, in Bangladesh the men frequently did not even tell their partners about the vasectomy: less than half the men said they had spoken with their partners about vasectomy prior to obtaining the operation. Most of the women did not know when their partners had sought information about vasectomy, and many were not told about the vasectomy itself until some time afterwards.

Several women in Sri Lanka also reported that their partners had not discussed the vasectomy with them, although their partners claimed to have done so. When asked who had been most supportive of the decision to have a vasectomy, few Sri Lankan and no Bangladeshi men mentioned their partners. In Sri Lanka, women saw their role as less important; only one woman mentioned herself as a source of support to her partner in the decision.

The women's attitudes towards vasectomy were also a factor in how active they were in the decision-making process. Women were more often worried about potential side effects of vasectomy than were their partners. Not surprisingly, women who had not discussed vasectomy with their partner before the operation and had not been exposed to vasectomy information were more likely to be worried than women who had more information. The majority of men and women in all of the countries reported that women were in favour of their partners obtaining vasectomy the first time they discussed the issue. After the vasectomy, almost every woman respondent reported she was pleased that her partner had obtained a vasectomy, in that it lessened the burden on them.

Service providers could strengthen women's ability to support men's decision to a greater degree by giving women more information and suggesting how to raise the issue in a non-threatening manner, eg. in a light-hearted or joking way. In more difficult situations, women could be given information to give their partners and could suggest they meet with a service provider, as some of the Bangladeshi women had done.

Future considerations

Although this was a small, non-representative sample and the results are not generalisable, it is striking that there were so many similarities across countries. There is a strong need for additional research on attitudes towards male contraception and couple communication on all reproductive health issues. While cross-cultural studies such as this one highlight similarities and interesting contrasts, it is important that programme planners and others obtain the opinions of more of their clients and potential clients in order to plan appropriate programmes. It would also be useful to obtain quantitative information from larger surveys to ascertain whether the opinions and behaviour found here are present more widely.

Discussions with other researchers suggest that with cross-national analysis of qualitative data such as ours, problems related to the accuracy of the translations (especially where two translations are necessary) are common, even though the literature has not reflected this very often. For example, the use of translations which cannot be verified by the analysts limits any sense of comfort with using quotes. In one study this difficulty was circumvented, in part, by having all of the local researchers meet together to work on the analysis;[3] where feasible, we highly recommend this.

Among the respondents in all of the countries in this study, the women spoke less than men in these open-ended interviews. They were less knowledgeable about vasectomy and possibly less comfortable expressing their opinions. However, the women corroborated findings which might have been less believable coming solely from the men, eg. men's concern for their wives' health, and greatly enriched the analysis. It was important to learn that there was a high degree of concordance between partners, and the cases in which women's reports did not agree with those of their partners were also telling and useful. Future research into methods of contraception should consider both men's and women's perspectives whenever possible.

It would be useful to know how couples communicate about these issues and how they make other reproductive health-related decisions. Operations research could be used to assess the effectiveness of couple-focused counselling. In addition, as has been shown

elsewhere, men and women seem to have limited awareness of the potential risk of STIs following either a tubal ligation or vasectomy,[36] and service providers may have a limited view of the needs men and women have in terms of other reproductive health services once childbearing has been ended by sterilisation.

This study clarifies some of the issues which affect the vasectomy decision and the dynamics surrounding the decision. Further, the results illustrate the existence of differing roles and levels of participation of women and men in the countries included in this study. Health care providers in reproductive health programmes need to acknowledge the existing power relationships within partnerships, as well as within society, in the provision of information and counselling services about contraceptive options.

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Women's Views and Experiences of Hormonal Contraceptives: What We Know and What We Need to Find Out

Anita Hardon

This paper is a review of studies on the acceptability of the hormonal contraceptive methods used most extensively in family planning programmes worldwide: the pill, injectables and implants. It aims to elucidate women's views and experiences with these methods, and how they use them. Studies show that women dislike taking a pill every day and fear the effects of hormonal methods on their health. Given the high discontinuation rates found for the oral pill and three-month injectables, there appears to be a demand for further development of new and existing methods, so that they need not be taken daily and will cause minimal menstrual disturbances, such as once-a-month injectables and pills, and early abortifacients. To better understand users' views of hormonal contraceptives, more studies are needed that focus on women and their changing needs for fertility regulation, shedding light on their preferences, experiences and practices.

THE pill was the first effective hormonal contraceptive method to come on the market and soon became a very popular means of fertility control. Researchers and manufacturers have since developed new delivery systems for hormones: injectables, implants, IUDs and rings. This paper is a review of studies on the acceptability of the hormonal methods that have been used most extensively in family planning programmes worldwide, based on a systematic search in the Popline and Medline databases and a review of women's health literature.[1]

Only women's views and experiences are covered, not those of men or health workers, because I chose to focus on the people who actually take the pills or have the injections and implants. To date, only a prototype hormonal contraceptive for men exists, and there was only one acceptability study on men's experiences with that method.[2] In their role as husbands and partners of women users, men of course condition the acceptability of hormonal methods, as do health workers who inform women of their contraceptive options, prescribe the methods or administer them. While not focusing on these actors, I will draw attention to any findings on how they affect women's views and contraceptive practices. Ultimately, I am interested in finding out from existing data how fertility regulating technology can be modified to fit people's diverse needs better.[3]

Limitations of existing user perspective studies

Available data on women's views on and experiences with hormonal methods are limited for various methodological reasons. First, studies generally focus on users' views of the methods, and not on the views of non-users. Second, most studies rely on surveys. There is a lack of qualitative studies that aim at generating more in-depth understanding of how people use or do not use hormonal contraceptives, what their views of the methods are and their experience using these methods.

Third, very few measures of contraceptive use have been developed. Most studies relate acceptability of methods to (dis)continuation rates, defined as the percentage of users who continue or stop using a method after six months, or one or more years of use. Where users' experiences with methods are described, they usually concern perceived side effects and reasons for discontinuation. For contraceptive

pills, patterns of non-compliant use are commonly described. However the reasons for non-compliance are rarely studied systematically.

Fourth, studies rarely describe how women choose between the different contraceptive options, what they see as the relative advantages and disadvantages of each method, and how their preferences are related to socio-economic and demographic variables such as their educational status, age and actual vs. desired number of children.

Lastly, existing studies rarely deal with the way in which the health service context of a study shapes women's experience with and views on the methods. Studies report on the effects of methods, but not on what women were told about the methods in the first place. They report extent of non-compliance but not whether users were told how to use the methods adequately. Most of these studies have been done in settings where quality of care is relatively good, eg. in university clinics or health centres located in urban areas. This is especially true for implants and injectables, which went through pre-introductory trials before being included in family planning programmes. As a consequence, comparatively little is known about acceptability of the methods in less adequate health care conditions.

Women's preferences among hormonal methods

Although many new contraceptives have been developed in recent decades, demographic and health surveys (DHS) conducted worldwide show that the hormonal pill is still the most popular contraceptive method. In 21 African countries, 10 countries in Asia and the Near East, and 9 Latin American and Caribbean countries, the contraceptive pill was the most preferred method followed by injectables as the second most preferred method, though injectables were preferred by more women in Africa than in the other two regions *(Table 1)*.[4,5]

These aggregated data ignore differences between countries and within countries, but they do draw our attention to the continuing importance of the contraceptive pill. It is therefore strange that few studies have examined qualitatively why women opt for the contraceptive pill in such large numbers. One exception was in St Vincent in the Caribbean[6] where women of different ages liked the pill because it was easy to use, highly effective, and could be used to regulate menstruation.

Table 1. Percentage women who intended to use selected hormonal methods in the next 12 months.[4]

Region	Number of Countries	Intention to Use	
		Oral Pill	Injectables
Africa	21	39 per cent	27 per cent
Asia and Near East	10	30 per cent	15 per cent
Latin America and Caribbean	9	27 per cent	11 per cent

More studies provide information on what women see as advantages of the longer-acting hormonal injections and implants. An introductory trial in Singapore, for example, compared attitudes towards contraceptive implants and injectables[7] and found that current and former users perceived the long duration of implants positively as compared to the shorter three-month duration of injectables. A qualitative study in Mexico revealed that women considered once-a-month injectables 'less troublesome' than oral contraceptives and more convenient than three-monthly injectables. Features most often cited in favour of injectables were their effectiveness, lack of rumours about side effects, the possibility of secrecy and ease of correct use.[8]

In Bangladesh and Thailand three-monthly injectables have been widely used in the family planning programme. An early evaluation of the Bangladesh programme in 1979, stated that people like injections better than pills, and that convenience, effectiveness and suitability for lactating mothers were factors contributing to their popularity. In Thailand, the 'freedom from fear of forgetting' pills, the ease, convenience and high effectiveness were the attributes considered positive, that explained its popularity. In Indonesia, where the largest number of implant users worldwide are found, the main reasons reported for selecting implants were that they were long-lasting and convenient.[9] *(Table 2)*

Table 2. Reported Reasons for Preferring Selected Hormonal Methods

Pill	Injectables	Implants
• ease of use	• convenience	• convenience
• effectiveness	• effectiveness	• effectiveness
• regulates menstruation	• secret use possible	• long duration
	• suitable for lactating women	
	• freedom from fear of forgetting the pill	

Why women discontinue methods

In light of data showing that women highly value hormonal methods for effectiveness and convenience, it is surprising that around half of the women who start using hormonal pills and injectables stop using them within 12 months.[4] Discontinuation rates are much higher for injectables and the pill than for the implant Norplant,[10,11] for which the reported one-year discontinuation rates are from 5 to 18 per cent.[12] Why?

In one university family planning clinic in Nigeria, there was a big difference in continuation rates between the contraceptive pill and Norplant; after 12 months of use, the continuation rate for oral contraceptive users was only 27.7 per cent, while for Norplant it was 93.7 per cent.[13] A field survey in Bangkok found that after 12 months only 47 per cent of those who chose the pill and 39 per cent of those who chose the injectable were still using the same method, mainly due to disagreeable health effects.[14]

Reports on these differentials tend to conclude that because of high continuation rates Norplant is a relatively acceptable method of contraception. However, the data on Norplant have been gathered in introductory trials; under normal programme conditions, continuation rates are likely to be lower. Further, the women choosing implants may differ from those using injectables and pills. The latter may be using these methods for spacing purposes, while the former may be using the method as an alternative to sterilisation, or for longer-term contraceptive purposes. Indeed in the Nigeria study, Norplant users were found to have more children and a higher educational level than oral contraceptive users. The authors suggest that Norplant was being used as an alternative to sterilisation, while women who still wanted more children were choosing the pill.[13]

Furthermore, the higher continuation rates for Norplant may indicate that some women are not easily able to have the method removed, as suggested by a study on acceptability of Norplant by Zimmerman et al:

'In all four countries there were reports that removal on demand did not occur to the satisfaction of the user. Women participating in the clinical study, who asked for removal because of irregular bleeding, experienced the greatest difficulty, as clinicians often suggested waiting to see whether the menstrual flow would normalise....In Thailand, because of the cost of the method, women are routinely informed when choosing Norplant that the implants are appropriate for long-term spacing and will not be removed for minor side effects.'[15]

Health concerns

A substantial number of women taking the contraceptive pill in many different socio-cultural settings fear its effects on their health. Apart from wanting to try for a pregnancy, side effects are the most important reason for discontinuation of hormonal contraceptives and are therefore an important focus in user studies of these methods, especially the pill.

The most commonly reported side effects are headaches, dizziness, and weight changes. Other health concerns appear to be more context dependent, such as heart palpitations, weakness or decreased libido. It is not possible to draw conclusions based on existing studies of the range and variability of reported side effects of hormonal methods, because the methods used differ. A multi-country study, using uniform methods and with the explicit objective of assessing women's experiences with hormonal methods, would need to be done for more insight into these issues.

In the Netherlands, for example, 58 per cent of a random sample of 1200 women aged 20-40 felt that taking a pill everyday was not healthy.[16] Two-thirds of the women who were actually using the pill during the study reported that they

had had adverse effects. Those mentioned were headaches, weight gain, bleeding irregularities, decreased libido, depression and fatigue. Ex-pill users emphasised that by discontinuing the pill, the complaints stopped. In Matlab in Bangladesh, reported side effects such as dizziness, nausea, headache and general weakness were major reasons for discontinuing the pill.[17] When a lower-dose pill was introduced, it was discontinued less.[18] In the Sri Lanka study,[10] women mentioned nausea, vomiting, headaches and dizziness as caused by the pill. In Thailand, respondents mentioned reduced menstrual flow, heart palpitations, headache, dizziness, and weight loss as side effects.[19] Perceptions of the pill among urban women in Rabat[20] and Cairo[21] were that it affected blood pressure and caused heart palpitations, weakening of the entire body and dizzy spells. In three cities in Brazil (Fortaleza, Recife and Salvador) around 80 per cent of pill users and non-users found the pill annoying and difficult to take every day and considered it harmful. Many respondents reported side effects such as headaches, weight gain and dizziness (60-70 per cent).[22]

Side effects of headaches, dizziness and weight changes have also been reported for the longer-acting progestogen-only injectables and implants, but changes in bleeding patterns are the main problem with these methods and an important reason for discontinuation, occurring in around two thirds of users.[23,24,25] The type of menstrual changes vary: either no bleeding, irregular bleeding or spotting, or heavy/prolonged bleeding.

Inconsistent use

Health concerns about hormonal methods may often lead to discontinuation of use. When methods are administered by the user, such concerns can lead instead to inconsistent use, such as forgetting to take the pill. (Inconsistent use is not reported for injectables and implants.)

The contraceptive pill must be used according to a fixed regimen of one tablet per day. Some are taken for 21 days with 7 pill-free days before the next packet is started; others are used with no pill-free days between packets. There is a lot of evidence that women are using the pill inconsistently.[26]

One systematic study of this problem[27] measured non-compliance with oral contraceptives in rural Bangladesh by observing at the household level the number of pills remaining in packets. Unexpectedly high levels of non-compliance were found: in one study area, 56 per cent of women took too many pills and 34 per cent too few; in another study area, these figures were 35 and 30 per cent respectively. Though the study was not designed to investigate the causes of non-compliance, a few in-depth case histories are given, which indicate that under-use of pills was partly related to taking a pill only when the husband was around. Other reasons for under-use were lost or damaged packets, visits to relatives who disapproved of contraception, and illness. One or two women were found to be taking too many pills, ie. two per day to alleviate menstrual problems, apparently following advice from health workers that it would control breakthrough bleeding.

A more recent study in Bangladesh[17] found that although most women knew they should take one pill per day, and two pills if they missed one, 16 per cent of urban women and 2 per cent of rural women did not think it was necessary to take a pill when their spouses were absent for less than 30 days. Problems related to the transition from one packet to the next were also reported: 53 per cent of respondents thought they had to wait for bleeding in order to start a new packet.

In Colombia[28] of 341 women, only 42 per cent reported having taken the pill correctly and consistently during the previous two weeks. Reasons varied: 10 per cent said they had run out of pills. About 43 per cent had missed a pill at least once during the cycle and not made it up; these women gave such reasons as the absence of their partner, irregular sexual activity, attempting to reduce side effects, or trying to make their supplies last longer by taking a pill only every other day. While 88 per cent of users did know that they should take a pill daily, many did not know what to do if they had missed a pill. Further, 47 per cent of women using the method incorrectly also made errors in moving from one pill packet to the next, partly due to confusion caused by the availability of more than a dozen different types of pill, including 21-day and 28-day packets.

Maynard Tucker reported in 1986[29] that rural Quechua-speaking Indian women in Peru often

started taking the pill on the wrong date, forgot to take them for a few days or quit in the middle of a cycle because they 'did not feel good'. They also tended to forget to go to the health post every month for a new supply. Taking too few or too many pills can cause or aggravate bleeding disturbances and also lead to other physiological reactions, such as headaches or nausea. These consequences of incorrect use are hardly mentioned in the studies reviewed here, the emphasis being on the impact that incorrect use has on effectiveness.

Anthropological studies: understanding women's perceptions and experiences

Published studies also tend to focus on issues that are of importance to programme administrators and policymakers, rather than to contraceptive users themselves. There is little understanding of the range and variation in views, experiences and use of the methods, and it is impossible to draw conclusions about the relative advantages and disadvantages of the pill, injectables and implants as perceived by women in different socio-cultural contexts. Clearly, for example, inconsistent use of the pill is related to the extent and quality of counselling provided by family planning providers; this is not elucidated.

A few anthropological studies do provide a deeper understanding of users' views and experiences of hormonal contraceptives. These may affect contraceptive practices women engage in, based on fears that may be widely shared, such as fear of infertility. In 1980, few women in Iran were willing to use the pill to space their children until they had enough children, as they feared the pill would cause infertility, which they related to the diminished flow of menstrual blood.[30] A pervasive notion in a Sri Lanka study was that the pill caused side effects because of its 'heating' effect, and burned up vitality and strength so that a pregnancy could not be started; they thought it might cause permanent infertility because of this as well.[31] In the more recent Bangladesh study, 33 per cent of respondents also thought that the pill would prevent them from ever having any more children.[17]

Anthropological studies of fertility regulation indicate that women value regular menstruation, and have shown that the consequences of menstrual disturbances are far-reaching. Menstruation is an important event in any woman's life. The meaning attributed to menstruation and its absence can affect, among other things, cooking procedures, sexual interaction and religious practice.[30,32,33]

Women in many different societies have perceived delay or absence of menstruation as unhealthy.[34] In Colombia, loss of bleeding has been seen as a sign of illness,[35] and among Chinese Malays[36] irregular menstruation is believed to be unclean and bad for women's health, and as in other parts of Malaysia requires remedies to ensure onset of bleeding.[37]

Amenorrhoea also means that women do not know if they are pregnant or not. If they are not adequately warned about this effect of hormonal methods, the absence of menstruation can lead to much anxiety that they are pregnant.

