

Comparing the Quality of Three Models of Postabortion Care in Public Hospitals in Mexico City

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CONTEXT: Each year, an estimated 120,000 women in Mexico seek treatment in public hospitals for abortion-related complications—the country's fourth leading cause of maternal mortality. Models of postabortion care emphasizing counseling and provision of contraceptives have the potential to improve the quality of care these women receive.

METHODS: Between April 1997 and August 1998, women treated for abortion complications in six Mexican Institute of Social Security (IMSS) hospitals in the Mexico City metropolitan area were surveyed. Data related to patient-provider interaction, information provision and counseling were analyzed for three models of care: sharp curettage standard care, sharp curettage postabortion care and manual vacuum aspiration postabortion care.

RESULTS: Women in the two postabortion care groups rated the quality of services they received more highly than did those receiving sharp curettage standard care. A significantly greater proportion of women treated under the postabortion care models than of those treated under the sharp curettage standard model received information about their health status before treatment, the uterine evacuation procedure, signs of postabortion complications and care at home. In addition, a greater proportion of women treated under the postabortion care models accepted a contraceptive method before leaving the facility (64–78% vs. 40%).

CONCLUSIONS: Implementation of a postabortion care model contributes to the delivery of high-quality services to women experiencing abortion complications. The standard IMSS model of postabortion treatment should be modified to emulate those in hospitals that systematically link general counseling and family planning services to the clinical services provided to women with abortion complications.

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Women experiencing complications from a spontaneous or unsafely induced abortion have the right to receive high-quality health care services. Mexico affirmed this right with its endorsement of the 1994 International Conference on Population and Development (ICPD) Programme of Action, which recognizes unsafe abortion as a public health problem that all governments have the responsibility to address. Most important, the document states that “In all cases women should have access to quality services for the management of complications arising from abortion. Postabortion counseling, education and family planning services should be offered promptly, which will also help to avoid repeat abortions.”¹

In this article, we present the results of an operations research project carried out between April 1997 and August 1998 in six Mexican Institute of Social Security (IMSS) hospitals located in the Mexico City metropolitan area. The study examined the implementation of postabortion care as defined in the ICPD Programme of Action, using a quality of care framework² for the analysis.*

BACKGROUND

Abortion is the fourth leading cause of maternal mortality in Mexico, accounting for 8% of all registered maternal deaths.³ In part, this situation reflects limited access to safe

and legal abortion services. Given restrictive legislation and the small number of public health care providers and institutions that offer such services,[†] many women turn to unsafe practices and practitioners to end unwanted pregnancies. Complications of spontaneous abortions (miscarriages) that are not treated appropriately also contribute to abortion-related mortality.

Throughout Mexico, approximately 120,000 women receive abortion-related care every year in public-sector facilities.⁴ In 1997, slightly more than 56,000 of these women were treated at IMSS facilities—the most women served among any of the three major social security systems in Mexico.^{5‡}

*The IMSS provides services, including health care, to workers and their families on a prepaid fee basis (a proportion of each paycheck is removed for IMSS services). In 1999, the IMSS provided health care coverage to approximately 45 million people, almost one-half of the country's population. The IMSS does not cover government workers, who participate in the Instituto de Seguridad Servicios Sociales de los Trabajadores del Estado system.

†In Mexico, state laws define the varying situations under which abortion is legal. All states allow abortion when the pregnancy is the result of rape; some do so when the woman's life and health are endangered or when the fetus has severe congenital or genetic malformations. In Yucatan, abortion is legal for socioeconomic reasons (i.e., when a woman already has three or more children).

‡The Ministry of Health hospitals, which provide health care for the population not covered by social security, treated 64,363 women during this period.

