Partner-Delivered Therapy Viable in Resource-Poor Areas

In South Africa and Brazil, the Population Council has recently studied alternative methods of notifying partners of women with sexually transmitted infections (STIs) that they need treatment. These studies have verified that offering women with STIs the option of bringing medicines to their partners, rather than requiring partners to come to the clinic, results in high treatment rates.

**Notifying partners of infection**

Notifying people that their sexual partners have an STI is an important means of reducing the transmission of infection. The practice of partner-delivered medicine has been shown to increase the number of partners contacted and to decrease the rate of re-infection in resource-rich settings, but little work has been done to demonstrate its effectiveness in resource-poor settings. It is in these places, however, where the strategy might be most useful; partner notification methods that rely upon outreach by health professionals are difficult to maintain in resource-poor settings, which often have shortages of providers.

Population Council researchers Heidi E. Jones, Juan Diaz, and Sheri A. Lippman collaborated with colleagues from Santa Casa Medical School and the University of Cape Town to study partner-delivered treatment programs in São Paulo, Brazil and Gugulethu, Cape Town, South Africa. These investigations were part of two larger studies of home-based STI testing. The studies tested for the presence of trichomoniasis, chlamydia, and gonorrhea among participating women. These infections may increase the risk of HIV infection and contribute to infertility, pelvic inflammatory disease, obstetric complications, and illness in newborns. Further, they can all be treated with a single dose of medication.

**São Paulo**

In Brazil, women who had trichomoniasis were offered three options for partner notification: notifying their partners themselves, having a health professional notify their partners, or bringing medication and instructions on use to their partners. Women with chlamydia or gonorrhea were offered only the first two options because study clinicians felt that direct counseling of the partners was a priority. Of the 787 women in the larger study, 108 had at least one of the three infections.

Twenty-eight women had trichomoniasis. Four of them reported no sexual partners in the last three months, so partner notification was not conducted. Eighty-one percent of the partners of the remaining women were treated, 91 percent receiving partner-delivered medicine.

Eighty-five women had gonorrhea and/or chlamydia, four of whom reported having no sex partners in the last three months. Forty-four percent of the partners of the remaining women came to the clinic for treatment, and 51 percent received partner-delivered medication. Although the latter option was offered initially only to women with trichomoniasis, providers later began offering this option to women with other infections whose partners did not come to the clinic. The majority of partners who were not treated were those of patients who refused to contact the partner, usually because they were no longer a couple.

**Gugulethu**

In South Africa, all women who were found to have any of these three infections were given a choice between bringing clinic referral slips to their partners or bringing medicine and instructions on use to their partners. Of the 626 women in the larger study, 106 were found to have at least one STI. The women chose to take medication to 85 percent of their partners and a referral slip to 13 percent of their partners. The most common reason women elected to get the medication was their concern that their partners might initially agree to visit a clinic, but would not follow through. The second most common reason given was that a woman’s partner was too busy to attend a clinic or would refuse to attend for other reasons.

“Today the rates of STIs we found in these studies confirm the urgent need for improved methods of preventing disease transmission,” says Jones. “Patient-delivered medicine is the preferred method of partner notification in both studies, and it resulted in high rates of partner treatment.”

A barrier to partner notification in general is the lack of highly accurate and inexpensive STI diagnostic tests in resource-poor settings, say the researchers. Additionally, says Diaz, “we need to reach out to providers and educate them about the benefits of this strategy. In the Brazil study, and in studies in other countries, physicians have expressed reservations about using partner-delivered medication. Their understanding and approval are crucial to the method’s success.”

**SOURCES**


**OUTSIDE FUNDING**

United States Agency for International Development
Postabortion Complications Prevalent in Pakistan

Determining the levels of induced abortion and postabortion complications in various regions is essential because of the consequences these experiences have for women’s health. The Population Council has studied abortion and postabortion complications around the world, most recently in Pakistan. This comprehensive research has revealed a high level of unwanted pregnancy, induced abortion, and postabortion complications in that country. Abortion is legal in Pakistan to provide “necessary treatment.” This term is vague, however, and safe abortion services are not easily accessible.