Anthropological studies have also shed new light on other reported side effects. In most quantitative studies, it has been assumed that the methods have a universal physiological effect that is the basis for what women report and, indeed, there are obvious similarities in these reported effects. Dizziness, weight changes and headaches are very common for the pill as are bleeding disturbances for the implant and injectables. However, there are also cultural differences in reported adverse effects, suggesting that these effects not only reflect some underlying physiological disturbance, but also that the technology can act as a screen on which people project feelings, anxieties and the like.[30,31] For example, one woman complained of becoming thin due to the pill:

'What became apparent over time was that the woman was using a somatic idiom of distress to...communicate to us problems she was having with her husband....The woman's anxiety was articulated vis à vis the weakness-thinness idiom ...which allowed her to...communicate that she was feeling powerless in her situation as well as in her body.'[31]

Disorders such as heart palpitations, weak nerves and short tempers are sometimes attributed to the pill by respondents, and also to other stresses experienced by women, such as sexual intercourse, pregnancy, childbirth, child-rearing, poverty, worry and grief. These symptoms can be a physiological expression of

feelings of anxiety and ambivalence associated with contraception and sexual intercourse, fertility and infertility, and the stresses of women's lives.[30]

Non-prescribed use of contraceptives: safe and unsafe

Anthropological studies can also draw attention to indigenous practices involving non-prescribed uses of contraceptives, which are in congruence with culture-specific notions of efficacy and safety of the methods.[38] In Iran, women who were aware of the fact that the pill causes amenorrhoea when used continuously, have taken it to prevent ritual impurity from menstruation during Ramadan or on a pilgrimage to Mecca.[30]

In Colombia and Jamaica, some women take up to a month's worth of pills at one time, to induce a miscarriage when they are pregnant, as they know it can cause bleeding.[35,39] They buy the pills over the counter in pharmacies, without medical advice or guidance, learning how to use them from friends. Similarly, in the Philippines, high-dose oestrogen-progestogen drugs on the market for treating bleeding disturbances, were being bought over the counter and used routinely by women to induce abortions when their periods were less than a month or two overdue.[40] Women believed that the bleeding could cause an abortion, yet there is no scientific evidence that such drugs work as abortifacients. In fact, they only induce bleeding if the woman is not pregnant. If she is pregnant, these drugs could lead to birth defects.[41]

Women's needs as a point of departure

In the 1990s more and more studies are taking women's health needs and autonomy as a point of departure, often conducted by researchers connected to women's health organisations. Such studies emphasise gender dynamics, and the quality of care provided by family planning services as factors in women's use of contraception and their views on it. These studies are usually qualitative in nature, and quote women's views and experiences extensively. As Widyantoro comments:

'*Survey results are the bones of any topic; the 'flesh' comes from listening to people with direct experience.*'[9]

To illustrate the problem of continuous bleeding with a hormonal method, for example, Widyantoro quotes a woman who explained why her husband was furious when she suffered from continuous bleeding with Norplant. Not only was he worried about his wife's condition, but also she was reluctant to have sex with him. He could understand that, but the bleeding disturbed their relationship and made both of them worried and depressed.[9]

Another example is a study in the Philippines, which aims to document the dynamics of fertility regulation through reproductive life histories. Preliminary findings of these studies are showing how women use different methods at different points in their reproductive lives. They go through phases of wanting to be pregnant, conceiving, not wanting to be pregnant but wanting to have more children later, using fertility regulation methods, not using fertility regulation methods because of side effects, becoming pregnant, having an abortion, and so on.[42]

Challenges

Many positive attributes were associated with hormonal contraceptives according to this literature review. Yet high discontinuation rates with the pill and three-month injectables are indicative of a range of problems associated with these methods, including side effects and other health concerns. Viewing these positives and negatives together, it can be argued that there is a strong case for further development of methods that need not be taken daily and that cause fewer, and if possible, minimal menstrual disturbances. These might include once-a-month injectables and once-a-month pills. New methods such as these would help to broaden women's choices.

Once-a-month injectables came on the market in some Latin American countries as early as the 1980s, produced by local companies. A 1984 qualitative study of these methods in Mexico showed that women preferred them over three-month injectables.[8] Two newer once-a-month injectables (brand names Cyclofem and Mesigyna) each contain a combined oestrogen and progestogen, which reduces the extent of

bleeding disturbance.[43] One as-yet unanswered question is whether the need to return to a clinic monthly for an injection will be perceived as a disadvantage over a longer period of time.

A once-a-month oral pill is currently produced in China and is reportedly popular in Laos, where it is available on the private market. This pill is a combined, long-acting oestrogen and a progestogen, developed in 1967 and introduced into the Chinese family planning programme in 1978.[44] One clear advantage of a once-a-month pill is that users do not need to depend on health workers for its administration.

Apparent from anthropological studies of indigenous practices in fertility regulation is the non-prescribed use of hormones (and other drugs[45]) as abortifacients when contraceptives were not used or may have failed to work. Reports suggest that women in diverse socio-cultural settings use and value methods for inducing delayed menstruation. Post-coital hormones that can be used when menstruation is delayed or after unprotected sex may be preferred over hormonal methods that have to be taken continuously – whether daily, monthly or every three months. Further development of safe and effective post-coital methods thus also seems to be called for.

Studies by women's health advocates draw our attention to the ways in which information and advice given to women by family planning providers affect women's preferences and experiences.[46] Such studies point to related issues that affect method acceptability, such as their ability to protect women against sexually transmitted diseases, and the role of men in fertility regulation. More such in-depth, qualitative studies are needed to understand better women's and men's fertility regulation practices and their views of and experiences with fertility regulation methods. Such studies should focus not only on hormonal methods, but on all forms of fertility regulation, both contraceptive and post-coital. In sum, this review suggests that studies are needed that:

- do not focus on methods and do not take the concerns of family planning administrators and planners as a starting point, but focus on women and men and their changing needs for fertility regulation, shedding light on their preferences, experiences and practices during their reproductive lives;
- show how power relations between husbands and wives, and others in sexual relationships, affect fertility regulation practices;
- determine in what way women's and men's views on, use of and experiences with fertility regulating methods are related to the quality of services that provide the methods. Special attention is needed to the content of the information provided on the range of contraceptive methods, the quality of the interpersonal communication between the providers and users and the extent to which people trust the services;
- consider ways in which women's and men's cultural notions of fertility and health affect their use of fertility regulation methods in different socio-cultural settings;
- deepen understanding of women's and men's health concerns about existing hormonal contraceptives. Are the health concerns that women express narratives of distress, some of which may be culture-specific? Are women – between the lines – talking about fear of loss of fertility due to contraceptive methods, or about guilt for not complying with religious rules, or using contraceptives without the knowledge of their husbands? Or are they simply reporting bodily reactions to the hormones?
- reveal what trade-offs women and men make when selecting a fertility regulation method, thus eliciting the attributes of methods (including the protection provided against STDs) that they perceive as important, and revealing cultural criteria that they use to evaluate the safety and efficacy of methods.
- document non-prescribed uses of existing contraceptive methods, and traditional fertility regulation practices and how these may be linked with the practice of modern contraceptive use or non-use.

Given the difficulties of drawing conclusions on the range and variations of user views, experiences and practices, because existing studies differ in focus, objectives, and methodology, it is clear that more standardised, quantitative studies are needed to facilitate comparative analysis. Such studies should not only describe women's and men's views and use of methods, but also aim to understand their perceptions and

practices. An appropriate conceptual framework for such studies could build on the results of in-depth qualitative studies, in accordance with the suggestions above.

In-depth, qualitative studies can elaborate on attributes of methods that women and men consider important, while quantitative studies can highlight the relative importance of such attributes in different socio-cultural settings. The attributes that people value or are concerned about do not occur in a vacuum. They are related to the health care context and the culture in which people live. A greater understanding of the way in which quality of care affects people's fertility regulation practices, and more profound insight into people's health concerns can not only help us to understand the attributes of methods that people consider important, they can also contribute to improved counselling in family planning services, and consequently more informed choice and more appropriate use of fertility regulation methods.

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Is the Diaphragm a Suitable Method of Contraception for Low-Income Women: A User Perspectives Study, Madras, India

TK Sundari Ravindran and Sumathy S Rao

A qualitative study carried out among low-income women in Madras, India aimed to document women's experiences using the diaphragm. The 97 participants were highly motivated and resourceful in overcoming obstacles to effective and consistent use. The absence of negative health consequences was the most important aspect of their very positive experience with the diaphragm. Control over use and discontinuation of the method were also important factors, given the overwhelmingly provider-controlled context of family planning services in India. These attributes counted favourably also with the women's husbands, who were almost all supportive of using the method. Most of the women intended to use the method for spacing their next pregnancy or until they went for sterilisation, mostly 18 months to two years. The generally low frequency of sexual intercourse among them made a coitus-related method preferable to one that had to be used 'all the time'. Making the diaphragm available in India would represent a definite expansion of contraceptive choice for low-income women.

THE diaphragm is not available in India, not even through private sector and non-governmental service providers. The method had been introduced briefly in the Indian Family Planning Programme during 1951-56, but the lack of necessary sophistication among the women who used the diaphragm was found to hamper use-effectiveness. With the arrival on the scene of the more effective IUDs, the provision of diaphragms through the state-sponsored family planning programme was discontinued.[1]

This paper reports on a study examining user perspectives on the desirability of the diaphragm as a contraceptive method in low-resource settings, and women's ability to use the method correctly and consistently under circumstances of limited privacy and lack of basic amenities. The study was motivated by concern over the limited choice of methods, and the high degree of provider control characterising the Indian family planning programme. To most Indian women, 'family planning' is synonymous with 'female sterilisation'; less than five per cent of women in the reproductive age group use modern contraceptives for spacing pregnancies.[2]

Studies have shown that fear of side effects is among the major reasons why Indian women are reluctant to use the IUD and the Pill.[3-5] The diaphragm – as a user-controlled, birth spacing method with relatively fewer side effects – could help Indian women to be less dependent on providers and a boon to low-income women for whom the service delivery system is often hostile to their needs.[6,7] On the other hand, according to the few existing studies in developing countries, the acceptability as well as effectiveness of the diaphragm is low.[8-10] For example, a recent study among low-income women in São Paulo showed a high rate of discontinuation (46 per cent) within the first three months of use.[11] It is also generally believed among scientists and programme managers that women living in poor, overcrowded housing, without easy access to water and with little privacy, might face great difficulty in using methods like the diaphragm or vaginal foam.[12] Given the specifics of the Indian context, including the legal availability of abortion for contraceptive failure, would the diaphragm be a viable spacing option for women in low-resource settings, if they had adequate information on

method use and were provided with good quality services? This was the issue this study sought to explore.

Study area and methodology

The study was carried out in the city of Madras, the capital of Tamil Nadu, a southern Indian state which has witnessed a rapid decline in fertility during the 1980s. According to the National Family Health Survey (1992-93) the state's total fertility rate was 2.5 in 1992, much lower than the national average of 3.4 for the same year. Fifty per cent of women in the reproductive age group (15-49 years) were practising contraception in 1991, and 45 per cent were using a modern method. More than 80 per cent of those using a modern method of contraception had undergone sterilisation. The state is well known for the high level of motivation among women to have no more than two children. In both urban and rural areas of the state alike, more than 75 per cent of women with two living children did not want any more children in 1992.[13]

This study was carried out from January to December 1995. Three non-governmental family planning clinics participated in the study. Two of these were out-patient facilities providing a wide range of gynaecological services, while the third had in-patient facilities where abortions, deliveries and sterilisations were carried out. All three clinics catered to a conglomeration of urban, low-income settlements.

The study consisted of two phases. In the first phase, the diaphragm was introduced as a method of choice and offered by all three clinics. What was different about the methodology we adopted was that information and counselling on the diaphragm were not provided in the clinic setting, but in the communities from which the clinics' clients were drawn.[14] Another distinctive feature was that all the field staff were themselves urban, low-income women who had prior experience working in community-based women's development programmes. Counselling and education as well as data collection in both phases of the study were carried out by them. The women trusted the field workers and the information they received, and were also willing to share with them information on intimate aspects of their personal lives. We believe this was because of who the field workers were and their regular contact with diaphragm users throughout the study period.

The field workers conducted a series of health education sessions with groups of women, and individually counselled women at their doorsteps. Women were assured that in case of method failure they would be assisted with obtaining a medical termination of pregnancy, if they desired, at no cost to them.

Those who continued to be interested in using the diaphragm were invited for a fitting in one of the three clinics, where they were also given detailed practical guidance by the gynaecologist on how to insert and remove the diaphragm, and how to wash and store it. Women who were contra-indicated because of reproductive tract infection were provided with free treatment and invited to return after it was completed.

A baseline, questionnaire-based survey was carried out in the three communities to collect information on socio-economic characteristics and contraceptive history of all currently married women in the 15-49 age group. The clinics maintained records on women who started using the diaphragm. The survey and clinic records together provided information on the characteristics of diaphragm users. Ninety-seven women who started using the diaphragm in March-April 1995 were included in the study.

The second phase consisted of a weekly follow-up at the homes of all diaphragm users, over a period of six months. This was to help them deal with any practical problems they had in using the diaphragm and to refer anyone with health problems to the clinic. During October 1995, six to seven months after the women had begun to use the diaphragm, all ever-users (except one woman who had moved to another city) were interviewed in depth. This was intended to gain an understanding of the logistics of using the diaphragm in a situation of limited privacy; practical concerns and problems facing diaphragm users, and ways in which these were tackled; spouses' attitudes and reasons for cooperation (or lack of it); reasons for discontinuation; and users' views on which women they thought would find the diaphragm a useful addition to the range of contraceptives currently offered by the family planning programme.

Follow-up interviews were conducted by the same field workers who had carried out the counselling and health education, as well as the base-line survey. These took place in the women's

homes, at times of day when they could be interviewed in private. The interviews usually consisted of two or three sessions on consecutive days, and lasted for about half an hour per session. They were guided by a list of major issues to be covered, but followed the flow of conversation and were open-ended. All interviews were tape-recorded, and any written notes were made only after the conclusion of the interview.

This paper reports on findings from the second phase of the study, on users' experiences with and views on the diaphragm after six to seven months of use. A detailed report of the first phase is published elsewhere.[15]

Profile of diaphragm users

Two hundred and twenty-two women indicated their desire to use the diaphragm in the baseline survey. Of these, we were able to provide diaphragms to only 97 women.[16] These represented nine per cent of all potential users in the study area at the time (ie. all users and non-users of reversible methods). Twenty-six of the 97 women had previously used another reversible method: the Pill (4), condom (4) or IUD (18), and had discontinued using it.

All diaphragm users were low-income women, and the majority (91 per cent) lived in houses with only one room and a kitchen. Nearly two thirds of them did not have a bathroom or toilet at home. Thirty-five per cent were illiterate, and 46 per cent had up to eight years of schooling. Less than two per cent had post-secondary education. Most of the women (89 per cent) were not engaged in paid work outside the home, and were married to manual labourers (85 per cent). The majority were young: 60 per cent were 15-24 years old, and 25 per cent were 25-29 years old. There were no nulliparous users. Most of the women had one (68 per cent) or two (25 per cent) living children.

Only two of the 97 women planned to be long-term users of the diaphragm. Sixty-eight women planned to use it for 18 to 24 months to space their next pregnancy, and 27 intended using it for less than a year, essentially as a stop-gap before sterilisation.

Women's experiences

At the end of six to seven months, one woman had moved to another city, and 92 of the remaining 96 women were still using the diaphragm. One woman had undergone sterilisation after using the diaphragm for six months, and a third had stopped using it because she wanted another child. Two others had discontinued use after the first couple of months, one because it was the wrong size and the other because it was perforated. Both women practised periodic abstinence until we were able to replace their diaphragms (in October 1995). Despite this lapse, none of the women became pregnant during the six to seven month period. None of the women reported any health problem associated with diaphragm use although the numbers are too small and the duration of use too short to draw conclusions from this.