FIGURE 1. Components of the three postabortion service delivery models

Model	General counseling	Family planning/contraceptive services
<p>SC Std. SC used as the clinical technique for uterine evacuation</p> <p>Pain control: general anesthesia</p>	<ul style="list-style-type: none"> • Information about her health status • Information about the clinical procedure 	<ul style="list-style-type: none"> • Information about reproductive risk and contraceptive methods available • Contraceptive methods offered • Informed consent obtained and method given to woman
<p>SC PAC SC used as the clinical technique for uterine evacuation</p> <p>Pain control: general anesthesia</p>	<ul style="list-style-type: none"> • Empathy and support for the woman, and identification of her emotional state and specific needs • Information about her health status • Information about the clinical procedure • Information about possible postprocedure complications, follow-up and care at home 	<ul style="list-style-type: none"> • Identification of women's reproductive intentions • Information and counseling about reproductive risk, return to fertility and contraceptive methods available • Contraceptive methods offered • Informed consent obtained and method given according to the needs and desire of the woman
<p>MVA PAC MVA used as the clinical technique for uterine evacuation</p> <p>Pain control: paracervical block, minor sedation when needed</p>	<ul style="list-style-type: none"> • Empathy and support for the woman, and identification of her emotional state and specific needs • Information about her health status • Information about the clinical procedure • Information about possible postprocedure complications, follow-up and care at home 	<ul style="list-style-type: none"> • Identification of women's reproductive intentions • Information and counseling about reproductive risk, return to fertility and contraceptive methods available • Contraceptive methods offered • Informed consent obtained and method given according to the needs and desire of the woman

Notes: SC Std.=sharp curettage standard care. SC PAC=sharp curettage postabortion care. MVA PAC=manual vacuum aspiration postabortion care.

In the IMSS system, women with abortion complications resulting from either spontaneous or induced abortion are treated in secondary- or tertiary-level hospitals. Sharp curettage has been used for uterine evacuation at both types of facilities. However, postabortion services have become more depersonalized over the years, and have turned into a “mechanized routine in which quality gradually deteriorated.”⁶

To improve the quality of abortion-related care, IMSS, in collaboration with Ipas, introduced manual vacuum aspiration into its facilities as an alternative to sharp curettage for the treatment of abortion complications and dysfunctional uterine bleeding. One major advantage of this technique is that it requires only local anesthesia, whereas sharp curettage is customarily performed under general anesthesia. Training sessions began in 1993 with the participation of obstetrician-gynecologists, anesthesiologists and nurses in three major obstetric and gynecological hospitals in the states of Jalisco and Mexico, as well as in Mexico City.

The trainers presented participating health care providers not only with the new technology, but also with a comprehensive model for providing care to women with abortion complications. By the mid-1990s, the focus of the training shifted toward the implementation of postabortion care, conceptualized as a package of services comprising treatment of incomplete abortion with manual vacuum aspiration, general counseling (empathy and support for the woman, and provision of health and medical information) and family planning counseling and services. From 1994 through 1997, a total of 1,325 health care professionals working in 23% of IMSS hospitals nationwide were trained in the use of manual vacuum aspiration and other aspects of the postabortion care package.⁷

Thus, between April 1997 and August 1998, when this study was conducted, postabortion services varied across

hospitals, in part according to whether postabortion care training had been held in the facility. In general, there were three basic models of care (Figure 1). Traditional service delivery—sharp curettage for the treatment of incomplete abortion and the provision of family planning information and methods to women—was the predominant model, given that most hospitals and personnel had not yet received postabortion care training. Women generally were offered contraceptive methods, although counseling and assessment of women's contraceptive needs based on their health status were not central components of traditional care.

In contrast, the two postabortion care models emphasized the importance of general counseling (communication with and support of the patient according to her specific needs) and family planning counseling and services. They differed, however, in the clinical technique used for uterine evacuation. Some hospitals incorporated manual vacuum aspiration into their scheme of service delivery (although the actual use of manual vacuum aspiration or sharp curettage was the provider's choice); others continued to use sharp curettage, while putting into practice other components of the postabortion care model.

In addition, a policy of short-stay ambulatory surgery for postabortion patients was put into place at IMSS facilities during the 1990s. Thus, whether manual vacuum aspiration or sharp curettage was used for uterine evacuation, women were served on an outpatient basis unless they have complications that require hospitalization. Regardless of the clinical technique used, the average length of stay in 1996 was approximately eight hours, compared with stays of 12–30 hours prior to the policy change.⁸

Given the varied ways in which postabortion care was delivered in IMSS facilities, policymakers were interested in identifying which of the three models of care was most

advantageous to patients, health care providers and the health care system. The results presented in this article focus on the components most relevant to advantages for women, but which ultimately also prove to be advantageous to both health care professionals and the system in which they work.