Recent national demographic surveys indicate a high level of unmet need for family planning in Pakistan. This situation arises when women wish to avoid pregnancy but do not use a contraceptive method. Unmet need for family planning results in unwanted pregnancy. To investigate further, Population Council researchers conducted four studies in 2002 and 2003: a survey of health professionals, a survey of health facilities, a survey of women who suffered postabortion complications, and in-depth interviews with women (and their husbands) who had experienced an induced abortion. Data were collected in urban and rural communities in four provinces.

Incidence of induced abortion

Although the total fertility rate in Pakistan is 4.8, the wanted total fertility rate is 3.9, according to the 2000–2001 Pakistan Reproductive Health and Family Planning Survey. Hence, women in Pakistan average one unwanted birth in their lifetimes. The Council’s research suggests that 890,000 induced abortions were performed during 2002 and that the annual abortion rate is about 29 per 1,000 women aged 15–49. These figures indicate that the average Pakistani woman would experience one abortion in her lifetime. Nationally, about one in seven pregnancies is terminated by abortion. “What is strikingly clear from these estimates is that induced abortion is a widely used method of preventing unwanted births in Pakistan,” says Zeba Sathar, Population Council country director in Pakistan. Moreover, based on interviews with knowledgeable health professionals, the Council study estimates that 23 percent of all Pakistani women who obtain an abortion are hospitalized for treatment of complications they experience.

Council research reveals that abortions are performed by doctors, nurses, midwives, 
dai (traditional health practitioners), and others. Among the abortion procedures most often named, though not necessarily performed, by health care professionals were dilation and curettage (D&C), intrauterine sticks (knitting needles, bamboo sticks), oral hormonal pills, and vaginal drugs. Women also sometimes attempt to produce their own abortions using a variety of techniques including drugs, herbs (taken orally or vaginally), insertion of objects, strenuous exercise, or vigorous abdominal massage.

Postabortion complications

The fraction of induced abortions leading to serious complications, according to the perceptions of Pakistani health professionals and women who had undergone an abortion, ranges from about 10 percent of abortions performed by obstetrician/gynecologists to 66 percent of those performed by 
dai or traditional birth attendants. The health facilities survey reveals that each year roughly 250,000 women are treated for postabortion complications—which can stem from either induced or spontaneous abortions, also known as miscarriages—in mid-size and large public-sector facilities and in private teaching hospitals alone.

The Council survey of health professionals reveals that most women in Pakistan who have induced abortions are nearing the end of their childbearing years. The women are aged 30 or older and have typically had three or more children. A majority of them know about contraception, and have used a method in the past. The most common reasons women give for not wanting another pregnancy are that they have already achieved their desired family size, they cannot afford more children, they currently have very young children, and their health is poor. The Council’s research revealed that a variety of constraints, from financial costs to a fear of health side effects, prevent Pakistani couples from practicing effective contraception.

Policy suggestions

Council researchers met with Pakistani government officials, physicians, and professionals at nongovernmental organizations to share their findings and propose policy changes. Among their suggestions, family planning services need to tackle the various obstacles that prevent Pakistani couples from practicing effective contraception. Services need to be more accessible and less costly. Women’s and men’s fears about health side effects of contraception need to be squarely confronted. Medical care for postabortion complications should be more widely available and of higher quality. Men should be more effectively involved in resolving the various problems surrounding unwanted pregnancy—ineffective contraception, induced abortion, and its repercussions.

“No other piece of research that I have been involved with has had such a strong positive response, from government, civil society organizations, and the medical community,” says Sathar. “Policymakers and program managers seem ready to take action to avoid the morbidities and possible death associated with the large number of unwanted pregnancies and abortions.”