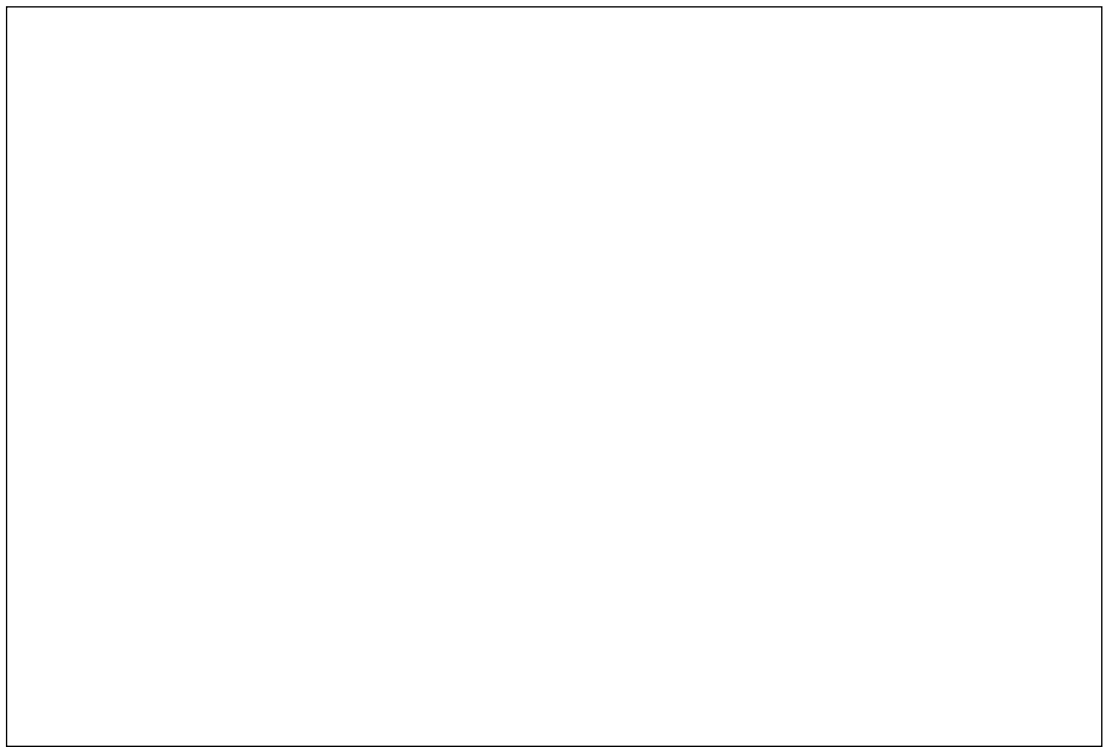
In some respects, women's experiences with using the diaphragm in this study were similar to those reported from many other parts of the world.[17,18] This included initial apprehensions about insertion and removal of the diaphragm and fear that it could get lost inside them.

'*When the doctor put the diaphragm in, I lay there wondering if this method was right for me... would I manage to put it in and take it out all by myself? [When I inserted it myself] for a moment, I could not locate it inside. Such panic! I thought it had got lost inside, I almost burst into tears. What had I let myself in for? What if this requires a major surgery to remove? The doctoramma (lady doctor) asked me to relax, she said if I couldn't find it, she would. Then I tried again, and found it.*'

However, the women in this study were overwhelmingly positive about the diaphragm, and their narratives contrast sharply with the low acceptability and negative attitudes reported in other studies.[8-11,17,18] Women's high level of motivation to use the diaphragm, and their resourcefulness in overcoming numerous logistical problems, ensuing from their lack of facilities and resources, are evident in their responses.

Insertion and removal

A few studies[10] as well as prior experiences with the diaphragm in India have indicated that women from low-resource settings might find diaphragms too complicated to insert and remove. It is also generally believed that women from some cultures find it unacceptable to have to touch their own genitals. However, women in



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this study did not have much difficulty in learning to use the method correctly, and did not feel uncomfortable about inserting or removing the diaphragm.

The women initially received step-by-step instructions on how to insert the diaphragm from the physician who carried out the fitting, and each of them practised insertion and removal in the physician's presence. Most women practised insertion two to three times over the next couple of days, and were comfortable with it thereafter. After six to seven months, all the women said that it was an easy method to use. They knew it was in place by feeling for a sensation like touching the tip of the nose (as the physician had taught them); if the diaphragm was not properly in place, they could sense it because it felt uncomfortable. If properly inserted, they said, they were never aware of its presence.

Cleaning and storage

Despite the lack of access to running water, none of the women mentioned any difficulties in cleaning or storing the diaphragm. They washed the diaphragm in tepid water when they had their baths, wiped it with a soft cloth, powdered it and stored it in the box that came along with the diaphragm.[19] This they put away in a cupboard, or in their 'trunk' boxes (their only place for storing clothes and valuables) away from the reach of children and the prying eyes of neighbours and relatives.

'Messiness' not a problem

A reservation often expressed about diaphragm use is the need to use spermicide with it, and a number of diaphragm acceptability studies show that women consider the use of spermicide messy.[20-22] In a recent study in Brazil, women who used the diaphragm continuously, without a spermicide, removing it once a day for washing, were compared with those who used it with spermicide at the time of intercourse only. The continuation rate among non-users of spermicide was significantly higher than among spermicide users.[23] Unfortunately, existing data are not sufficient to be able to recommend non-

use of spermicide with the diaphragm.

However, in this study all the women said they preferred to use the diaphragm with spermicide. They found it easier to insert the diaphragm with the spermicide, 'like slipping on a bangle after soaping the wrist'. A few mentioned the effectiveness value of spermicide as important for them.

Another reason why diaphragm use is considered messy and unclean is that women cannot always wash themselves immediately after sexual intercourse.[10] Again, this was not an issue for women in the present study since most users did not have a bathroom at home, and could not have managed to wash themselves after intercourse whether or not they used the diaphragm. Most of them were able to bathe (in the public tap or in a common facility) only after finishing all their household chores in the morning, which was usually at least eight hours after sexual intercourse. They then removed the diaphragm for washing at the time of their morning bath.

Overcoming logistical problems

The women in this study were highly motivated users and displayed great ingenuity in finding the means to use the diaphragm consistently.

Insertion of the diaphragm involved careful planning. Those who had a bathroom of their own (or even just a thatched enclosure near the house for bathing) inserted and removed the diaphragm there. These are as a rule not attached to the bedrooms but located outside the house. Those living in nuclear families and having only infants or small children had no difficulty, but those in joint families or having school-going children had to make sure that they could take their diaphragm boxes to these bathrooms without drawing attention to the fact.

'My mother-in-law does not know. I have to watch out when I take the diaphragm to the bathroom.'

'When there is a crowd of relatives, it is not easy to find a moment when I can go off to insert the diaphragm. Someone or other is constantly around, watching, observing, talking, asking questions....Or there is so much work to do, there is no breathing space and then it is too late.'

Those who had to use a common bathroom inserted the diaphragm at home, closing the door as if to change or re-drape their sarees. They removed it in the bathroom the next morning when they went for their bath.

'I have only one room and we share a common bathroom with four other households. I wait till the children are in bed. Then I put it in, in the common bathroom.'

According to the users, having to use a public bathroom did not pose any specific problems in terms of washing or keeping the diaphragm clean. One of the women retorted when asked about it:

'How do you imagine we manage our (menstrual) periods, washing the pads and all that, with no 'private' bathrooms? We know how to take care of such things.'

Consistency of use and sexual life

Diaphragm use is perceived as relatively inconvenient and interfering with sexual pleasure because it has to be used before every act of intercourse.[17,21,22] Although frequency of intercourse is likely to influence people's attitudes towards the diaphragm's convenience, few studies provide information on this aspect from users' point of view.

Ninety women reported having used the diaphragm every single time they had sexual intercourse. Low frequency of sexual intercourse was an unexpected finding from the in-depth interviews. All but five women reported that they had sexual intercourse once a week or even less frequently. The highest frequency was four times a week, reported by only one of 96 women. This was contrary to beliefs that young married couples are likely to have more frequent sexual relations.

'We don't have sex very often. My in-laws live with us, and we have two children. We share two rooms between us, but there is no guarantee that we'd (my husband and I) have a room to ourselves at night. Sometimes even when we have privacy, one of us is dead tired and not in the mood.'

'My husband works in a tea shop and returns at 2 am. He is usually exhausted. Moreover, I have to wake up at 4 am to store water, because after 5 the

taps go dry. We rarely feel up to it.'

'My husband has another wife. He comes here only once or twice a week.'

'The baby is often sick and at other times we are very tired.'

Sexual intercourse was not only relatively infrequent, but rarely unplanned. There was usually a mutual understanding between the couple as to when they would have sexual intercourse: a specific day of the week, often when the husband had his day off work, or signals such as the husband bringing home flowers or sweets. The women had been instructed to insert the diaphragm as early as six hours before sexual contact.[24] They could therefore insert it at a convenient time in the evenings on the few days when sexual intercourse was anticipated. In the few instances of higher coital frequency, women inserted the diaphragm every evening.

In fact, having to use the diaphragm only 'as and when necessary', unlike the Pill which had to be taken every day, and the IUD which is 'always inside the body' was mentioned as a positive characteristic of the method.

Six women reported episodes when they were unable to use the diaphragm; five of them resorted to standby measures to prevent unprotected intercourse. Two women had forgotten to take the diaphragm with them when they went away from Madras; one of them abstained from sex, while the other used condoms. One woman whose husband's work involved erratic hours, making the timing of sexual intercourse unpredictable, had convinced him to use the condom after a couple of episodes of unprotected sex. Two others lived in joint families and on some days it was impossible to find the privacy to insert the diaphragm. Both these women kept condoms as a standby for such days. The sixth woman could not always insert the diaphragm in advance, and said her husband would not always wait till she had put it in, leading to instances of unprotected intercourse.

Support from partners and others

Eleven per cent of the urban, low-income women in the diaphragm acceptability study in São Paulo reported that partners' complaints were the reason for discontinuation within the first three months of use.[11] In contrast, women in this study had a great deal of support and cooperation from their husbands. While most of the women had asked for their husbands' consent prior to beginning diaphragm use, even those who had not sought permission did not face opposition.

'I decided on my own. It is me who has to bear the burden (of pregnancy). I went to the clinic and got the diaphragm, and then told him. He didn't oppose.'

According to the women, their husbands could not feel the diaphragm during intercourse. Since the women usually inserted it well before sexual contact, their husbands had no complaints about the method interfering with intercourse. The men's willingness to use the condom as a standby on days when the diaphragm could not be used, speaks of their own commitment to avoiding unwanted pregnancy.

There were a few instances of lack of support from husbands. One woman whose husband was an alcoholic was still using the diaphragm after six months without his knowledge.

Two women reported active support for use of the method from their mothers-in-law. We do not know if this was true for other women, because this was not among the questions we asked the women.

'I have two daughters, so she wants me to try for a son, but only two or three years from now. She is opposed to the Copper-T, because everyone says it will make me sick. That would mean additional work for her, and also expenses for her son. So she thought this might be a good option.'

Limited contraceptive options

It is usual practice for family planning clinics in Madras (both public and private) to offer the IUD as the method of first choice for women who wish to space their second pregnancy. The Pill is offered far less frequently; from the programme managers' point of view, the need for obtaining regular supplies makes it user-dependent and therefore a less effective method. The male condom is rarely promoted because the family planning programme is part of the MCH pro-

gramme and has little direct contact with men.[25] Consequently, a large proportion of women in Tamil Nadu (as elsewhere in India) who wish to space their next pregnancy do not use any modern contraceptive method.

The National Family Health Survey in 1992 found that, while more than 50 per cent of women in Tamil Nadu with one living child expressed a desire to postpone their next pregnancy, only about 12 per cent were using a modern spacing method. Given the high level of motivation to restrict family size, induced abortions were therefore the usual means of spacing births; Tamil Nadu had the highest rates of induced abortions in the country.[13]

Lack of contraceptive options perceived to be safe for spacing pregnancies may have been an important consideration governing the women's decision to try a method that was new to them, such as the diaphragm.

'After my first child, I became pregnant the fifth month following delivery. I did not know I was pregnant, because my periods hadn't come. So I had an abortion in the fifth month. I became pregnant very soon after, and had another abortion in the third month. By the time my daughter was 15 months old, I was pregnant for the third time. This time around, I could not terminate it, I was too weak and sickly.... Immediately after delivery, I asked for IUD insertion. But I became very sick. I cursed my fate, my birth as a woman. I was using nothing for a while, till I heard about the diaphragm.'

Former Pill and IUD users had had very negative experiences with these methods, and suffered numerous health problems. In the absence of other options for spacing, many of those who had discontinued these methods were not using any other method of contraception until the diaphragm became available.

'I used to feel giddy and nauseated constantly, and have frequent headaches, when I used Mala-D (brand of Pill). So I discontinued and did not use anything, till you came along and told us about this [diaphragm].'

'First I used the Copper-T. It did not agree with me, I had white discharge and pricking pain in the stomach that didn't go away. I went to the hospital for removing it. They said I will be alright with some tablets, that I should not remove it. Then after a few days, the white discharge started again. This time I went to a private doctor and got it removed. Then I started using Mala-D. To my pricking pain and white discharge were now added giddiness and chest pain. I used to ache all over, my joints, my back....I stopped using that too. My husband was using Nirodh (brand of condom) but sometimes he would not feel like it. That was when you came along, and took me to the doctor for treatment for white discharge. Now [using the diaphragm] I have no health problems as with the other [methods].'

Women who had been using condoms had switched to the diaphragm for various reasons: lack of convenience, irregular condom use by the husband, and in the case of one woman, method failure leading to an unwanted pregnancy, which she terminated.

'We used Nirodh. But disposal was a worry each time, we live in a single room amidst several other single-roomed tenements. This is definitely better.'

'I became pregnant even though my husband was using Nirodh. The doctor said that sometimes they are old stock and have holes, and that's how this may have happened. I had an abortion, and after that I started using the diaphragm.'

Lack of options also made for a high level of motivation among users, who were determined to use the diaphragm consistently:

'I will never forget [to use it]...I have three daughters, and have suffered so much owing to side effects of the Copper-T and the Pill. Then you helped me get treated for it. I have now been using it for so many months, and my health is better. Will I ever risk forgetting?'

Dissatisfaction with other spacing methods was also an important reason why the women's husbands supported diaphragm use.

'My husband has spent tons of money because the Copper-T caused me so many health problems. Then when I had it removed, I got pregnant and had to have an abortion, which again cost money and affected my health. He was really worried about my health, and was glad to find there was an alternative.'

Characteristics considered positive

The single most frequently mentioned reason for satisfaction with the diaphragm was the absence of negative health consequences. Practically all the women mentioned this as the most important reason why they and their husbands liked the diaphragm.

The user-controlled nature of the diaphragm was also important from the women's perspective. Women almost always mentioned that it could be used 'as and when necessary,' and that 'no *doctoramma* (lady doctor) was needed' to remove or insert it after the initial fitting. Women who had wanted to discontinue IUD use had often had to seek private medical help and spend considerable amounts of money. The fact that they could stop using the diaphragm without having to put up with family planning programme personnel trying to 'convince' them to continue with it made the diaphragm a comparatively lower risk option than the IUD.

'I hesitated for a moment (when I went for the diaphragm fitting). Then I thought about what else I could do. The IUD didn't suit me, and I had had it removed it. Then every month passed in fear of whether I might be pregnant. It was like standing on a thorn… So I thought, let me try this, if it is not good, I can always stop using it any time.'

Absence of side effects and user control were also mentioned with reference to husbands' support for the method.

'[He supports]… because this is not always inside my body, and can be used when necessary, and does not affect my health.'

Service delivery factors

Service delivery factors contributed significantly to women's positive attitude to the diaphragm. They liked having been given detailed information about the diaphragm, and not having been pressured in any way to accept it:

'As a result, only those of us [the women] who really felt the need for it came forward to use the method.'

They appreciated the time spent by the physician in teaching them how to insert the diaphragm, and especially the kindness and patience shown. Many of them had been afraid that the *doctoramma* would 'shout' if they made mistakes or did not learn fast enough and they were very grateful to be in a caring setting.

Follow-up visits by the field workers made a difference to their confidence and willingness to try out a new method, as also did the help some had received in getting treatment for reproductive tract infections and other health problems. Our experience indicates that it may not be necessary to have weekly follow-up visits after the first month of use. Monthly visits would suffice provided the women knew the dates and times of these visits in advance, and were assured of courteous service from the family planning clinics for any health problem which they thought was related to diaphragm use. Other reasons included:

'It is free [of cost]… They [the field workers] come regularly, and will take us to the doctor if we have problems. They have said that abortion will be provided free if we get pregnant.'

Suitability of the diaphragm for themselves and other women

Based on their personal experiences with the method, users identified women who were in similar situations to their own as likely to benefit greatly from diaphragm availability. This included women who had negative experiences with other spacing methods and/or were contraindicated for sterilisation; women who for a variety of reasons needed a waiting period before they had a sterilisation; and women with a low frequency of sexual intercourse. The women in this study usually avoided sex to prevent unwanted pregnancy while they were breastfeeding. This often led to marital conflicts, and sometimes violence from men. In this context, the diaphragm was seen as a safe alternative to abstinence. According to one woman with a three-month old infant:

'When I got the diaphragm, I thought, now I will have peace of mind, no need for fights every time he wants sex.'

Women's perceptions of the diaphragm's suitability were based exclusively on the need to

prevent unwanted pregnancies. Risk of sexually transmitted infection (STI) was not a factor in the women's evaluation of the diaphragm, even among those whose husbands had more than one partner. This may be because STI was uncommon and HIV practically unknown in their communities. Thus, women whose husbands had other partners were also mentioned as being suited to diaphragm use.

Regardless of any stereotypes or assumptions about the capabilities (or lack of them) of women from low-resource settings, the women in this study were confident that effective use of the diaphragm did not require sophistication, education or facilities beyond the basics. In fact, some even said that this was a good method for women like themselves.

'I am not educated, I am poor but I have learnt to use the diaphragm well. I think anyone who wants to can learn to use this method.'

'It all depends on the woman's "samarthyam" (cleverness, ability to convince her husband, level of motivation).'

There was evidence of a very high level of all of these among the women.

Conclusions

The extent of the women's positive response to the diaphragm as a contraceptive method of choice was far beyond our expectations. Several of the problems identified by studies from other developing countries were not an issue here. This may be because of the specific characteristics of the setting. Contraceptive prevalence was high in the communities where the diaphragm was introduced. The women were highly motivated and keen on spacing their next pregnancies or not having any more children. Women in this position who were not using a method had in all likelihood not found any other available methods suitable for them. In addition, some women were using methods they were not very happy with, for want of a better option. More importantly, many women were looking for a spacing method to use for a limited time period of one to two years. The diaphragm represented a clear expansion of choice in this situation.