Previous postabortion care studies have examined outcomes such as acceptance of contraceptive methods, costs and provider-patient evaluation of services by comparing two different service delivery approaches: outpatient care (manual vacuum aspiration with family planning counseling and services) and inpatient care (sharp curettage with minimal or no family planning counseling or services).⁹ The organization of services, the surgical technique and the provision of referrals to family planning services varied between the two approaches. It is unclear, therefore, whether the differences were related to the surgical technique or to the implementation of a more comprehensive model of care that included family planning counseling and services.

The study presented in this article is the first to compare three models of care for women with abortion complications in which the surgical technique and delivery of family planning services are held constant, and in which the organization of services is standardized across all models. In addition, the study examines the important component of general counseling of postabortion patients in the two postabortion care models.

STUDY HYPOTHESES

The overall study aims to answer questions about the quality of postabortion services in the IMSS. We hypothesize that a greater proportion of women treated under the postabortion care models (manual vacuum aspiration postabortion care or sharp curettage postabortion care) than of those treated under the sharp curettage standard model receive information and support throughout their care, and that a greater proportion of women treated under the manual vacuum aspiration postabortion care model than of those treated under either sharp curettage model receive information and support throughout their care. In addition, we hypothesize that the proportion of women who accept a contraceptive method is greater among those treated under the manual vacuum aspiration and sharp curettage postabortion care models than among those receiving sharp curettage standard care, and that the proportion of women who accept a contraceptive method is greater among those treated by manual vacuum aspiration than among those treated by sharp curettage.

These hypotheses are related to two specific components of the quality of care framework for postabortion care that guided the design and analysis: information and counseling, and interactions between women and providers. They were based on the supposition that services delivered through a postabortion care model would be of higher quality than services focused mainly on the resolution of abortion complications. Manual vacuum aspiration postabortion care is tested separately from sharp curettage postabortion care because of 1994–1997 IMSS service sta-

tistics indicating that women treated with manual vacuum aspiration were significantly more likely than those treated with sharp curettage to receive a contraceptive method before leaving the hospital.¹⁰ In addition, physicians in the IMSS hypothesized that communication between health care providers and women is facilitated by use of manual vacuum aspiration because women remain conscious throughout the entire process.

DATA AND METHODS

Study Design

The research team employed a quasi-experimental posttest-only design in which six IMSS hospitals implementing one of the three models of care were chosen for inclusion in the study. We selected two IMSS hospitals using the manual vacuum aspiration postabortion care model, two hospitals using the sharp curettage postabortion care model and two hospitals using the sharp curettage standard model. The selected hospitals that used the manual vacuum aspiration postabortion care model or the sharp curettage postabortion care model had health care staff who had participated in the IMSS-Ipas postabortion care training in previous years; staff at the sharp curettage standard model sites had never participated in such training.

To ensure that the models of care were implemented according to the specifications of the research design, a team of physicians, nurses and social workers from the IMSS Reproductive Health Division conducted orientation sessions and refresher training with providers (obstetrician-gynecologists, nurses and social workers) who agreed to participate in the study.

Providers at the postabortion care sites received refresher training in general counseling and family planning counseling and services. In the manual vacuum aspiration postabortion care sites, participating providers had put the full model of care into practice following their original training one to three years prior to the study, whereas providers in the sharp curettage postabortion care sites continued to use sharp curettage and had not practiced the other postabortion care components in a systematic manner even after their original training. Thus, the refresher training served mainly as an orientation to the research protocol in the manual vacuum aspiration postabortion care sites, whereas it served as an intervention in the sharp curettage postabortion care sites. The additional years of experience in the hospitals using manual vacuum aspiration postabortion care led us to hypothesize that the quality of care in those sites would be higher than in sites using either sharp curettage model. Staff at sites using the sharp curettage standard model received general information about the objectives of the study but no refresher training because these hospitals served as control sites.

Sample

A hospital was eligible to participate in the study if it was an IMSS obstetrics-gynecology or general service hospital, was located within the Mexico City metropolitan area and

had treated at least 120 women with abortion complications per month in 1996. However, because most public hospitals were not using manual vacuum aspiration as the preferred method for uterine evacuation, we found it difficult to identify hospitals for the manual vacuum aspiration postabortion care model that met the criteria. Therefore, each of the two hospitals selected for the manual vacuum aspiration postabortion care model had treated at least 20% of all patients with abortion complications using manual vacuum aspiration in the year prior to the study, demonstrating that teams of trained health care providers working in those hospitals practiced the technique on an ongoing basis.