SOURCE


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TECHNICAL SUPPORT

Alan Guttmacher Institute and World Health Organization
Emergency Contraception’s Mode of Action Clarified

Emergency contraceptive pills, a hormonal treatment that can prevent pregnancy if taken within 72 hours of unprotected intercourse, have been the subject of heated debate. At issue is the method’s mechanism of action: does it prevent the meeting of egg and sperm, or does it prevent a fertilized egg from implanting in the uterus? Recent research by members of the Population Council’s International Committee for Contraception Research (ICCR) and other scientists shows that the most popular method of emergency contraception appears to work by interfering with ovulation, thus preventing fertilization, and not by disrupting events that occur after fertilization.

The most common and effective form of emergency contraception contains levonorgestrel, a progestin. It is sold in the United States and Canada under the name Plan B®. Reproductive physiologist Horacio B. Croxatto of the Chilean Institute for Reproductive Medicine in Santiago, Chile, and his colleagues studied the effects of levonorgestrel on the reproductive cycle of female rats, monkeys, and humans. Croxatto and one of his study partners, biomedical researcher Vivian Brache of PROFAMILIA in Santo Domingo, Dominican Republic, are members of the ICCR.

Emergency contraception in animal studies

Croxatto and his colleagues exposed female rats to very high doses of levonorgestrel at various stages in their reproductive cycle, either before or after ovulation or before or after mating. “When a woman uses emergency contraception,” Croxatto explained, “she does not know whether she is taking the pills before or after ovulation or before or after fertilization.” The researchers found that levonorgestrel inhibited ovulation totally or partially, depending on the timing of treatment and the dose administered. However, the drug had no effect on fertilization or implantation when it was administered shortly before or after mating or before implantation.

Next, Croxatto and his colleagues studied the effects of levonorgestrel given to *Cebus* monkeys either before ovulation or postcoitally. The reproductive cycle of each animal was monitored by ultrasound examination of the ovaries, vaginal smears, and measurements of blood hormone levels, in order to time the administration of levonorgestrel.

The researchers found that, when given before ovulation, levonorgestrel was able to inhibit or postpone ovulation. Alternatively, when it was given after mating—at a time when fertilization was believed to have occurred (on the basis of previous monitoring)—the pregnancy rates observed were identical in cycles treated with levonorgestrel or with a placebo. This indicates that levonorgestrel did not interfere with any postfertilization process required for embryo implantation.

Emergency contraception in women

Women may become pregnant when they have intercourse in the five days before ovulation. This is because sperm can live in the female reproductive system for up to five days. An egg, however, is usually viable for only six to 12 hours after it is released. Croxatto, Brache, and their colleagues studied the effects of levonorgestrel administered during this fertile preovulatory period of women’s menstrual cycle.

Twenty-nine women in Santiago and 29 women in Santo Domingo were enrolled in the study. All of the women were protected from pregnancy by tubal ligation or a nonhormonal intrauterine device. The study was randomized, double-blind, and placebo-controlled: the gold standard for clinical trials. Women were treated with either placebo, a full dose of Plan B emergency contraception, or a half dose of the drug. They were followed over several cycles, and, by the end of the study, each woman had received all three of these treatments, separated by resting cycles. The women were randomly assigned to receive the treatments at specific times during the fertile preovulatory period, according to the diameter of the leading ovarian follicle, as determined by ultrasound. The leading ovarian follicle is the structure that ruptures to release the mature egg.

In 82 percent of Plan B–treated cycles, follicles failed to rupture within the five-day period following treatment (the maximum time span sperm would survive in the female reproductive tract), or there was some significant ovulatory dysfunction. These conditions occurred in only 41 percent of placebo cycles. The rate of ovulatory dysfunction observed with Plan B treatment is identical with the estimated efficacy rate of Plan B emergency contraception. Blood tests indicated that Plan B affects ovulation by suppressing the surge of luteinizing hormone (LH) that normally acts as a trigger for the ovulatory process.

“There is no doubt that fertilization would not have taken place in those women should they have had intercourse prior to treatment,” says Croxatto. “We conclude that the effects exerted by Plan B, when it is taken before the onset of the LH surge, may fully explain the pregnancies averted by emergency contraception. Failure to affect the LH surge, because treatment was begun too late in the fertile preovulatory period, explains the 20 percent failure rate of this method.”