Given the conditions of poverty in which the women lived, we had worried that the diaphragm might expose them to unnecessary health risks. The women proved themselves more than capable of dealing with aspects of use we believed might be very problematic: lack of privacy or a bathroom at home, need for support from the husband and so on. This study makes clear the need for eliciting the point of view of experienced users on the suitability of contraceptive methods rather than making assumptions on their behalf.

Absence of negative health consequences was more important to the women than any other feature of the method. Further, the generally low frequency of sexual intercourse made it more desirable for them to use a method that was coitus-related rather than not. In addition, given their experiences with the family planning services, control over insertion and removal was for them a very important consideration. Another point to be noted is that women were able to give this kind of informed opinion on the method only after having used it for some time. It is doubtful whether abstract discussions on the characteristics of the diaphragm would have elicited the same response.

A second follow-up of the diaphragm users was carried out in August-September 1996, roughly a year and a half after the women had begun to use the diaphragm. A second woman had moved to another city and could not be followed up. In all, 67 of the 95 initial users we could find were still using the method. Seven had undergone sterilisation as initially planned, and one had switched to the IUD because she was not happy with the way the diaphragm fit. Fourteen had discontinued using it because they wanted another child; all of them had used the method for as long as they planned to, and their 'discontinuation' was not related to lack of acceptability.

Six women became pregnant during use, that is, they had experienced 'failure'. All were women who had been using the diaphragm for spacing. It could not be ascertained whether their pregnancies were a result of method failure or inconsistent use, as they gave contradictory responses. However, despite our offer to pay for an abortion if they wanted one, all six women chose to continue with their pregnancies and have a sterilisation afterwards. Their pregnancies were wanted, even if they had happened a

little earlier than they might have liked.

The evaluation of the diaphragm both among the women in this study, and among others in the community with a spacing need, remains positive, and there is continuing demand for it.

Making the diaphragm available in India would meet the needs of women who have not found a more appropriate method given their specific circumstances, from among the reversible methods now available. This would, however, call for investment in terms of education and follow-up of first-time users, as well as improvements in the quality of service delivery in general. The keen interest on the part of community-level health workers from the government family planning programme in this area in making the diaphragm available to their clients (as evidenced in a recent meeting we held to disseminate the findings of the study) suggests that this may be worthwhile to attempt.

Community health workers make regular domiciliary visits to women's homes for a number of reasons. Given appropriate training, they should be able to integrate the diaphragm into the range of contraceptive methods offered without a great deal of additional effort. Improvement in the quality of clinical services provided in the health centres may prove to be far more difficult.

Considering the increasing incidence of HIV infection in India and given that the diaphragm has not been shown to offer any protection against HIV, is the investment of resources in its reintroduction justified? We would argue that the answer is yes, because the way ahead lies not in restricting but in widening women's contraceptive options, and at the same time making the best efforts to reach all women with the information necessary for them to make informed choices.

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Notes and References

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Contraceptive Choices: Supporting Effective Use of Methods

Joan Walsh

Recent research in Britain confirms that women's decisions about which contraceptive to use depend on a range of factors, but are still a case of finding the 'least worst' option. A representative sample of 744 women aged 16-49 were interviewed in 1995 about their reasons for choosing different methods and for changing from one method to another. They were asked to rank the factors that had been relevant at the time according to importance. While experience of high efficacy were reported as both relevant and important by the majority of respondents, most had also taken into account ease of use, information received, effect on sexual relations, professional advice, partner preferences, whether a pregnancy was soon intended and other issues. Women gave a wide range of responses when asked to identify the single most important factor in their most recent choice, based on their experience and expectations of methods. Providing accurate and impartial information, offering practical solutions to practical difficulties and access to a full range of methods, is the key to improving effective use, surely the most meaningful proxy measure of 'user satisfaction'.

For contraceptive providers, understanding how and why women make contraceptive choices is important. Minimising the likelihood of unintended pregnancy depends on maximising user satisfaction, user effectiveness and continuation of use, by providing the method that is truly the method of choice – for that individual, and at that time.

'The methods of fertility regulation from which most couples choose represent a choice among unpleasant alternatives. The choice is not so much a positive discrimination but a negative one, in that the methods not chosen are even more disliked than the method that is chosen. The contraceptive methods most people use are therefore the least unpleasant of an unpleasant set of alternatives. However, it is most important that this realistic summary is set against the other reality that consumers greatly prefer the available range of methods to no method at all.'[1]
(Robert Snowden)

Although the range of reversible methods of contraception available in the UK is greater now than when Robert Snowden researched 'consumer choices' in family planning more than a decade ago, recent research suggests that the choice of contraceptive remains a matter of finding the 'least worst' option, rather than of making a positive choice.

In November 1995 the Contraceptive Education Service (run by the UK Family Planning Association and the Health Education Authority) commissioned the British Market Research Bureau International, an independent market research company, to conduct research among women about their contraceptive choices and their access to contraceptive information. A total of 744 interviews were carried out during the first two weeks of December 1995 with a sample of women aged 16-49 years. All the interviews were conducted face to face in the woman's home by appropriately qualified women interviewers. Parental permission was obtained to interview women aged 16-17. Potential respondents were identified using a random location sampling technique based on electoral wards, and were selected for interview if they had ever used a reversible method of contraception, regardless of their current contraceptive use.

Respondents were asked a wide range of questions about contraceptive choice and information, including:

- which reversible methods of contraception they had used, and for how long,
- which sources of contraceptive information they had used,
- which factors had influenced their contraceptive choices, both those relating to their individual circumstances and the perceived characteristics of different methods,
- which health professionals they had gone to for contraceptive advice and services, and which they would prefer to approach if they were experiencing difficulty with any method,
- whether, when last choosing a method, they had been given information about the range of contraceptive options available to them,
- whether, in retrospect, they were satisfied with the amount of information they had received about their chosen method, and
- which way they believed was the best way to get information about contraception from a health professional – verbally, in writing or both.

Choice of method

At the time of the interview, just over half of the respondents were using a reversible method of contraception, with 22 per cent using combined oral contraception, 16 per cent the male condom, 6 per cent progestogen-only oral contraception and 4 per cent an IUD. Other methods (diaphragm, cap, implant, natural family planning, female condom, the intrauterine system and withdrawal) were used by less than 5 per cent of the sample. Thirteen per cent of the women interviewed had been sterilised or had had a hysterectomy, 14 per cent reported that their partner had had a vasectomy, and 22 per cent said they were not using contraception at the time of the survey. (These figures compare closely with available national data, suggesting that the sample was not atypical with respect to contraceptive use.)

Among the 371 women not using a contraceptive method at the time of the interview, oral contraception, male condoms and IUDs were the methods most likely to have been used most recently (by 49 per cent, 28 per cent and 12 per cent of women respectively). Twenty-six per cent of all the women interviewed had only ever used one reversible method of contraception, 40 per cent had used two methods, 21 per cent had used three, 8 per cent had used four and 5 per cent had used five or more different reversible methods. As might be expected, older respondents tended to have used more reversible methods than younger ones: for example, one in five women aged 16-24 years had used three or more reversible methods, compared to one in three of the older respondents.

More than three quarters (77 per cent) of the women had used the combined pill at some time, and nearly two thirds (63 per cent) had used male condoms. The progestogen-only pill had been used by 26 per cent, the IUD by 19 per cent and a diaphragm or cap by 11 per cent. Thirteen per cent reported having used withdrawal. Of the women using male condoms for contraception at the time of the survey, 55 per cent reported that their most recent different method of contraception was combined or progestogen-only oral contraception. Of those using oral contraception at the time of the interview, almost 29 per cent reported having most recently used male condoms for contraception.

Factors influencing choice of methods

Information about factors which might influence women in first choosing a method of contraception, or in changing from one method to another were investigated using the 'shuffle pack and sorting board' technique. Respondents were asked to select and rank various factors according to relevance and importance. Two packs of shuffle cards were used, one covering possible disadvantages of different contraceptive methods ('negative' factors), and one covering possible advantages ('positive' factors).

Respondents who had at some time changed contraceptive methods were asked to think back to that time (or to the most recent time if they had changed methods more than once) and to identify the reasons why they had decided to change methods *(Table 1)*.

Relevance of 'negative' factors

The two most relevant factors each applied to over half the sample, and each was health-related – actual experience of side effects or health problems (which applied equally to women of all ages), and worry about perceived health risks (which applied to a higher proportion of younger

Table 1. Reasons Why Respondents Had Changed Method Most Recently

Reason	Per cent (%)
I experienced side effects/health problems	56
I was worried about health risks	53
Method difficult to use correctly	49
I received new information about effectiveness, side effects or health risks of method	48
Method not effective enough in protecting against pregnancy	46
Method caused me heavy, painful and/or irregular periods	44
Method required doctor's prescription	43
Health professional advised against use of method	42
Method interrupted spontaneity of sex	41
Method unpleasant to use	38
Believed method unsuitable while preparing for pregnancy	33
Partner didn't like/wouldn't use method	33
Became pregnant unintentionally while using method	30
Friends/relatives advised against use of method	29
Method too short/long acting	29
Method too expensive	26

Base: all respondents who had previously used a different method (449)

than older women). It should be noted, however, that the wording for this factor included the example of 'sexually transmitted diseases', which might have been more salient to the younger age group.

Women who changed from using oral contraception to another method were experiencing side effects or health problems (65 per cent), worried about health risks (63 per cent) and had received new information about the method (54 per cent). This survey was conducted after the 'pill alert' in the UK in the autumn of 1995 regarding the risk of venous thromboembolism and use of the progestogens gestodene and desogestrel in combined pill formulations.

The main reasons respondents gave who changed from using condoms to another method were 'method interrupted spontaneity of sex' (69 per cent), 'method not effective enough in protecting against pregnancy' (61 per cent), 'method difficult to use correctly' (60 per cent), 'method unpleasant to use' (60 per cent) and 'partner didn't like method' (53 per cent).

Respondents were asked to rank the factors which they had identified as applicable in order of importance. Experiencing side effects or health problems was identified as being by far the most important reason influencing respondents' decisions to change contraceptive methods. Forty-four per cent of all the women who had changed methods said that experiencing side effects or health problems was a very or quite important factor in their decision. Worry about health risks, doubts about the effectiveness of the method in preventing pregnancy and receiving new information about a method were the next most important reasons, each considered as very or quite important by one in three women who had changed methods.

One in four (24 per cent) of former pill users reported that finding the method difficult to use was a very or quite important factor in their decision to change methods. More than one in four (27 per cent) of former pill users and over a third (36 per cent) of former condom users reported becoming pregnant unintentionally while using the method. Of those who became pregnant unintentionally while using the pill, 57 per cent cited this as a very or quite important reason for changing their contraceptive method. Of those who became pregnant unintentionally while using condoms, 68 per cent cited this as a very or quite important factor in their decision to change.

Perceived benefits of new method

Respondents were given a shuffle pack containing nineteen cards with possible reasons to choose a contraceptive method *(Table 2).* Absence of side effects and health problems again emerged as the factor relevant to most women, joined this time by a belief that the method would be more effective in preventing pregnancy. As before, respondents were asked to rank those factors identified as relevant in order of importance. The most highly rated, positive factors cover the same issues as the most

Table 2. Reasons for Choosing a Contraceptive

Factor	Per cent (%)
Expected method not to cause health problems	78
Expected method to be more effective in preventing pregnancy	77
Expected method to cause fewer or less unpleasant side effects	75
Expected method to be easier to use	73
Method does not interrupt sex	70
Method free of charge	70
Expected lighter, less painful and/or more regular periods	69
Less concerned about health risks	68
Method less unpleasant to use	66
Health professional suggested this method	65
Believed this method to be more natural	60
Method longer/shorter acting	54
Method available from pharmacist without prescription	49
Method recommended by friend/relative	44
Method available from supermarkets/shops	44
Believed method to be more suitable preparing for pregnancy	43
Partner suggested changing to this new method	42
Read/heard about newly available method	41
This method more suitable around menopause	38

Base: all respondents (744)

important negative factors – side effects and/or health problems, health risks and effectiveness in preventing pregnancy.

The most important factor

Having identified and ranked the 'negative' and 'positive' factors which were relevant and important to their contraceptive choices, respondents were asked to identify which of the factors had been the most important in making their decision about which contraceptive method to use.

Among the respondents who had only ever used one reversible contraceptive method (and who had therefore rated only the 'positive' factors), all the factors except two ('method recommended by friend or relative' and 'read or heard about newly available method') were identified by at least one respondent as being the single most important factor.

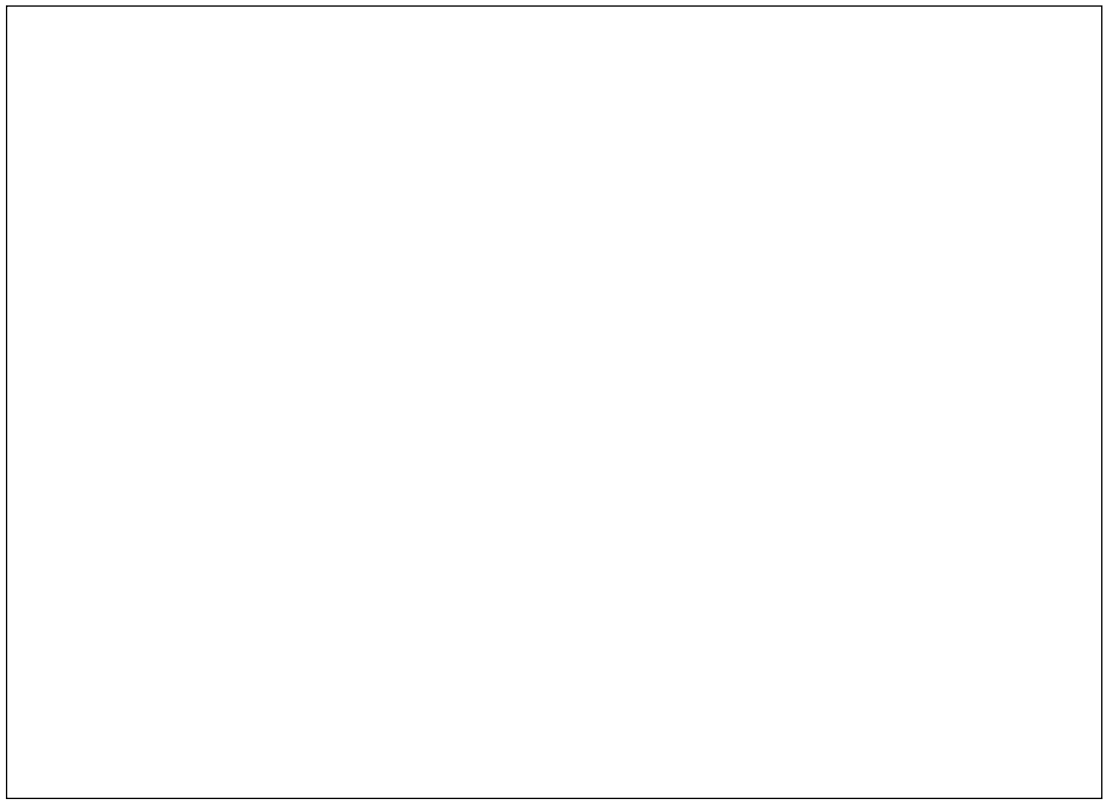
Among women who had previously changed from one contraceptive method to another, all but two of the 35 factors ('method too expensive' and 'method recommended by friend or relative') were named as the single most important factor by at least one of the respondents.

The majority of factors which women identified as being most important were 'negative' factors – that is, the most important factors in women's decisions about changing contraceptive methods were reasons for abandoning previous methods. The factor most commonly cited as being the single most important one was contraceptive efficacy. This could either be interpreted as dissatisfaction with the previous method or as a positive expectation of the subsequent method.

Information sources and resources

In the UK, contraceptive pills are available only by doctor's prescription but condoms are widely available from a wide range of retail outlets as well as from family planning and sexual health facilities. All the women interviewed were asked which health professional, if any, they had first approached to discuss their most recent choice or change of contraceptive method. Nine out of ten (89 per cent) had approached a health professional; and the majority had first approached a general practitioner (family doctor). This included all the women using the contraceptive pill at the time of the survey, as would be expected. It is notable that 71 per cent of those using male condoms for contraception reported having approached a health professional to discuss use of the method.

All respondents who had approached a health professional were asked whether, looking back, they felt they had received enough information about the method they chose to use. Overall, nearly three quarters (73 per cent) said that they were satisfied. Women aged 16-24 were less likely to be satisfied than older respondents: 67 per cent of women in this age group were satisfied with the amount of information,



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compared to 77 per cent of those aged 25-34 and 73 per cent of those aged 35-49.

Satisfaction also varied according to how much the respondent felt she knew about her chosen method before approaching the health professional; 61 per cent of those who said they knew 'nothing' felt they had received enough information, compared to 82 per cent of those who said they knew 'a lot'.

Satisfaction was highest among those who reported that they had been given information about alternative contraceptive methods, and those who were given written information about their chosen method. When asked what they thought was the best way to get information from a health professional, respondents were overwhelmingly in favour of a combination of written and verbal information.

Likelihood of future method change

All women who had not been sterilised or had a hysterectomy were asked whether they thought it likely that they would change their contraceptive method 'within, say, the next five years'. All the women whose partners had been sterilised said that there was no possibility that they would change methods, as did three quarters of women aged 35-49 years. A quarter (27 per cent) of all respondents said it was possible that they would change contraceptive methods within five years, and 17 per cent said they would definitely be doing so. As might be expected, responses to this question reflected the age of the respondent *(Table 3)*. In all age groups, 3 per cent answered 'don't know'.