The willingness of the hospital director and staff to collaborate was essential to the project because the study team had to enter and occupy various areas of the facility for several weeks. Only one hospital of the six we originally approached declined to participate. In that case, the hospital's leadership was changing, and the administration could not make commitments for the incoming director.

We attempted to standardize the experience of obstetrician-gynecologists across all models. Those who participated in the manual vacuum aspiration postabortion care hospital teams were adept at using both manual vacuum aspiration and sharp curettage in their practice and had treated at least 20 women with each technique during the three months prior to the study. Obstetrician-gynecologists participating in the sharp curettage postabortion care and sharp curettage standard models had treated at least 20 women with sharp curettage in the three months prior to the study, but were not necessarily adept at using manual vacuum aspiration.

Women included in the study were admitted to facilities for the treatment of complications from an unsafely induced abortion performed outside the hospital or from a spontaneous abortion. No attempt was made in the study to distinguish explicitly between the two situations.

The uterine size of all participants was equivalent to that expected at 12 or fewer weeks' gestation, whether the evacuation technique used was manual vacuum aspiration or sharp curettage. This gestational age is the maximum for which the use of manual vacuum aspiration is recommended; thus, no women with a larger uterine size could enter the study from the manual vacuum aspiration postabortion care hospitals. Women with septic abortion, abortion in evolution or inevitable abortion were excluded from the study so that the results would not be confounded by the additional medical services required by women in these situations. All patients included in the study were treated during the morning and afternoon shifts, when providers who participated in the refresher training sessions were on duty. In general, women stayed in the hospital for only one shift.

In the hospitals chosen for the manual vacuum aspiration postabortion care model, the provider team agreed to use manual vacuum aspiration to treat all women admitted with the appropriate indications during the project pe-

TABLE 1. Percentage distributions and means reflecting selected background characteristics of postabortion patients, according to model of care

Characteristic	MVA PAC (N=251)	SC PAC (N=270)	SC Std. (N=282)
PERCENTAGE DISTRIBUTIONS			
Age			
<20	8.4	8.5	5.7
20–34	77.7	81.5	82.6
>35	13.9	10.0	11.7
Marital status			
Married/cohabiting	86.0	88.9	88.3
Single/separated/divorced	14.0	11.1	11.7
Education†			
None	6.0	6.3	7.8
Low	20.7	17.4	21.3
Intermediate	27.1	29.3	30.8
High	46.2	46.7	40.1
Occupation‡			
Housewife	45.6	45.1	45.0
Worker/employee	44.0	46.6	44.6
Vendor	1.6	1.9	2.1
Professional	3.6	3.4	4.6
Student	5.2	3.0	3.6
Total	100.0	100.0	100.0
MEANS			
No. of pregnancies	2.4	2.2	2.4
No. of abortions§	1.3	1.3	1.3
No. of living children	1.5	1.5	1.6

†None—never attended or did not complete primary school; low—completed primary or did not complete secondary school; intermediate—completed secondary school; and high—preparatory school or more, or technical school. ‡Ns were 250, 268 and 280 for the MVA PAC, SC PAC and SC Std. categories, respectively. §Spontaneous or induced not determined.

riod, and only these women were included in the study. In the other hospitals, all women were treated with sharp curettage; thus, no special arrangements had to be made with the teams.

Data Collection

Data collection took place after the refresher training sessions had been completed. Although we used various data collection methods in the overall study, this article presents only results from structured interviews with women treated for abortion complications. Hospital staff collaborated with the research team to identify women who fit the criteria for inclusion in the study. After obtaining informed consent, social workers (who were not hospital employees) trained in the study techniques asked women closed-ended questions at the time of their discharge from the hospital. The women were asked about their social and demographic characteristics; reproductive history; psychological-affective management during care; care before, during and after surgery; understanding of and participation in the surgical procedure; perception of pain before, during and after the procedure; and recommendations given to them for postprocedure care. Interviewers engaged in data collection over a period of 23 consecutive weeks in all of the study hospitals.