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**SOURCES**


Physical Abuse Common During Pregnancy in South Asia

Population Council researchers recently completed studies in Pakistan and Nepal of attitudes and behaviors surrounding violence against women during pregnancy. These investigations were some of the first of their kind in South Asia. They probed the level of awareness of domestic violence among obstetrician/gynecologists (OB/GYNs) in Karachi, Pakistan, and of OB/GYNs, assistant nurse midwives, and traditional birth attendants in Kathmandu, Nepal. Postpartum women in Karachi and Kathmandu were surveyed to augment knowledge about the scope, context, and consequences of violence faced by pregnant women. Although preliminary and limited to two urban areas, the studies suggest a high level of physical abuse during pregnancy and provide some empirical basis for developing realistic interventions to protect the lives of women and their children.

Obstetrician Fariyal F. Fikree spearheaded the studies in Pakistan and Nepal. Fikree, now at the Population Reference Bureau, was Population Council director of regional health programs in Cairo, Egypt.

Obstetricians’ awareness

Obstetricians in both locations and other birth attendants in Kathmandu were nearly universally aware of severe pregnancy complications caused by physical abuse. The majority of obstetricians interviewed believed that more than 30 percent of women in Pakistan and Nepal are the victims of domestic violence. But the majority of OB/GYNs thought that the prevalence of domestic abuse in their own practices was less than 10 percent. Types of physical abuse mentioned by doctors included beating, slapping, kicking, and pulling hair. Injuries mentioned included bruises, cuts, burns, and vaginal trauma.

In both locations, about three-quarters of obstetricians agreed that a health care provider’s role includes helping domestic violence victims. In Kathmandu, 77 percent of obstetricians approved of routinely screening patients for signs of abuse, and 29 percent said they regularly screened their antenatal patients. In Karachi, 47 percent of obstetricians were favorably inclined to routinely screen patients, though only 3 percent reported routine screening for domestic violence at antenatal visits. The main reasons given for not routinely screening patients in both locations included a lack of training in domestic violence issues, a lack of time, and not having a solution to the problem. The majority of providers expressed interest in dealing with domestic violence and suggested that it would be important to receive training to be able to counsel women as part of antenatal care.

Women’s experiences

Nearly one-quarter of the women interviewed in Karachi and one-third of the women interviewed in Kathmandu reported some form of physical abuse during the last pregnancy or earlier ones. Twenty-two percent of women in Karachi said they were slapped and 11 percent of them mentioned forced sexual intercourse. In Kathmandu, 32 percent of women reported being slapped and 22 percent mentioned forced sexual intercourse.

Only 10 percent of women in Karachi and Kathmandu who were injured by domestic violence sought help. Among those who sought assistance, most women were looking for someone to “mediate on their behalf” or sought help “to prevent wife beating.” Women in both locations felt uncomfortable discussing domestic violence with health care providers and also felt that providers were uninterested and uncaring.

However, a little over half of the women interviewed in Karachi and nearly all the women interviewed in Kathmandu thought that an antenatal visit was an appropriate time for health care providers to routinely screen for domestic violence. In Karachi, women overwhelmingly identified doctors as the preferred health care provider to make this type of inquiry. In Kathmandu, women were about evenly split on whether a nurse or a doctor should make the inquiry.

The researchers also asked the women in Karachi and Kathmandu about the effects of domestic violence on their children. In Karachi, 49 percent of women said that their children had witnessed them being abused. Half of those children were physically abused as well. In Kathmandu, 44 percent of women said that their children had witnessed them being abused. Forty-eight percent of those children were also physically abused.

Proposed intervention strategies

Raising awareness about the enormity of physical abuse during pregnancy might motivate obstetricians to institute routine domestic violence screening. The investigators believe that interventions by the medical community, such as routine screening by obstetricians during antenatal visits, are necessary and will be welcomed by women. Appropriate counseling and referral systems must be instituted prior to implementing routine screening programs. Given the findings about the level of child abuse, program managers should develop separate interventions to stop child abuse.

“Detecting and preventing child abuse will be a key step in breaking the cycle of violence,” says Fikree. ■ September 2005

SOURCES


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