Negative choices: implications for user satisfaction

Research suggests that people make decisions between available options by balancing perceived gains and losses to themselves and to significant others, including gains and losses of 'approval'.[2,3] Decisions are influenced by the judgements people make about the effectiveness

Table 3. Were They Likely to Change Methods Within Five Years

Age Group	Number of Women	Yes Definitely	Yes Possibly	No
16-24	172	23%	40%	35%
25-34	233	24%	31%	43%
35-49	242	8%	16%	74%

of 'treatments', the balance of beneficial effects and adverse effects, the risk of dependency, the impact of the treatment on daily living and the degree to which the prescribed therapy conflicts with underlying health beliefs and values.[4,5]

The client's overall level of satisfaction with the quality of care they have experienced and the effectiveness of professional-client communication has also been shown to influence decision-making.[6,7]

The evidence is that women make 'negative' choices about contraception – choosing the 'least worst' method at the outset and changing from one method to another to escape undesirable characteristics or effects. Motives for choosing or rejecting particular contraceptive methods have been found to vary in different countries, reflecting social and cultural influences, as well as service and method availability. Reasons for (not) choosing and using contraceptive methods are also highly individual, reflecting the following:

- perceptions of self and circumstances
- perceptions and expectations of different methods
- current and forseeable contraceptive needs, priorities and concerns
- the perceived likelihood of partners agreeing to use of the method
- previous experience of using contraceptive methods and services
- reasons for avoiding pregnancy and degrees of motivation.

Use of contraceptive methods is also influenced by:

- perceptions of how easy it is to use the method correctly and consistently
- the way in which method characteristics and method use are portrayed by health professionals
- whether the method provided is the method the individual intended to use
- the perceived quality of contraceptive services
- the perceived effectiveness of client-professional communication.

Where methods and services are relatively accessible, as in the UK, the primary concerns are contraceptive effectiveness and avoidance of adverse ('side') effects and long-term health risks. Dissatisfaction with adverse effects perceived to be caused by oral contraception is a commonly cited motivation for women to choose sterilisation, barrier methods or IUDs.[8]

The prevalence of negative perceptions of contraceptive methods, and especially fears about side effects and health risks, has also been shown to be associated with the choice to use methods which are less effective in preventing pregnancy.[9-13]

For the contraceptive provider, women's perceptions, experiences and interpretations of side effects of contraceptive methods matter because they certainly, although not necessarily predictably, influence the likelihood of correct and consistent use. A consensus statement produced by the International Working Group on Enhancing Patient Compliance and Oral Contraceptive Efficacy defined 'non-compliant' oral contraceptive (OC) users as:

'... women who either unintentionally discontinue use and/or do not take pills correctly. In some cases, the patient, adversely affected by factors including side effects, poor cycle control, and fear of serious side effects, may discontinue use of OCs. This may be further complicated by the patient not taking her oral contraceptive in a correct or appropriate manner. That is, she does not adhere to the manufacturer's recommended regimen, which has been determined in controlled clinical trials to yield the maximum efficacy of the formulation in question.' [14]

A number of medical factors associated with oral contraceptive 'non-compliance' and discontinuation were also identified:

- so-called 'nuisance' side effects: headache, nausea, breast tenderness, acne or weight gain;

- poor cycle control: breakthrough bleeding, spotting and/or amenorrhoea;
- fear of more serious side effects: thrombosis, stroke, breast cancer and infertility.

The Working Group also identified factors relating to the lack of client knowledge and the client-professional relationship which could contribute to non-compliance:

- women who are unsure about how to take contraceptive pills correctly being unwilling/ unable to approach health professionals
- women being unaware of the implications of incorrect or inconsistent pill use, and so not approaching health professionals for advice
- women discontinuing pill use because they experience side effects and are unable or unwilling to discuss the issue with health professionals.[14]

'Non-compliance' and discontinuation are clear indicators of extreme user dissatifaction. In the absence of such clear indicators, satisfaction (and less extreme dissatisfaction) with contraceptive methods and services is more difficult to measure. What do we mean by 'satisfied'? Are we 'satisfied' that women find their methods 'acceptable'? Given the vast array of variables in every contraceptive circumstance, is it ever possible to compare like with like?

Perhaps it is unrealistic to expect women to be positively 'satisfied' with their contraceptive method given that, on a day-to-day basis, contraceptive use is rarely life-enhancing and is often problematic. At best, contraception prevents pregnancy when you want it to, and does no harm – it is difficult to value an outcome which is a non-event, something which does not happen. When high contraceptive efficacy is taken for granted, measures of acceptability and satisfaction can only focus on other characteristics. Given that all currently available reversible contraceptive methods have characteristics which could be regarded as undesirable and which potentially make them unacceptable to a significant proportion of women, it is perhaps hardly surprising that women's experiences of contraception and their subsequent choices are essentially negative.

Choices (at least those of any consequence) are always partly negative – where choice exists, the process of making a choice inevitably includes considering and rejecting what we do not want, as well as claiming what we do want. It can be easier to recognise and articulate what we don't want, perhaps particularly when the underlying 'choice' is an absolute necessity (individually and/or culturally determined) rather than a true choice.

If the 'primary' choice, to take action to control fertility, is not really a choice at all, it may be difficult to experience subsequent contraceptive decisions and outcomes positively, to be 'satisfied'. This is not to argue that women would prefer not to control their fertility – but that women would prefer it not to be necessary. This may be why the choice of contraceptive method is likely to be a case of finding 'the least worst', regardless of any technological developments. From a clinical point of view, the key characteristics of the 'perfect' reversible contraceptive might be:

- 100 per cent efficacy in preventing pregnancy,
- immunity to user failure and provider failure,
- no clinically significant 'side' effects,
- no long-term, adverse effects on health, and
- inexpensive to produce and provide.

In an ideal world, the perfect contraceptive would also protect against sexually transmitted infections, including HIV.

From women's point of view, the situation is even more complex. Women make choices in a particular time, society and cultural context; as the CES research demonstrated, choices are complex, multifactorial and subject to change.

Certainly, a major difficulty with the currently available range of contraceptive methods is the need to make a trade-off between different methods, defining and combining 'good' features and 'bad', according to individual circumstances, perceptions and interpretations. Where there is a choice, different women take different factors into account, use different sources of information and prioritise method characteristics and effects differently.

Perhaps the notion of a perfect, more or less universally acceptable contraceptive for women is unrealistic – women's needs, concerns and (above all) their expectations and experiences of using contraception are very diverse. They may be too diverse, and too different from those of other stakeholders, to allow us ever to reach a

consensus about the meaning of contraceptive perfection and 'user-satisfaction'. In an imperfect world with imperfect methods, women develop strategies to reconcile their expectations and experiences of methods. Supporting these strategies, by providing accurate and impartial information, offering practical solutions to practical difficulties and providing access to a full range of methods, is the key to improving effective use – surely the most meaningful proxy measure of 'user-satisfaction'.

Note

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Male and Female Condom Use by Sex Workers in Zimbabwe: Acceptability and Obstacles

Sunanda Ray and Caroline Maposhere

Methods that are thought of as being women-controlled, such as female condoms, still need the willingness of men to be used in many situations. Women who are socio-economically disadvantaged have fewer skills and opportunities to negotiate for safer sex, to prevent sexually transmitted infections or unwanted pregnancies. This paper draws on issues arising from two studies conducted in Zimbabwe on the acceptability of female condoms to different groups of women sex workers and the responses they report from their partners, which found high levels of satisfaction with this method. However, technological solutions to the HIV epidemic should not distract from the reasons why many women cannot negotiate for protection from infection. The nature of relationships plays a crucial role in determining whether negotiation for male or female condom use is successful or not. Many of the mechanical obstacles to use of female condoms can be overcome by sympathetic and knowledgeable support from health workers. The role of women's support groups in orienting the attitudes of health workers and encouraging social approval for behaviour change is also essential. Significant shifts in values and ideology are needed to support women and men in changing the power balance in their relationships if good sexual health is to be achieved.

THE international call for women-controlled methods of contraception and protection against sexually transmitted infection (STI) has come from women from all walks of life, ranging from rural peasant to professional women.[1,2,3] Women-controlled methods are those that women can use for themselves without necessarily needing the cooperation of their male partners. The demand for these methods arises from the frustration many women feel, that they are unable to protect their own health and well-being. For the majority of women living in the Third World, decisions about their reproductive health are made by their male partners, their families, or health workers.[4] That a similar powerlessness is felt by women in Western societies, despite their general social and economic advancement, has also been argued.[5,6] Inherent in women's demand for more control over their own health and sexuality is that it should be accessible to women of all classes and regions. Socially disadvantaged women all over the world face more barriers to effective health care, while economic dependence on their male partners gives them less power to insist on sexual health protection. Rich women in poor countries, on the other hand, have commonly had better means of buying contraception, infertility and abortion services, at the same time as having greater resources to break out of deleterious relationships.

In many situations men are supportive of their women partners and cooperative in preventing pregnancy as well as STIs. However, while the most effective methods of pregnancy prevention are methods used by women:

'*...the HIV epidemic (has) restored to men the locus of control over the consequences of sexual behaviour.*'[1]

The hope invested in women-controlled methods is that women might be able to regain some of that independence in relation to protection against STIs. The question that has to be asked is: To what extent are methods that women use women-controlled, in that they are independent of the need for male partner cooperation?

The pandemic of HIV/AIDS in the world today has led to a frantic rethink on issues to do with

sexuality and reproductive health. Although sexually transmitted infections have caused major problems in deprived areas for generations, the emphasis has often been on treatment rather than prevention.[7] Family planning programmes have had a narrow contraception remit, rather than promoting improvement in overall reproductive health, and emphasis has been on research and provision of the most efficacious methods for prevention of pregnancy, such as hormonal contraception and sterilisation, which do not protect against STIs.

Attention has now turned to dual protection measures which protect women and men against both STIs and unwanted pregnancy. As a barrier method, condoms provide protection against both. Use of condoms is more likely to be consistent when they are being used as a dual purpose method rather than in combination with another contraceptive.[8] Contraceptive methods do not usually bear the same stigma as methods for STI prevention, and can carry more social approval, thereby legitimising their use. Family planning is much more often championed openly by key celebrities and influential figures than AIDS prevention, with notable exceptions. Promotion of condoms for STI protection, on the other hand, has the effect of labelling people who use them as candidates for infection. Protection against unwanted pregnancy can therefore be used to justify gaining protection against infection. Condom use as the primary dual purpose method, backed up by emergency hormonal contraception in cases of method failure as regards pregnancy, is emerging as the most practical and cost effective method of dual protection in locations with high HIV prevalence.[9]

Condoms most widely available to date are the conventional male variety, but recently there have been increased efforts to improve women's access to female condoms in the Third World.

Development of female condoms

Female condoms became commercially available in some European countries in 1992. By 1996, they were being marketed in more than ten countries, including Korea, South Africa, Thailand, and the USA.[10] Acceptability studies have been done on female condoms in such countries as Britain, Thailand, Cameroon, USA, Papua New Guinea, Zambia, South Africa and Zimbabwe.[10-21] In the West, these have primarily looked at their acceptability as a contraceptive method. In the developing world, where the HIV/AIDS epidemic is predominantly heterosexual, acceptability studies have focused on use of female condoms to prevent infection. These studies have shown high levels of satisfaction with female condoms among users, although a general limitation of the studies has been the short duration of follow-up.

There is an increasing demand being expressed for female condoms, so long as they are at a highly subsidised, affordable price, eg. in Zimbabwe. The private sector price of female condoms (approximately US $2.50 each) has been a major obstacle to access even for many middle-class people in the West. Although it has taken a long time for international agencies to negotiate an appropriate public sector price, there are now various initiatives underway to subsidise provision of female condoms in developing countries.[10] However, there has been little work done to date on whether better access to female condoms has reduced the extent of unprotected sex or negative outcomes.

Analysis of two female condom studies in Zimbabwe

This paper discusses some of the issues arising from two studies carried out by us in Zimbabwe on user perspectives of female condoms, as part of the Zimbabwe AIDS Prevention Project, in 1993 and 1995. In both studies the participants were provided with male and female condoms to use and information was collected from questionnaires, interviews and focus group discussions. The details of the first study have been reported elsewhere.[2] Papers describing the second study have been submitted for publication.[22,23]

Zimbabwe has been particularly affected by the HIV epidemic. Anonymous testing at antenatal clinics shows that between 15 and 45 per cent of pregnant women have HIV.[24,25] In countries such as Thailand and India, HIV seroprevalence rates in sex workers are as high as 36 to 45 per cent.[6] In the two groups of sex workers we studied, in two different towns in Zimbabwe, the prevalence of HIV was over 80 per cent. Studies in Nairobi ten years earlier showed similar rates.[26] Acutely aware of the risks they face, women in many diverse circum-

stances were asking for female condoms even before they had seen one. Acceptability studies were considered important to establish whether women who perceived themselves to be at risk of infection would be willing to use this method, and to identify the benefits and disadvantages.

The first study was carried out in three areas of Zimbabwe in 1993 with three groups of women: urban sex workers who were also peer educators, urban family planning clinic attenders and a group of rural women who were not sex workers.[2] The women's main motivation for using or trying male and female condoms was to prevent STIs, even though some appreciated the contraceptive benefits as well. More than 80 per cent of women in all three groups in this study liked the female condom fairly well or very much, over 65 per cent liked it better than the male condom and more than 70 per cent reported that their partners liked it also. The women reported that their partners liked female condoms more than male ones because they were not constricting, did not need a full erection for application, did not require removal immediately after ejaculation (as with male condoms) and because the men did not have to take responsibility for protection.

The second study focused on sex workers in Harare in 1995, who were considered to be at high risk of STIs.[22,23] Given that sex workers who were peer educators had succeeded in negotiating with their clients to use female condoms, we were interested to find out if the same were true for sex workers who were not peer educators. We found acceptability levels similar to those of the women in our first study, both among the sex workers and in the responses they reported from their partners. The main reasons given for preferring female to male condoms were that they seemed stronger and safer. The majority said they would recommend female condoms to their friends and would continue to use them if they were available. This study also investigated whether easy access to female as well as male condoms would reduce the risk of STI transmission or the number of unprotected sexual episodes. Comparisons were made between two groups of sex workers, randomly allocated to a group that was offered male condoms only and a group offered both male and female condoms, over a total study period of 10 months. Outcome measures investigated were STI incidence and unprotected sexual episodes, recorded on coital logs. There was no significant difference in STI incidence in the two groups, though the time interval between infections was longer in the group offered both types of condom. Over a longer period of follow-up, this lengthened interval between infection may convert to reduced incidence of STIs and needs further investigation. Our conclusion was that access to female condoms in addition to male condoms did not offer additional protection in this particular group of women over a short period of time.

Despite considerable need and demand for women-controlled methods, and despite enthusiasm for female condoms when they have been tried, easy access in this group of women, did not appear to give them extra protection. These findings cannot be generalised to the overall population of women at risk, since the study group was made up of sex workers and undertaken over a relatively short period of time, when female condoms had not been promoted or made available to the public. However, there are lessons to be learnt from this work which were anticipated by du Guerny and Sjoberg, who stated that:

'Female condoms are only likely to reach women who are already in a position to control their sexual relations and thus probably already in a position to insist on their partners' use of condoms.'

These authors recommend that programmes focus on 'why people have unprotected sex instead of concentrating on how to practise safer sex'.[27] This paper is about the obstacles experienced by women in using condoms in both of our studies, which resulted in their having unprotected sex in spite of condoms being an 'acceptable method' to them. Many, though not all, of these would hold true for contraceptive use of these methods as well.

Obstacles to using barrier methods

There are two kinds of obstacles to using barrier methods. The first is the nature of relationships between sexual partners. The symbolism of condom use in relationships has been widely discussed.[4,5,6,28,29,30] In particular, the different interpretations of men versus women introducing condoms into a sexual encounter reflect a

whole range of complex gender, power, and societal value statements.

The second area of obstacles is mechanical, due to problems arising from the barrier methods themselves, side effects experienced or difficulties in using the method correctly and consistently. A vital concern in this arena is that unfortunate experiences with any method undermine the success of future attempts with that method. Browne and Minichello describe these as 'condom memories' which, if negative due to unpleasant or embarrassing sexual experiences or unfortunate partner reactions, will put users off trying condoms.[5] Memories can have protective consequences as well, for instance if failure to use condoms results in an infection, users may feel more determined to use them next time.[5,28]

With any method, use becomes easier with practice, and this is particularly true of barrier methods, and true for both partners. We asked participants in our studies not to make a decision about using female condoms based on their first attempts. This was obviously problematic for sex workers who were trying them with first-time customers. Similar situations arise with male condoms even though there are assumptions that men know how to use them intuitively. One writer has pointed out that to put on male condoms according to some instructions, the user would need three hands.[31] About two thirds of the men in that study group sometimes or often lost their erection while putting a condom on. Nearly as many lost their erection during intercourse. Since such problems could discourage men and their partners from using condoms, health promoters have to find ways of advising their clients on how to deal with them.