TABLE 2. Percentage of women who received information during care, by topic, according to model of care

Topic	MVA PAC (N=251)	SC PAC (N=270)	SC Std. (N=282)
Health status prior to uterine evacuation procedure			
General	78.5	82.2**	67.4***
Specific problem found by physician	83.7	87.0**	55.7***
Uterine evacuation procedure			
Instrument to be used	75.6*	11.5**	6.8***
Risks	57.2*	15.2**	5.8***
Possible discomfort	84.1*	30.9**	9.4***
Pain control to be used	80.0*	40.4**	14.4***
Signs of post-uterine evacuation complications			
General health problems	32.3*	36.6**	9.6***
Intense pain	30.3*	37.4**	5.7***
Bleeding for >2 weeks	29.6*	41.3**	9.3***
Fever	28.3	32.3**	4.7***
Chills	25.9	30.0**	4.3***
Foul-smelling vaginal discharge	22.8*	36.7**	2.2***
Care at home			
Where to seek help in case of complications	32.0*	42.0**	26.0***
Resumption of sexual relations	20.7*	39.6**	10.8***
Resumption of work	22.7*	35.2**	12.0***
Nutrition	16.8*	33.3**	8.0***
Medications to take (if any)	12.4*	31.1**	4.0***

*Difference between MVA PAC and SC PAC models significant at $p < .01$. **Difference between SC PAC and SC Std. models significant at $p < .01$. ***Difference between SC Std. and MVA PAC models significant at $p < .01$.

Data Analysis

We used SPSS 8.0 to carry out univariate, bivariate and multivariate analysis, employing Fisher's exact test (one-sided significance) and Student's t-test for equality of means statistics to determine differences in outcomes between models. Differences at the 95% confidence level were considered significant.

RESULTS

The research team interviewed a total of 803 women treated for abortion complications in the six study hospitals. The vast majority of women were 20–34 years of age, were married or cohabiting and identified themselves primarily as housewives, workers or employees (Table 1, page 115). Nearly half (40–47%) had some education beyond secondary school. On average, women had been pregnant twice, had 1.5 living children and had had 1.3 abortions, with the index abortion being their first. Women in the three study groups were similar in terms of age, marital status, education, occupation and reproductive history.

Overall, 44% of all women in the study said they had planned the pregnancy that ended in abortion, but 77% indicated that they had wanted to become pregnant. Three-quarters of all women stated that they would like to become pregnant again, but most (95–99%) wanted to wait at least six months, thereby indicating a need for effective postabortion family planning.

Sixty-two percent of the women had used a contraceptive method at some time. Of this group, 49% had used an IUD, 15% oral contraceptives, 13% condoms, 9% the rhythm method, 8% the injectable, 3% withdrawal, 2% sper-

micides and 1% tubal ligation. Women's most common reasons for having stopped using a method were the desire to become pregnant (40%), contraceptive failure (39%) and side effects of the contraceptive method (12%). Of the 38% of women who had never used a contraceptive method, 44% wanted to become pregnant, whereas smaller proportions did not believe that they were at risk of becoming pregnant (24%), feared the side effects of contraceptives (11%), did not expect to have intercourse (6%), had a partner who did not want to use a method (3%) or did not know any method (2%). Fewer than 1% gave any other single reason.

Statistically significant differences were found between the postabortion care models and conventional service provision (sharp curettage standard) in regard to whether women received information about their health status, the uterine evacuation procedure, signs of possible postprocedural complications, where to seek help in case of complications and follow-up care at home (Table 2). For each variable, a significantly greater proportion of women in the two postabortion care groups than of those in the sharp curettage standard care group indicated that they had received each type of information.

Among women in the postabortion care groups, significantly greater proportions of women treated with manual vacuum aspiration (57–84%) than of those treated with sharp curettage (12–40%) received information about the uterine evacuation procedure (e.g., what instrument and pain-management methods would be used, procedure-related risks and the likelihood of discomfort during the procedure). These differences probably reflect the fact that women are conscious during the procedure using manual vacuum aspiration but not the one using sharp curettage. Thus, manual vacuum aspiration providers may offer in-

TABLE 3. Percentage of women who received information and counseling about future pregnancy and were offered contraceptive methods, by topic, according to model of care

Topic	MVA PAC (N=247)	SC PAC (N=270)	SC Std. (N=282)
Future pregnancy			
Advantages of preventing immediate pregnancy	64.5*	84.4**	29.4***
Pregnancy prevention	74.1	74.1**	33.0***
Plans to become pregnant	60.2*	71.4**	29.5***
Willingness to use a contraceptive method	87.3*	97.4**	65.2***
Possibility of pregnancy during unprotected intercourse†	49.7*	64.1**	43.9
Resumption of menstrual period‡	23.2	29.7**	15.9
Methods offered by hospital staff‡			
No method offered	12.4*	5.9**	31.9***
IUD	81.7*	90.0**	59.2***
Injectable	12.4*	28.9**	13.8
Oral contraceptives	14.7*	37.4**	12.1
Tubal sterilization	12.4	15.6**	7.8***

*Difference between MVA PAC and SC PAC models significant at $p < .01$. **Difference between SC PAC and SC Std. models significant at $p < .01$. ***Difference between SC Std. and MVA PAC models significant at $p < .01$. †Among women who responded "yes" to whether a physician or nurse had asked about their plans to become pregnant again. ‡Women were able to give more than one response.

formation to women to make them feel more at ease during the procedure, which then goes more smoothly.

On the other hand, significantly greater proportions of women treated under the sharp curettage postabortion care model (37–41%) than of those in the manual vacuum aspiration postabortion care model (23–32%) reported receiving information about signs of possible complications, including general health problems, intense pain, chronic bleeding and a foul-smelling vaginal discharge. Likewise, significant differences existed between the two models for all types of information on postprocedure home care.

In analyses examining receipt of information and counseling about future pregnancy, significantly greater proportions of those in the sharp curettage postabortion care group (30–97%) than of those in the sharp curettage standard care group (16–65%) had received information or counseling on each of six measures (Table 3). Significant differences also were found between manual vacuum aspiration postabortion care and sharp curettage standard care on four measures: the advantages of preventing immediate pregnancy, how to prevent pregnancy, plans to become pregnant again and willingness to use contraceptives. When we compared the two postabortion care models, significantly greater proportions of women in the sharp curettage model than of those in the manual vacuum aspiration model had talked to a provider about the advantages of preventing immediate pregnancy, plans to become pregnant again, willingness to use contraceptives and the possibility of pregnancy if unprotected sexual relations occurred.

Thirty-two percent of women in the sharp curettage standard care group were not offered any contraceptive method by hospital staff, compared with 6–12% of women treated in the postabortion care groups. In all three groups, the IUD was the most commonly offered method (59–90%), followed by the pill (12–37%) and the injectable (12–29%). The methods presented to women reflect the IMSS policy of offering permanent methods and temporary methods that have high continuity rates.

The majority of women cared for in hospitals using one of the two postabortion care models received a contraceptive before leaving (Table 4). A significantly greater proportion of women in the sharp curettage postabortion care group (78%) than of those in the manual vacuum aspiration postabortion care group (64%) or the sharp curettage standard care group (40%) received a method. Of women who left the hospital with a method, at least three-quarters (74–85%) in each of the three groups received an IUD; a significantly greater proportion of women in the manual vacuum aspiration postabortion care group than of those in the sharp curettage postabortion care group received an IUD.

Almost all of the women (92–97%) in each of the models reported that they were satisfied with the contraceptive method they received.* Eighty-two percent perceived the method to be effective and convenient (not shown). Of those who were not satisfied with the method they received, 31% reported that they had become pregnant while using the method, 22% had experienced pain and cramping and 13%

TABLE 4. Percentage distributions and percentages of women, by characteristics related to contraceptive services received, according to model of care

Characteristic or topic	MVA PAC (N=247)	SC PAC (N=266)	SC Std. (N=260)
PERCENTAGE DISTRIBUTIONS			
Received a method before leaving hospital			
Yes	64.4*	77.8**	39.6***
No	25.6	22.2	60.4
Type of method received†			
IUD	84.9*	74.4	79.6
Oral contraceptives	6.3*	16.4**	3.9
Injectable	6.9	8.7**	15.5***
Other	1.9	0.5	1.0
Satisfied with the method received†			
Yes	94.9	96.9	92.1
No	5.1	3.1	7.9
Total	100.0	100.0	100.0
PERCENTAGES			
Information about the method received†			
Effectiveness	56.6	53.1**	28.2***
Possible advantages	54.7	51.2**	25.2***
Risks	43.4	47.3**	15.5***
Secondary effects	40.3	44.9**	10.7***
How to use	52.8	51.7**	20.4***
Follow-up care	55.3	62.3**	22.3***
Method selection†			
Chosen by the woman	43.4*	80.2**	37.9
Offered by a physician	17.0	16.9	25.2***
Chosen by woman and physician together	32.7*	6.8**	20.4***
Imposed by physician	6.9*	1.9**	18.4***
Most commonly mentioned reasons for not receiving a method before leaving hospital‡			
Insufficient information provided to make a choice	10.2*	0.0**	27.3***
Did not want a method	48.9*	76.3**	45.5
Medical indications	17.0	16.9**	3.2***
No options presented	1.1	1.7**	6.5***