Our second study showed a high rate of male condom breakage, which may indicate that male condoms are not being used or stored appropriately. The resulting fear of breakage led to several men wearing double condoms, an activity which has not been adequately evaluated either for comfort or safety. Sex workers in Zimbabwe have also reported concerns over frequent condom breakage in other settings, especially when condoms were used with vaginal drying agents.[32]

Commercial sex, relationships and condom use

The economic basis of the sexual relationships described by sex workers in these studies was varied, ranging from clients on a casual, one-off basis to regular clients with whom the women had more steady relationships, but still for money. Some steadier relationships may have started off on a commercial basis but moved to a non-paying relationship in which the women would still expect gifts and help with rent and food. Even though these relationships predominantly applied to sex workers, many aspects of such relationships also apply with 'other' women. Women in different parts of Africa have described how they expect money or presents in extra-marital and premarital affairs,[4,33,34,35] as a sign of appreciation or out of economic necessity, yet the women did not consider themselves to be sex workers. Although there would be an unspoken awareness that there may have been other partners, safer sex protection would not be seen to be needed because the women would not be regarded as sex workers.

Most of the women had become sex workers after being divorced or widowed, sometimes as a result of infertility, or because their husbands had taken second wives and stopped giving them money for themselves and their children. Their main hope for getting off the streets was to find men who would look after them financially on a long-term basis, even marriage. They often did not have skills or training to be able to get alternative employment other than vending. There were therefore different economic bases for their relationships with clients versus boyfriends.

In both our studies there were marked differences in the pattern of condom usage by sex workers with clients and boyfriends. In the second group, nearly 70 per cent of the women were using male condoms frequently (more than half the time) with clients, while about 60 per cent rarely or never used them with boyfriends. Use, or otherwise, of condoms was an expression of this difference in relationship. Not using a condom was an expression of trust and friendship. Regular clients who treated a woman nicely, paid well and did not show signs of infection were more likely to get sex without condoms if they wanted it, as a sign of appreciation. Clients were clearly also aware of the advantages of being a

regular customer and the difference in condom use. Some clients would insist on sex without condoms after they had visited the same woman for some time, since they felt they were now like boyfriends (and deserved the same rights).

As an extension of this, most of the sex workers reported that their boyfriends refused to use condoms with them, and they themselves often did not want to use condoms with their boyfriends. Partly this was because some were hoping to get pregnant with their boyfriends as a seal to their commitment. Partly it was a way of separating what they did to earn a living from what they did for love, and to show their lovers that they were special. This phenomenon has been witnessed internationally, where use of condoms is seen as creating the separation between commercial and noncommercial (romantic) sex.[6,30,36,37,38] Problems arose for the sex workers when their boyfriends were the source of infections (since their boyfriends were rarely monogamous) or if their boyfriends would not take responsibility for the children that were born to them. Since over 80 per cent of the sex workers in both these studies were already HIV positive, infection was shared not only with their boyfriends and clients, but also with the other partners of these men.

Power and trust

McKeganey and Barnard describe in a study in Glasgow how a strong motivation for some men to buy sex was to have power over women.[6] That power was sometimes expressed as abuse or violence, but more commonly paying for sex with sex workers gave men the right to ask for whatever form of sex they wanted. The more vulnerable the sex worker, ie. if she was a newcomer to prostitution, young or a drug addict, the more likely she was to give in to his demands.

In our studies, the transient nature of the relationships between sex workers and most of their clients undermined their ability to use female condoms effectively. The sex workers often gave up trying to introduce the female condom because they were afraid of losing business. In our second study, nearly half the women had some clients who refused to use female condoms because they did not trust these new condoms or they were put off by their appearance. Many sex workers had been using male condoms for several years, their clients were now used to them and distrusted something new. If the clients were satisfied with using male condoms, then they said they did not see the need for female condoms. Once a few men had refused to use them, the sex workers were afraid to try with others in case they lost interest.

The men's distrust of female condoms, as reported by the sex workers, was also a reflection of the distrust and contradictions in these particular relationships. Men buying sex in Harare expressed their power by sometimes withholding payment or by using violence. Both the men and the women were suspicious that the other wanted to infect them. The women often expressed this by accusing clients of wanting to make holes or tears in male condoms with their nails, so that the woman would get infected or pregnant (described as 'leaving their mark on them'). Making holes in condoms, if in fact it happens, may be another way of expressing power over the women, and is certainly perceived as such and feared by sex workers. This was one reason why the sex workers liked the fact that female condoms seemed stronger, along with the fact that the woman puts the condom in herself.

Deven and Meredith describe how unprotected intercourse is seen as:

'...a consequence of the male-female power distribution, the training of men to be aggressive and the persistence of gender roles that define the male as the sexual initiator, and the female role as establishing the sexual pace and limits.' [39]

Other writers have also commented on the traditional role of women as the gatekeepers of morality,[5] and the contradictions between male expectations of power, authority and control, with women trying to assert themselves to ensure safer sex and male compliance with this.[5,6] In this context, a sex worker trying to negotiate for use of a female condom would be perceived as too assertive, too threatening. The search for power in relationships by men who may be socio-economically powerless in other ways is an issue that must be faced in order to understand the spread of the HIV epidemic in poor communities. Campbell, in describing the sexual identities of South African miners, refers to the irony that:

'The very sense of masculinity that assists men in

their day-to-day survival also serves to heighten their exposure to the risks of HIV infection.'[40]

There was more opportunity for negotiation with those regular clients with whom the women were able to communicate and persuade to try female condoms. Some women reported that when they persisted, their clients were more willing to try female condoms and with experience, the men sometimes expressed a preference of female to male condoms.

Differences between sex workers in the two study groups

The sex workers who formed one of the three groups in our first study were much more able to introduce female condoms to their clients than those in the second study. The former were part of a peer educator programme which included promotion of condom use and negotiating skills. They were therefore already part of a support group, had more confidence about refusing unsafe sex, and tended to rely on more regular customers for their income. Their clients were more likely to trust that they were not trying to infect them. The latter group were not organised in the same way. Though some had support from other women in the same brothel, they were very vulnerable to exploitation. In our focus group discussions with the women, several who had been long-standing sex workers mentioned that fewer men were coming to buy sex than in the past, because of fear of AIDS. They thought that clients who were still coming possibly had HIV infection already, and that this could explain their adamant refusal to be protected.

The women felt that the responsibility to initiate safer sex was their own, since they were the ones with many partners, but although some said they would refuse sex without condoms, many recalled times they had had unprotected sex because they were desperate for money and were offered more for sex without a condom.

The Glasgow study shows that although clients believed HIV to be very widespread amongst the sex workers they frequented (higher than it actually was), hardly any of them felt at personal risk of infection. The basis for their optimism was the belief that they could identify which women were likely to be infected, by their appearance or where they were working.[6] In Singapore investigators found that sex workers were only successful in persuading half the clients they negotiated with to use condoms.[41] In separate work that we did in Harare with the clients of sex workers, we found a high level of denial about risk from unprotected sex; the men did not make realistic assessments of the level of risk in the situations they were in. For instance, the association of youth with being free from infection led one man to have sex with a 17-year-old sex worker without a condom. Several men also spoke of 'trusting' their partners (including women they paid for sex) to be infection-free, without taking the precautions necessary to ensure this *(unpublished data).*

Negotiation for safer sex

Dowsett describes the ability to have safer sex as being about making decisions and sticking to them when feelings for another and the heat of the moment challenge resolve.[42] This description conjures up images of sex characterised by passion and abandonment. In the context of sex work in Zimbabwe, safer sex usually depends more on the ability to convince partners that it is in their mutual best interests to use a condom, without changing the basis of the relationship. Yet the very act of proposing condom use by women introduces an assertiveness and confidence that sex partners may not welcome. Programmes which focus on encouraging men to take more responsibility in ensuring safer sex, sometimes inadvertently reinforce the desire for women to be passive in these relationships.

In both our studies, we found that the same barriers that prevented women from negotiating for male condom use existed for female condoms also. Even though female condoms are thought of as 'woman-controlled' because women put them in themselves, clearly the willingness of partners is needed in most instances.

One sex worker (in our second study) vividly described being told to take her condom out and to get a male condom, which her partner trusted more. Insofar as she was economically dependent on that transaction taking place, it was difficult to refuse. If she had the support of the other sex workers in the block, so that the man knew he could not get what he wanted elsewhere, she would have more power to assert herself; peer support for safer sex is a powerful lever for change.[6] If this woman's clients did not

know that she was using female condoms, such as when they were too drunk to notice, she could get away with it. If, however, she got a reputation amongst the clientele for using female condoms, she might only get customers who liked them, which may have been safer for her, but might also mean less money coming in.

This woman was still protected since her partner used a male condom. Yet our research showed, and her example is indicative of why, access to female condoms along with male condoms did not seem to offer extra protection for this group of sex workers. Those who could negotiate for condom use may already have been maximising their opportunities with male condoms. Those who could not negotiate for male condoms may not have been able to negotiate for female condoms either. Circumstances mentioned in which they could use female condoms without their partners consent were mainly when their partners were too drunk to use male condoms or too drunk to notice, in other words, situations in which there was no need to negotiate use. These were also situations in which it would not have been possible to use male condoms, so female condoms would have had additional benefit, as the only possible source of protection.

Many of the women in both studies perceived as a benefit of female condoms that they could be used when men refused to use male condoms. However, whether or not they could actually use them depended on why their clients were refusing male condoms. If the man found male condoms uncomfortable, he might appreciate the benefits of female condoms as an alternative. If he had other motivations, for instance if he was paying for sex to escape from the need to use protection, it would not matter whether an alternative was offered.

Promotion of female condoms in certain relationships

The issue is not whether to target female condoms at sex workers because they are involved in cycles of high risk of HIV/STI transmission, or to target them at non-sex workers who may be in longer-term relationships. Women in general have differing types and levels of negotiation with their sexual partners, and their partners are at various stages of willingness to comply with the need for safer sex. It may be more appropriate for sex workers to use male condoms for first-line protection, with female condoms as a back-up with men who refuse or are unable to use a male condom. Further, different negotiation skills are needed for clients versus boyfriends. Women may be better able to negotiate using female condoms in less casual relationships, where there is more trust between partners. At the same time, the commercial basis of a sex worker's relationships with her clients may allow introducing condoms, while her romantic relationship with a lover prevents discussion of protection.

Authors writing about condom use in Western societies describe how partners negotiate for safer sex, and that consistent and correct condom use is related to the quality of communication between them.[28,43] Browne and Minichello describe safe sex occasions as those in which condom dialogues are supportive of condom use and involve partners reassuring each other that condom use is expected. Some exploration of alternatives and shared concern about consequences also seems to be needed. Partners who are able to eroticise condom use as well are more likely to be successful. Most of the brief, non-explicit, often non-verbal communication that precedes the purchase of sex does not constitute negotiation or communication.

The new age has given more freedom of sexual action but has not led to experimental sexual discussion which paves the way for true sexual freedom and autonomous relations.'[5]

Mechanical and technical obstacles to female condom use

Female condoms do not need to be prescribed or fitted by health workers, and are sold in the First World over the counter in pharmacies and supermarkets. This may have implications for lack of consistency and correctness of use, as it has with male condoms. Many of the technical reasons for discomfort during use of female condoms need to be sorted out by sensitive and sympathetic guidance by health workers introducing the device. For example, pain caused by the inner ring was reduced when women were shown how to remove the inner ring after insertion of the condom. Comments made about the size of the female condom being off-putting

can be countered by showing that male and female condoms are in fact the same length, though different widths. It is the extra space that makes the female condom feel less constricting, which is a feature that women have reported their partners liked.

Less than 20 per cent of participants in both our studies had problems using this method. Despite this, reports on female condoms often focus on the problems faced. Many women are willing to tolerate some discomfort if they feel that a method is better for them than the alternatives. Although no method is perfect, and different side effects have varying importance at different times in people's lives, it is sometimes easier for people to focus on side effects of a method rather than express uneasiness about other aspects of their use, such as the effect on the power balance in their sexual relationship. Women in our first study would sometimes say to us that their husbands would not allow them to do something, when probing revealed that they themselves did not want to do it, but thought it was more acceptable to use partner refusal as an excuse.

It may be that when female condoms are more available in non-research settings, with people more used to them, there will be less distrust attached to them. Female condoms need practice before men and women feel confident using them and they require better conditions for having sex than some sex workers can arrange. In the focus groups, the women mentioned that it was difficult to use female condoms when having sex in the street, in alleys or doorways, since there was nowhere to wash their hands, or to insert the condoms comfortably.

Unfortunately, the negative propaganda given female condoms, such as that they are noisy or that they feel like shopping bags, adversely influences women and men who may benefit from using them. The effects mentioned can usually be resolved by using extra lubrication and making sure the condom is inserted properly. Similar negative comments are common for male condoms, eg. it's like showering with a raincoat, eating sweets with a wrapper, and so on. Health promotion workers have had to work hard to combat this propaganda. The affectionate name of gumboots has been used with a protective connotation, ie. 'Don't go out without your gumboots' or 'A raincoat is useful to protect you against the rain'.

Consistency of use: negotiating skills as part of the package

Because of the association with HIV, condom use has been very stigmatised, but this is changing. Surveys show that more people are using condoms nowadays.[22,44] However, protection from infection is dependent on consistency of condom use; occasional unprotected episodes still leave individuals at risk.[8,45,46,47,48] These are international dilemmas. First World studies have also shown that sex workers are exposed to infection through their boyfriends rather than clients because of selective condom use, and women are more likely to use condoms in short-term rather than long-term relationships regardless of the number of partners either have had.[36,38,49]

As a result, barrier methods for contraceptive and HIV/STI protection cannot be seen as 'products' only. Successful use depends on a whole package of care. This includes the attitudes of the health workers providing the methods, and the promotion and publicity given to the methods, as well as the involvement of both men and women partners as users of the method. Acceptability studies have shown the areas where problems need to be sorted out and where negotiation skills for both partners can be improved. Programmes for sex workers which include skills training as part of their method promotion have established that their clients became more able as a result to negotiate for condom use, but also to establish relationships with men who were willing to use condoms.[41,50,51]

The knowledge and training of health workers who are providing counselling and services to the women using these methods are vital to successful use. Health workers have to learn to anticipate and respond to the problems which arise, in reassuring and imaginative ways. Several of our research nurses had used female condoms themselves and in finding solutions to their own problems with them, were more able to support the sex workers with theirs.

Support from peers

Use of female condoms became a campaigning issue with the Women and AIDS Support Network in Zimbabwe starting several years ago. Some of the members of the group had used female condoms and they too were able to advise other women on how to overcome problems and

MAGGIE MURRAY / FORMAT

Boy scouts carving wooden models

what strategies to use in negotiating with partners for their use. Without this support, women acting on their own may have given up. Women have demonstrated a need for encouragement to persist despite difficulties. They may also be more willing to discuss intimate matters with their own peers than when confronted by the professional (and often class) barriers presented by health workers. Groups like these play a similar role to those in Europe and the USA in the seventies who encouraged women to learn about their bodies, and who acted as advocates to improve the attitudes of health workers towards providing information in accessible and non-judgemental ways.[52] They also serve a crucial role in redefining the roles and status of women, providing a social network within which women can get support to change their lives.

Interestingly, there is little written about whether men compare notes or support each other on how to use male condoms. Men would probably benefit from learning from each others' experiences, but there appears to be less of a culture of 'bodytalk' amongst heterosexual men. This is another area which is changing in the West with the advent of men's magazines which focus on health issues. Peer educator programmes in Africa and elsewhere have included demonstrating condom application using wooden models. Our impression from observing these groups is that they rarely get into the kind of intimate discussion about the mechanics of condom activities that women in support groups do. However, men (like women) spend a lot of time talking about sex and comparing notes[53] so peer educators have a crucial role to play in introducing safer sex and responsibility issues into the discussions.

Conclusions

Users of barrier methods are both the men and women involved in the sexual partnership, whether they are using a male-controlled or female-controlled method. In countries where condoms are already distributed for family planning purposes, it may be easier to emphasise their dual protection benefits. However, although acceptability studies have shown high levels of satisfaction with female condoms among both men and women, there is no evidence that female

condoms will increase protection of women from HIV/STIs or unwanted pregnancy if women are not empowered to use them. Advances in contraceptive and HIV/STI prevention technology have to be matched by advances in the social and economic standing of women, their sense of self-efficacy and value, and enhancement of their status as equal decision makers in reproductive and sexual health matters.

Our research shows that despite some change in practices, many women still have problems negotiating to protect themselves from infection. Similar barriers also exist if women want protection from pregnancy but their partners do not. Use of barrier methods for either purpose requires the willingness of men to be successful users. The search for the ideal 'invisible' barrier method that women can use, without their partners necessarily knowing, has led to renewed interest in microbicides. Du Guerny and Sjoberg suggest these methods may come up against similar obstacles as female condoms do;[27] for example, if men expect their partners to get pregnant, they will still question why this is not happening. However, until there are new products (and one line of research is non-spermicidal microbicides) this cannot be determined in practice.

If the real barriers to women's health are male attitudes and behaviour, these have to be challenged. In the long run, it is no use avoiding the real issues in trying not to threaten the status quo. It is harder for men to change as individuals, in isolation. Like women, they need to be supported to make changes. New group norms need to be developed through the activities and influence of role models and opinion leaders within social networks.[54] Gender relationships and societal values that prevent women from protecting themselves from infection and unwanted pregnancy have to be questioned and solutions found. Research and policies which take the social context of female and male sexuality into account have a better chance of being successful in leading to long-term change.

Countries that have been the worst affected by AIDS are countries that were already struggling with major problems in relation to other reproductive health issues, in particular high maternal morbidity and mortality, sexually transmitted diseases and their consequences, such as infertility. Together with HIV/AIDS, these have shown up ways in which women have little power to insist on safer sex for themselves. This powerlessness includes not having access to health services and condom supplies, as well as not being able to use condoms when they have access to them. Policymakers, health care providers and other prominent figures have also been blamed for creating obstacles to the development of interventions for high risk groups.[55] The problems described are of bureaucratic delays, lack of interest and commitment, and obstruction in the name of religion.

In particular, failure to recognise that impoverishment of women plays a major part in perpetuating the HIV epidemic has led to short-sighted approaches to prevention. Failure to make provision for the needs of sex workers, in the way of health services and advice centres, has delayed possible interventions which could have supported them in trying to protect themselves, all their partners and therefore their boyfriends' and clients' partners. This too is an international problem. In Britain, for example, health services have been intensified for sex workers mainly out of fear of HIV transmission to 'innocent victims' rather than concern for the well-being of the women themselves.[6]

There have to be significant shifts in ideology and value systems to support men and women in changing the power basis in their relationships. It is necessary actively to seek and advertise models of effective change. Peer education programmes have made a significant contribution to changing community attitudes and to acceptance of the urgent need for both prevention of HIV transmission and support for those living with HIV.[55] Lobbying policymakers through public demonstrations and petitions for female condoms to be made accessible in Zimbabwe have also made a difference. A social marketing initiative was launched recently in Zimbabwe which sold 24,000 female condoms through the private sector in the first two weeks.[56] Global programmes such as the Safe Motherhood initiative, UNAIDS and family planning programmes can influence government policies, by focusing on the status of women and how this status can be enhanced. The fundamental principle that has to be accepted in order to have a significant and sustainable impact is the value given to women's lives.

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Dual Protection: Making Sex Safer for Women

Marge Berer

'Dual protection' is a way of making sex safer for women and their partners who are at risk of sexually transmitted infection, including HIV, and unwanted pregnancy. This paper discusses the extent of dual risk, why dual risks have been treated separately in the past, and why women are most at dual risk. Among existing methods of dual protection, only male and female condoms, alone or combined with another method(s) provide effective dual protection. However, problems of acceptability for users lead to inconsistent use and reduce effectiveness; methods which overcome these problems are urgently needed. A range of studies show that women and men have different levels of awareness of risk and ability to negotiate dual protection. Although negative perceptions of condoms are rife, increasing numbers of men and women are using condoms and other means of dual protection; greater attention to these successes is called for. Public health campaigns must target all women who are at risk – ie. young women and married women as well as sex workers – and challenge men's lack of awareness of the risk to themselves and all their sexual partners. Otherwise, they will fail to reduce the risk of HIV/STIs among women, serve to keep contraceptive protection in a separate box, and limit efforts to integrate dual protection concepts and behaviours into sexual culture.

THE prevention of unwanted pregnancy and HIV and other sexually transmitted infections (STIs) consists of the effective use of contraception against pregnancy and of physical and/or chemical barriers against infection. Promoting 'dual protection' is about helping people to recognise whether they need both forms of protection in their sexual relationships and how they can use existing methods to achieve this effectively in ways that are acceptable to themselves and if possible, their partners. The theory, however, has more clarity than the practice, from the point of view of those who need dual protection the most.

Who needs dual protection?

A woman and man need dual protection if they are having sexual intercourse, both of them are fertile and they do not want a pregnancy, and at least one of them has been at risk of HIV or other STIs from a source outside their relationship.

The differences between the risk of unwanted pregnancy and the risk of HIV and other STIs and the ways in which these two forms of risk do and do not overlap become much clearer when people's sexual and social behaviour are considered in conjunction with biomedical risks.

Not everyone who needs dual protection is taking effective action to achieve it. Some people need dual protection all the time but they may or may not know this. Some people specifically do not want both forms of protection for at least some of the time – for example, women who want to try for a pregnancy. Others may have a treatable STI and some have HIV – their needs for dual protection and those of their partners are as important as, but different from, those of people who need protection from infection in the first place.[1]

There has been a tendency to deal with contraception separately from the prevention and treatment of STIs in both health services and research. Thus, it is not always known whether those who wish to get pregnant or prevent pregnancy are the same or different from those at risk of HIV and treatable STIs. Furthermore, women who are pregnant or sterilised are among the least likely to be counselled about the need for or use of protection against infection,

though they may be at very high risk at these times.[2,3] Women who sell sex, and are seen as being at high risk of infection and of infecting others, are rarely thought to be in need of advice on unwanted pregnancy, or advice on protection from infection with boyfriends as well as clients.[3]

In major world regions and populations contraceptive prevalence does not yet mirror contraceptive need. At any given moment, many women are trying to get pregnant and many more are supposed to be open to becoming pregnant and are therefore not using contraception, let alone dual protection. In fact, many women may not use any protection at all before childbearing is completed, eg. in India.[4] Men are not at risk of unwanted pregnancy in the same way as women, even if they can be deemed 'responsible' for it, because pregnancy does not happen in their bodies.

Use of contraception is least prevalent in many sub-Saharan African countries, where HIV and STI prevalence are very high – young unmarried women are particularly at risk and in need of dual protection. Further, in some countries with growing HIV and STI prevalences such as Brazil and India, the majority of women using a birth control method are getting sterilised, many at quite a young age.[2,4] Indeed at a global level, the vast majority of contraceptive protection is currently provided by non-barrier methods, which were never designed or intended to protect against STIs.

After nearly a decade of public health campaigns about AIDS, there may be awareness (certainly there is great fear of) the risk of HIV and other sexually transmitted infections, but condom use data imply that far fewer people are actually protecting themselves than are at risk, particularly women.[5] As with unwanted pregnancy, the extent of risk in relation to STIs is greater for women. Sexual transmission of gonorrhoea, chlamydia, trichomonas and HIV appears to be more efficient from men to women than vice versa, partly because semen (which carries these infections) stays in the vagina for some time after sex.[6]

Sexually transmitted infections also tend to be more difficult to diagnose in women, since they are often either asymptomatic or associated with only minor symptoms, and the same holds true of HIV infection, which may be asymptomatic for months or years.[7,8] Finally, long-term complications of STIs in women are more common and more serious than in men.[9] And although effective treatments now exist for many HIV-related illnesses, these treatments do not cure in the same way as with other STIs, most of which are curable or controllable.

Contraceptive services have by and large been directed at women (and married women only in many developing countries), without taking into account their risk of STIs – while condom promotion and STI services have mainly been directed at men, without taking into account their use or non-use of contraception. The reasons for this include: the extent of difference between contraceptive needs and needs in relation to HIV and other STI prevention and treatment; gender differences and prevailing moral judgements about the locus of sexual risk; and the absence of a reproductive health approach. These limitations have seriously hampered the ability of public health programmes to promote safer sex to better effect.

The extent of risk from a public health perspective

There are compelling reasons why the concept and practice of dual protection is essential to the attainment of reproductive health and safer sex. Few people are willing to stop having sexual intercourse altogether. Although there is evidence that some people with more than one partner have reduced their number of partners in order to reduce their risk of infection, following public health campaigns, there is no evidence that significantly more couples have become or will stay mutually monogamous.

New cases of gonorrhoea, chlamydia, syphilis and trichomonas are estimated at 333 million individuals globally per year.[10] Since the start of the AIDS epidemic, close to 30 million people are thought to have had HIV infection; of these, an estimated 6.4 million have died. The proportion of women with HIV is over 40 per cent and growing. Further, the majority of newly infected adults are under 25 years of age,[3] the same age group most at risk of STIs and unwanted pregnancy. The profile of those at dual risk varies from country to country, however.

Half a million women die each year from complications related to pregnancy and childbirth. Each year more than 50 million women

around the world have an abortion. Deaths from abortions carried out in clandestine conditions are as high as 80,000-200,000 per year globally[11] so many women are carrying unwanted pregnancies to term. In a hospital in Rio de Janeiro, Brazil, over a third of 803 women delivering their babies in hospital said they had wanted to terminate their pregnancies.[12]

In the developed world, 70 per cent or more of women of fertile age (15-49) are using some form of contraception; in developing countries the percentage is about a half but with a large range between countries. In Perth, Australia, of 1490 women in union, 77 per cent were using an effective contraceptive and only three women who expressed no desire for pregnancy were not using any method.[13]

In Dar es Salaam, Tanzania, of 455 mainly low-income women admitted to a public hospital in 1992 with complications of induced abortion, only 19 per cent had been using a contraceptive method at the time they became pregnant. One third of this sample were under age 20 and among those who had been pregnant before (about half) the number of unwanted pregnancies was high. Two thirds were single yet the family planning programme in Tanzania was aimed almost exclusively at married women.[14] This is one of the few studies in which data was collected on women's sexual partners and type of relationship. Of the married women, 12 per cent had become pregnant with a boyfriend, casual partner or stranger rather than their husbands, while 63 per cent of the single women had become pregnant with their boyfriends and 37 per cent with a casual partner or stranger. Of the formerly married women, 36 per cent had become pregnant with a casual partner or stranger, 40 per cent with a boyfriend and 23 per cent with their husbands. A substantial proportion of the adolescent girls were having sex with men considerably older than themselves. This is indirect evidence of a high risk of STIs and HIV.

Two studies[15] offer quantitative data on dual risk factors among women. In Swansea, Wales, among 400 consecutive women attending an abortion clinic, just under half had no infections, 28 per cent had bacterial vaginosis, 24 per cent had thrush, 8 per cent had chlamydia, 0.75 per cent had trichomonas, and 0.25 per cent had gonorrhoea. In a rural Nigerian community in Rivers State, among 410 adolescent girls aged 12-19, only 50-80 per cent were sexually active, 5 per cent had ever used a modern contraceptive and 24 per cent had undergone an induced abortion. Among these adolescents and 458 women in the community aged 20-49, rates of thrush ranged at different ages from 20-62 per cent, chlamydia from 1-11 per cent, trichomonas 6-11 per cent, gonorrhoea 0-3 per cent and syphilis 3-6 per cent.

There are far fewer studies of contraceptive use among men than women. Existing studies about condom use tend to ask about contraceptive or STI/HIV protection but not both. A review of Demographic & Health Surveys in ten countries which surveyed men as well as women, found that in seven African and two Asian countries, condom use was much higher among married men than among married women. This suggests that condom use by men was more frequent outside marriage,[6] and not nearly as common by married women.

Thus, from a public health perspective, women need dual protection the most. When it comes to HIV/STI protection, they may be protecting themselves even less than men.

Methods of dual protection, effectiveness and acceptability

Less frequent intercourse is safer than more frequent intercourse,[1,16,17] but abstention from intercourse is the most effective form of dual protection. This is not the same thing as abstention from sex, though most people think it is (and many public health and religious campaigns for safer sex imply this) and therefore many people do not consider it an option at all.

For those having intercourse, mutual monogamy between partners who have no pre-existing infection, with use of an effective contraceptive, is the safest form of dual protection. For everyone else, the only contraceptive methods that also prevent transmission of some STIs are locally-applied physical or chemical barriers. If HIV and all STIs are included, then condoms, with or without a chemical barrier, are the only contraceptive method available that also prevent transmission of infection.

Dual protection means consistent use of a male or female condom:

- alone
- in combination with a second barrier method
- in combination with a non-barrier contraceptive or male or female sterilisation, and
- with a back-up method – ie. emergency contraception and/or abortion to prevent a continuing pregnancy and/or treatment for STIs where these exist. There is no back-up (cure) for viral STIs, such as herpes and human papilloma virus, or HIV.

For those who need dual protection, condoms used all the time are the single best protection available. In spite of all the negative press they get, both male and female condoms used consistently and correctly provide a very high level of dual protection.[18,19,20,21] Male condoms can be used for oral as well as vaginal sex (though condoms impregnated with a spermicide are not intended for oral or anal use). Heterosexual couples can make use of special male condoms intended for use in anal sex, promoted primarily to homosexual men, that are stronger than those intended for vaginal sex. There is anecdotal evidence that the female condom can be used vaginally without the inner ring and inserted on the penis,[22] and has been used this way for anal sex as well.

Reliance on condoms for protection, whether alone or with any other method, raises immediate objections. The trend in family planning policy, contraceptive development and contraceptive user preference has been away from barrier methods since the 1950s. Because of inconsistent and incorrect use, the low contraceptive effectiveness of barrier methods as compared to non-barrier methods is a major disadvantage.

This disadvantage is compounded by the greater potential need for abortion as a back-up. However, as far back as 1977 Christopher Tietze found that barrier methods with the back-up of early abortion were together the safest and most effective form of protection for women. Although this finding took only unwanted pregnancy into account,[23] the advent of HIV reinforces the validity of this analysis. Given improvements in early abortion methods, particularly early medical and surgical abortion, this option would be acceptable to users and could be promoted where abortion is legal.[24] Yet medical abortion is still hardly available, and in countries where abortion remains legally restricted and clandestine, this remains beyond consideration.

Emergency contraception is also a possible back-up method for condoms; this method reduces the risk of pregnancy[25] but does not eliminate it. The acceptability of emergency contraception is likely to be increased when mifepristone as an emergency contraceptive comes on the market, because of reduced side effects and greater efficacy compared to hormonal methods of this type.[24]

The use of male or female condoms against infection with a non-barrier method of contraception that does not require much user involvement and does not interfere with sex (whether the Pill, implant, injectable, IUD or sterilisation) may be more preferable than two barriers. It has advantages from the point of view of user convenience and acceptability, overcomes user and provider concerns about contraceptive effectiveness and can greatly reduce the need to rely on abortion as a back-up.

Reliance on two barrier methods of protection is also feasible. Male condoms plus the diaphragm with spermicide were once a widely used and highly effective form of dual protection in western countries before the Pill, when used consistently. With promotion, this could be acceptable to some couples now, yet no recent studies or promotion of this combination seem to exist.

Withdrawal as a possible method of dual protection is never promoted because of high contraceptive failure rates, yet it is still widely used for contraception and deserves more attention.[6] Anecdotal reports from Europe, North America and Australia indicate that withdrawal is also being used by some heterosexual and male homosexual couples to avoid or reduce exposure to infection in semen for the receptive partner. The few small studies that have compared HIV infection risk in women with and without ejaculation in the vagina show conflicting results, and more research is needed before conclusions can be drawn.[26]

The combination of condoms with spermicide for vaginal use is also possible and theoretically should be more effective than condoms alone;[27] based on this assumption, many condoms are now impregnated with a spermicide. However, no comparative studies have shown whether this combination increases dual protection significantly in practice over condoms on their own.

One recently completed study compared

condoms used with a nonoxynol-9 (N-9) spermicidal film to condoms alone, though not for dual protection. This was a large, controlled, two-year study among women sex workers in Cameroon.[28] It provides sobering evidence that even with intensive counselling, regular STI screening and treatment, and high rates of condom use alone or combined with spermicidal film, a substantial number of women got HIV (almost 7 per cent), gonorrhoea (over 30 per cent), chlamydia (over 20 per cent) and genital lesions (over 30-40 per cent). The reduction in HIV incidence (to under half the baseline rate estimated in this population) and the high rate of condom use achieved by the women in this study were both important successes. The extent of new infection, however, indicates just how problematic the use of a theoretically effective barrier method can be in a high risk population.

Placing greater hope in 'female methods'

Much hope has been expressed that, due to the unwillingness of both men and women to use male methods consistently, particularly men's unwillingness, methods used by women might confer more protection in practice – because they might be used more consistently.[29,30,31] Current options include female condoms with or without spermicides, the diaphragm or cervical cap with spermicides, and spermicides alone.

The female condom has been shown to be more resistant to breakage than the male condom. In addition, because the external female genitalia are partially covered by the female condom, it may provide better protection against infection caused by genital ulcer pathogens and human papilloma virus than the male condom. However, the latter has not been determined in practice.[20] The question of whether women or men find female condoms preferable to male condoms has just begun to be asked,[32] and hopes regarding more consistent use will depend on whether women can and will be able to ensure this if men are unwilling to use them.

The diaphragm and the cervical cap used with a spermicide each provide protection against upper tract infection such as gonorrhoea and chlamydia, as well as contraceptive protection.[33,34] They are assumed not to offer protection against HIV because they do not protect the vaginal wall. Spermicide alone provides some protection against gonorrhoea, pelvic inflammatory disease (PID) and chlamydia.

The efficacy of existing spermicides against HIV has not been studied in a controlled trial due to concerns that they may not work. Further, spermicides can cause vaginal irritation, particularly with frequent use; there is conflicting evidence as to whether this may even increase the risk of HIV.[35] Before female condoms became available, the question of whether it was ethical to recommend the use of spermicides alone to women who were unable to negotiate male condom use and who were unprotected from infection, was hotly debated. With good arguments on both sides consensus could not be reached.

Ironically, in spite of greater hopes for women-controlled methods, female condoms are even less promoted or available than male condoms, and other 'female' methods are less effective for dual protection than either kind of condom. Two conclusions can be drawn:

- Although effectiveness as regards fertility control can be kept very high if one or more additional birth control methods is used with male or female condoms, protection against STIs – and particularly against HIV – depends on consistent and correct use of condoms.
- As long as more than one method is needed to achieve highly effective dual protection, there will be extra difficulties for individual users and their partners, as well as service providers and policymakers.

Failure rates with perfect use, consistent and correct use, inconsistent use and non-use of many of the methods of dual protection have been calculated.[36] As regards condoms, at least, one fact remains:

'What [is] the real problem with condoms? The most obvious one is that they don't work when you don't put them on. This is by far the most common reason for their failure as a contraceptive method and as an STD preventive.'[17]

New methods under development

Obviously, something better is required, and if possible, a range of new methods. Given the complications created by having to use two methods to achieve dual protection, something

that is effective against both sperm and HIV/STIs would be highly preferable.