*Difference between MVA PAC and SC PAC models significant at $p < .01$. **Difference between SC PAC and SC Std. models significant at $p < .01$. ***Difference between SC Std. and MVA PAC models significant at $p < .01$. †Among those who received a method. ‡Among those who did not receive a method.

had not received enough information about the method; the remaining women were unfamiliar with the suggested method, were afraid of the method or believed that the method was unsafe.

Regardless of the method received, a significantly greater proportion of women in the postabortion care groups (40–62%) than of those in the sharp curettage standard care groups (11–28%) were given information about their chosen method. No differences were found between the two postabortion care groups in terms of the information women received about their method.

Women's perception of who chose the contraceptive method varied according to the model of care. Overall, more than half (58–87%) of women in each model felt that they alone had chosen the method or that they had decided upon the method along with the attending physician. However, significantly greater proportions of women treated under

*We did not ask if women had received their method of choice.

the manual vacuum aspiration postabortion care (7%) and sharp curettage standard care models (18%) than of those treated under the sharp curettage postabortion care model (2%) perceived that their physician had imposed a particular contraceptive method on them.

Women who left the hospital without a contraceptive method most commonly did so because they did not want a method; a greater proportion of women in the sharp curettage postabortion care model (76%) than of those in the other models (46–49%) gave this reason. One-third of women treated under the sharp curettage standard model left the hospital without a contraceptive method because they did not receive sufficient information to make a choice (27%) or because they were not presented with any options (7%).

The vast majority of women (93%) indicated that they had arrived at the hospital with worries and concerns (not shown). When asked to name their primary concern, 42% had fears related to their health status and whether they would receive good care; 23% were concerned that they had lost the pregnancy (often referred to by women as “losing the baby”); and 11% were worried about their children, whom they had left alone, with other children or with friends and family members.

More than 90% of women in each study group reported trusting their hospital caregivers; that proportion was significantly higher among women in the two postabortion care groups (99% each) than among those in the sharp curettage standard care group (93%). However, much smaller proportions felt their concerns had been identified: Fifty-eight percent of women in the manual vacuum aspiration postabortion care group reported that hospital staff had identified their main concerns during their time in the hospital, compared with 48% of those in the sharp curettage postabortion care group and 34% of those in the sharp curettage standard care group. Once again, the difference between each of the postabortion care models and the sharp curettage standard model was significant; the difference between the two postabortion care models was also significant. Among women who felt that their concerns had been identified, 96% of those treated under the postabortion care models perceived that the hospital staff had helped them to address their concerns, compared with 80% of the women in the sharp curettage standard care group. Ward physicians and nurses were the staff identified most often by women as having helped them.

DISCUSSION

It has been suggested that for health care systems to move from a biomedical model of practice to one of health promotion, health care professionals need to view their clients as capable of and responsible for making important decisions that affect their lives.¹¹ In this view, the role of health care providers evolves from one of managing information and making decisions related to patient care to one of providing medical information to patients so that they can fully exercise choice and decision-making about their care and overall health. The latter approach is used by health care

providers who implement a postabortion care model.

A greater proportion of women treated under the postabortion care models than under the sharp curettage standard model left the hospital with information about their bodies and health, and with a sense that their needs, concerns and expectations were considered. Of women who left the hospital with a contraceptive method, those in the postabortion care models were more likely than women in the sharp curettage standard care model to receive information about the method and to feel that they had played a role in choosing it. We attribute this difference to the implementation of a postabortion care model by health care teams in hospitals.