The bulk of current research on preventive methods for dual protection is focused on vaginal microbicides, aimed at making them more acceptable and effective against pregnancy, HIV and STIs than currently available methods. From the users' point of view, a microbicide must provide more complete coverage of the genital tract, help to maintain the normal acidity and flora of the vagina, be less irritating, longer lasting, biodegradable, aesthetically pleasing, easily removed and at the same time, inactivate HIV and other STIs,[37] and possibly inactivate sperm as well. If possible, it should also have a pleasant (or at least tolerable) taste and smell.

Research into new microbicides is taking two directions. First, there are attempts to assess the microbicidal activity and efficacy of currently available spermicides against both STIs and HIV, and to modify these to produce more acceptable and efficacious formulations. Second, a search for new products is taking place. As well as work on new contraceptives, a range of microbicides, new male and female barrier methods and vaccines against HIV and specific STIs are being pursued.[28] Acceptability issues and ethical aspects of this research are also being addressed.[38,39]

Some major gaps that science has as yet been unable to address include: 1) how to reduce the risk of infection through anal and oral intercourse for both women and men except with condoms; and 2) how to reduce the risk of infection through vaginal intercourse without killing or damaging sperm, so that women can get pregnant safely even in the presence of infection. At a minimum, it will be important to ensure that any new product will do no harm if used orally or anally, nor damage sperm without at the same time preventing fertilisation. These are aspects of risk and protection which show up the limits of the dual protection approach, as well as its complexities.

Perceptions of risk and the need for dual protection

Decisions on the relative importance of protection against STIs and pregnancy are made in the context of an individual's situation vis à vis their sexual partners, their social situation, knowledge of and access to appropriate methods, and the acceptability of those methods to them.

One of the main reasons why so few people in long-term relationships are protecting themselves and their partners from HIV/STI is not simply the lack of public health promotion, or the shorter time that dual protection methods have been promoted as compared to non-barrier contraceptives. It is because of the fact that although sex with more than one partner is commonly practised, it is socially illegitimate and mostly remains unacknowledged to spouses and other regular partners. If one partner (more often the woman) does not know, or has to act as if she does not know, that her partner has other partners, she cannot negotiate for protection.

A study in Brazil, which illustrates this dilemma, compared sterilised and non-sterilised women's perceptions of risk and condom use. It found that the sterilised women were less likely to use condoms to protect themselves against STIs than the non-sterilised women.[2] Across both groups, 65 per cent of women felt that suspected infidelity in their partner would be impossible to bring into the open as they would feel forced to leave the relationship. Thus, it was nearly impossible for the women who had been sterilised to negotiate the use of condoms, while those who needed contraception could at least say they wanted to use condoms for that purpose instead.

A significant minority of cases of HIV in women have been attributed to relationships with men who may identify as heterosexual but who have sex with other men who are also at risk. In these cases, most of the women had no knowledge that they were at risk in this way.[40,41,42]

To date, few studies have looked at the extent to which people think about risk in their own sexual situation or whether they need dual protection. In many cases, it remains unclear what factors would have to change for people to be able protect themselves. Risk perception leading to preventive action involves complex variables. Many people have a poor perception of STI risk.[43,44] Alternatively, risk may be perceived but denied or dismissed ('It won't happen to me', 'I don't have to worry about her' or 'To hell with it'); or risk may be perceived but lead to inappropriate or ineffective action. Effective action may only come a long way down

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the line, and sometimes too late.

There are many studies suggesting that women are not using protection because they are 'powerless' and 'vulnerable'. Yet women are often not asked why they feel unable to protect themselves. One study in Atlanta USA examined condom use for STI protection by Norplant users since they had started using Norplant. The women were classified into low, medium and high risk categories on the basis of questions about their sexual behaviour.[45] These questions were based on the investigators' perceptions of the women's risk factors, rather than the perceptions of the women themselves. It was found that condom use increased with STI risk, but use of condoms all the time was low at all three risk levels. The reasons why more women were not protecting themselves did not emerge.

Risk perceptions are not only about oneself but also about others. One study of HIV positive women in the USA attempted to identify the extent of women's awareness that they might infect their partners, using HIV status of the partner as a measure.[46] Of women whose most recent partner was HIV negative 55 per cent were using condoms, compared with 48 per cent of women whose most recent partner was HIV positive and 39 per cent whose partner's HIV status was unknown. Again, not only was knowledge of risk not enough to ensure use of protection. The perceptions of the women and their partners as to why they did or did not use protection, which for all three groups would have been equally valuable for different reasons, was not explored.

One study in Zimbabwe did ask these questions, and found that in the wake of high levels of HIV and other STIs, few people felt able to tell anyone else of their HIV status or that they had been at risk. When offered confidential counselling and support, women were less likely than their husbands to deny or avoid the subject of risk and more willing to take measures to prevent infection. However, decisions on condom use and family planning in most cases lay with their husbands. Condoms were not popular among the men and certainly not within marriage, though following intensive public health campaigns condoms were much more likely to be used in extramarital relationships.[47]

Choice of method(s) is not necessarily made in the recognition that the method(s) protect against both pregnancy and STIs, even when both these forms of protection are required. Furthermore, protective intent and protective effect may be different, depending on consistency of use. Women needing condoms for contraception do not need condoms all the time, but only when they are fertile. Women need HIV/STI protection all the time.

A study in two inner-city communities in Baltimore, USA found that 65 per cent of women using condoms chose condoms for dual protection, 13 per cent for pregnancy prevention only and 22 per cent to prevent STI only.[48] Yet whether their reasons for using condoms affected consistency and correctness of use did not seem to have been studied.

Cates notes that pregnancy is often seen as a greater threat than the acquisition of STIs, even in situations where the risk of STI transmission is likely to be high. In line with this, women also tend to use condoms less for protection against STIs if they are using a highly effective method of contraception.[32] For example, a study in Baltimore of adolescent girls showed that consistent Pill use was negatively correlated with consistent condom use. Each of the girls in the study had been given a prescription for oral contraceptives and counselled in the use of condoms for dual protection. Over a six-month period, 16 per cent of the study population consistently used condoms yet 30 per cent were considered to be at high risk of STIs.[49]

Such findings are mainly from developed countries where HIV risk is low, except in specific sub-groups. In places where HIV prevalence is high, what is considered the greater threat may well be altered. At the same time, where legal abortion is restricted and women do not have the money to pay for a safe abortion, unprotected sex becomes life-threatening in yet another way. Such factors affect thinking and behaviour, as well as choice of method. To these must be added the perceptions and behaviour of partners, families and communities, the public health messages people have heard (if any), who provided their method(s) and the content of the counselling and information they were given at the time.

Public health messages can inform and educate but poorly designed messages can also fail to challenge widespread perceptions or behaviour. One example is a policy that advises the use of oral contraceptives to prevent pregnancy and the use of condoms for any act of intercourse with a risk of HIV/STIs (sometimes called the 'double Dutch' method). For those who do not know they are at risk of HIV/STIs, this advice is of little value.

When the application of this advice was studied among university students in the Netherlands, 63 per cent said they thought that prevention of pregnancy and of STIs was equally important. In practice, however, 84 per cent of students had used a contraceptive in the previous year, whereas only 22 per cent had used protection against STIs at every act of intercourse. Most (men and women equally) said they had not used protection against STIs because they had had sex only within a steady relationship, and did not consider themselves to be at risk.[50]

Less information is available about the perceptions of heterosexual men with more than one partner than any other group at high risk. Two recent studies in Thailand found that a large number of men had visited a sex worker at some time. These men's use of condoms depended on the sexual situation. Inconsistent condom use in the one study was highly associated with being drunk and with the belief that a partner was 'safe'. Among the married men, only 14 per cent had ever used a condom with their wives.[51] In the other study, visits to sex workers decreased after marriage. Visits to brothels were the most common form of buying sex, and condoms were most often used in brothel settings. But in settings other than brothels, condoms were much less likely to be used. Even for very casual sexual encounters, if a woman was not identified as a sex worker, she was assumed to be 'safe' and condoms were not used.[52]

This lack of awareness is summed up by one man from Zimbabwe:

'You are a good woman, you are safe, so I don't need a condom.'[47]

The Thai condom promotion programme, begun in 1989, is likely to have influenced men to identify some situations (and some women) as 'safe' and others as 'unsafe'. Thai data showed that almost all men who sought STI treatment from government clinics said they had had sex

with a sex worker. Hence, along with improving STD treatment services, the government launched a condom campaign that focused on encouraging and then requiring the use of condoms in registered sex establishments. And indeed, it has worked insofar as there has been an 85 per cent decline in the rate of reported STDs, and condom use in registered sex establishments has increased from 14 per cent to over 90 per cent. Recently, a decline in the rate of new HIV infection has been detected among military conscripts, raising hopes that prevention efforts are succeeding.[53]

This is welcome news. Yet if these studies are any measure, the Thai policy and others like it may be failing to inform men that they themselves present a risk to every partner with whom they do not use a condom, including their wives. Both studies suggest that the men's risk perceptions were poor and neither one indicates whether the trend is equally good for 'safe' and 'unsafe' Thai women. From Zimbabwe[47] to Puerto Rico,[54] it has been shown that a great many married women who have had sex only with their husbands have become HIV positive. In Thailand too it was predicted that women married to men who visited sex workers would be put at risk of HIV through their husbands.[55]

Among women delivering their babies in a large university hospital in Bangkok, HIV seroprevalence rose from 0.34 to 0.96 per cent from 1991 to 1992. Of women receiving antenatal care in the same period, seroprevalence rose from 1.1 to 1.7 per cent. Of women testing positive, a full 69 per cent had no identified risk factor except through their husbands, and 24 per cent from having more than one partner. Only 7 per cent had been at risk through sex work.[56] Prevalence in women attending antenatal clinics in Thailand had reached 2.3 per cent in 1995.[3] Has this trend among women been reversed by the Thai condom policy, as appears to have happened with men? Data are not currently available.

The Thai condom policy ignores the role of contraception partly because it focuses entirely on sex work. The 'double Dutch method' addresses contraception as well as infection but relies on accurate perceptions of infection risk. Policies which urge men to use condoms only with certain women or in certain sexual situations can have a public health effect and when they do, as with the Cameroon study,[36] they will be hailed as a success. However, such policies will expose a significant number of women, especially women whom men trust to be safe or faithful to them, to a very high level of infection risk. Many have claimed that the Thai policy is the only feasible policy. Yet in Japan, where hormonal contraceptive methods have been kept off the market, condoms are the most widely used form of protection, including in marriage, with abortion as a back-up.[57] Although Japanese men travel to countries like Thailand in great numbers to visit sex workers, they must also be taking condoms and using them to good effect, as the HIV rate in Japan is among the lowest in the world.

Given that people do not always know they are at risk, the question of how to support them in learning that they are at risk and doing something about it is very problematic. If the above evidence is enough to generalise from, women can more easily justify condom use if they can say it is for contraception, while men are more often using condoms with sex workers and in other extra-marital situations for protection from infection. How to make the need for and practice of dual protection socially and culturally acceptable in marital and other long-term relationships remains a question still to be answered.

However, the examples above raise serious questions about the gender inequity and injustice of policies which fail to challenge men's current sexual behaviour and reinforce men's perceptions of women based on the good woman/bad woman dichotomy. Conversely, they highlight the value of treating condom use as a form of dual protection and promoting condoms for all sexual situations no matter which form of protection is needed, until they become acceptable that way.

Implications for policies and services

Making dual protection methods accessible and available to those who need them has major implications for services as well as users. Although HIV/STI prevalence and incidence has been used to determine when the promotion of condoms needs to become part of public health policy and for whom, this has usually come too late to prevent epidemic levels of infection. As with policy on contraceptive use, it is crucial that policies for prevention of HIV/STIs target everyone at risk.

Even the limited data on acceptability, use and effectiveness of dual protection methods imply that an intensive and costly, large-scale public health investment would be needed to achieve a significant reduction in infection rates along with contraceptive protection. Few governments have shown themselves willing to make that commitment to date.

Several decades of research in the field of family planning suggest that the more contraceptive choices women have available, the more likely they are to find one of them acceptable and use it. This would suggest a similar benefit of more options for safe and effective HIV/STI protection.[32] A recently published review of studies of female condom use against infection supports this suggestion[20] and provides evidence that expanding options for dual protection can result in fewer acts of unprotected intercourse and a reduction in undesirable outcomes.

Two major challenges for service provision are training of service providers to provide dual protection methods well, and ensuring that counselling provides the negotiation and technical skills people need within their sexual relationships. Clearly, teaching people how to use condoms (of every variety) and other methods of protection (eg. spermicides) is essential – not just how to put them on/in, but how to incorporate them into sexual activity, how to cope with problems such as loss of erection, and how to eroticise the use of these methods with partners.[17]

Another key issue is cost. Offering people more than one method suggests an increase in costs beyond what many countries, especially but not only in the developing world, will say they can afford in spite of the clear public health benefit. Yet if the cost benefit of effective dual protection is taken into account, cost increases may not be as high as might be thought.

How best to combine contraceptive, abortion, HIV and STI services is a major question. The inclusion of HIV testing and counselling, with referral for medical care and social support services, complicates this. Some countries lack one or more of these services separately, and may find it as easy to combine them from the start.

More optimistically, many of the assumptions on which the concept of dual protection is based have already been accepted by some family planning and STI service providers.[58] Dual protection may prove to be an area where links between services can be initiated or strengthened. In fact, a dual protection approach is one example of an integrated approach to reproductive health.

Women-centred approaches

Women need and take responsibility for protecting themselves against unwanted pregnancy, and given that women also need HIV/STI protection, it is in their interests to find ways to take responsibility for that as well. Over the years, negative outcomes related to sex have changed and what constitutes effective protection must change with them. For a time, people moved away from barrier methods of protection and now these are needed and demanded again, within different parameters. Perhaps the major hurdle to overcome is continuing resistance to barrier methods – starting with resistance among service providers and policymakers, and not only potential users.

'There is an eternal fascination with the failings of condoms...'[17]

The literature is rife with negative perceptions, prejudices, derogatory remarks and complaints about condoms and other barrier methods. Data showing that use of condoms and awareness of the need for dual protection have increased tremendously in the past decade are almost nonexistent in comparison.

When study after study describes an almost rigid unwillingness to consider condom use on the part of women and men alike, the question arises whether it is the attributes of condoms alone that are at fault. It is probable that few researchers and service providers have substantial experience of condom use. And there are few in-depth studies of whether and in what ways those with long-time use and experience of condoms are satisfied users. On the other hand, how much condom acceptability data have been reported from people who have never used them or only used them for a short time? If research on contraceptive acceptability is anything to go by, then the perceptions of people with little or no experience should not be the only measure of condom acceptability.

Numerous research studies rue the extent

of unwanted pregnancy, STIs and HIV. The following, however, are indeed rare:

- papers about successful condom users who speak in praise of condoms and other forms of dual protection,
- research exploring the perspectives of women and men in a range of relationships who are successfully practising dual protection, and why and how they are able to do so,
- services where the majority of providers are skilled in condom use themselves and are teaching people how to incorporate condoms and other dual protection methods into their sexual relationships,
- national policies and programmes whose aim is to promote dual protection with a women-centred perspective, based on the fact that all women potentially need dual protection – not just 'other' women – and at some times but not at other times.

Given that treatment and cure options for STIs and HIV are likely to remain limited for a long time to come, there is a responsibility on the field to promote dual protection methods much more, with all the difficulties that entails. For research and education purposes, the best way to start is to find out who is at risk and spend time talking with them, including those who are successfully practising safer sex and those who feel unable to do so, and working from their perspectives and experiences to develop appropriate sex and health education messages and new counselling and service delivery models.

Campaigns in countries in all world regions have proved that men and women at risk are willing to use condoms and other means of dual protection when counselling, skills training and support for negotiation with partners is available; those who need to launch such campaigns could take greater heed of successes and try to adapt and duplicate them. Such campaigns need to focus on all women at risk, whether young women who are most vulnerable to sexual exploitation, married women who are often ignored because they are assumed to be safe from their spouses' point of view, sex workers whose lives are devalued in spite of the services they provide, or any woman who has more than one partner.[59]

Public health campaigns and messages need to target everyone who is at risk from sexual activity, instead of mainly the sale of sex; otherwise, they will fail to be women-centred, fail to reduce the risk of HIV and other STIs among all women, serve to keep contraceptive protection in a separate box, and limit efforts to integrate dual protection concepts and behaviours into sexual culture.

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Beyond Acceptability:
Users' Perspectives on Contraception

How do women and men decide which contraceptive they are going to use and how do they feel about the methods they have tried? Why do they choose the methods they do and what makes them stay with a method or abandon it for another? What does 'acceptable' mean when applied to contraception?

This collection of papers was inspired by a recent international workshop on this theme, whose aim was to move beyond the concept of acceptability towards a greater understanding of the perspectives of the people who use contraception themselves. It brings together the experience of researchers, contraceptive service providers and women's health advocates. The papers include original research carried out in Chile, India, South Africa and the UK and in two cross-country studies; reviews and analysis of the existing literature and proposals for future directions, including the following topics:

- market research and analysis of contraception
- hormonal contraception: what we know and what we need to find out
- would the diaphragm be more widely used if it were more available
- negotiating condom use: an issue of empowerment
- acceptability of the new post-partum vaginal ring
- urban poor women's views on the technical attributes of contraceptive methods: a comparative study
- couples' perspectives on the vasectomy decision
- dual risk and dual protection: making sex safer
- supporting women's choices and effective use of contraception
- reorienting research on contraceptive choice

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