Similar results are found in recent studies on postabortion care in Mexico and Central America in which information and counseling were linked strongly to women’s positive evaluation of the quality of care and to acceptance of a contraceptive method with which they felt satisfied.¹² Overall, the findings from our study support the expansion of the essential elements of postabortion care to include counseling as separate from and as important as contraceptive and family planning services.¹³

However, the results do not support our hypothesis that manual vacuum aspiration postabortion care results in better quality of care than sharp curettage postabortion care. There were significant differences between the two postabortion care models on numerous variables, and the overall results favored the sharp curettage postabortion care approach over the manual vacuum aspiration postabortion care approach. A greater proportion of women treated under the manual vacuum aspiration postabortion care model received information about the uterine evacuation itself, at least in part because patients are conscious during the procedure; however, a greater proportion of women treated with sharp curettage postabortion care reported leaving the hospital with a contraceptive method as well as receiving information about care at home and future pregnancy. The latter findings result in part from staffing difficulties within one of the manual vacuum aspiration postabortion care hospitals throughout the study and to the excellent internal organization of the two sharp curettage postabortion care sites. These results also highlight the effects of long-term challenges to incorporating manual vacuum aspiration in IMSS postabortion care services as an institutionalized alternative to sharp curettage. The overall conclusion, therefore, is that the implementation of a postabortion care model rather than the clinical technique itself is the determining factor in the information and counseling that women receive.

However, the resolution of abortion complications can save women’s lives and protect their health. Manual vacuum aspiration gives providers another safe and effective option.¹⁴ In addition, vacuum aspiration is the surgical technique recommended by the World Health Organization for use in health centers and hospitals.¹⁵ Results from this operations research study published elsewhere show that manual vacuum aspiration use is as safe and effective as sharp

curettage.¹⁶ Overall, the process of introducing a new technology into health services provides opportunities for innovation regarding service delivery. In this way, manual vacuum aspiration, accompanied by a postabortion care model, can be used as an important tool for improving services.

In conclusion, the findings from this study suggest the importance of documenting the effectiveness of the expanded model of postabortion care services, in particular the counseling component, on the quality of care offered to women.¹⁷ As part of this documentation, more in-depth qualitative studies that follow up with women obtaining postabortion care services over time are needed.

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RESUMEN

Contexto: Se calcula que cada año, unas 120.000 mujeres en México buscan tratamiento en los hospitales públicos por complicaciones causadas por el aborto, la cuarta causa de mortalidad materna. Los modelos de atención postaborto que destacan la importancia de la consejería y el suministro de anticonceptivos tienen el potencial de mejorar la calidad de la atención que reciben estas mujeres.

Métodos: Entre abril de 1997 y agosto de 1998, se entrevistaron a mujeres que recibieron tratamiento debido a complicaciones causadas por abortos en seis hospitales del Instituto Mexicano del Seguro Social (IMSS), ubicados en la zona metropolitana de la Ciudad de México. Se analizaron los datos relacionados con la interacción entre las pacientes y los proveedores, el suministro de información y las actividades de consejería correspondientes a tres modelos de atención: legrado estándar utilizando cureta, legrado con cureta postaborto y legrado postaborto por aspiración manual.

Resultados: Las mujeres de los grupos que recibieron atención postaborto asignaron un valor superior al servicio recibido comparado con aquellas que recibieron el legrado estándar utilizando cureta. Un porcentaje significativamente mayor de mujeres tratadas con los modelos de atención postaborto que las que fueron tratadas con el modelo estándar recibieron información acerca de su condición de salud, así como sobre el procedimiento de evacuación uterina, los síntomas de complicaciones postaborto y la atención a domicilio. Además, un mayor porcentaje de mujeres tratadas con los modelos postaborto aceptaron un método anticonceptivo antes de retirarse de la clínica (64-78% vs. 40%).

Conclusiones: La implementación de un modelo de atención postaborto contribuye a la prestación de servicios de alta calidad a las mujeres que sufren complicaciones causadas por el aborto. El modelo estándar del IMSS para el tratamiento postaborto debería ser modificado para emular a los hospitales que sistemáticamente vinculan los servicios generales de consejería y de planificación familiar a los servicios clínicos prestados a mujeres que tienen complicaciones causadas por el aborto.

RÉSUMÉ

Contexte: On estime à 120.000 le nombre de Mexicaines se faisant traiter chaque année dans les hôpitaux de l'État pour cause de complications liées à l'avortement—quatrième cause nationale de mortalité maternelle. Les modèles de soins post-

avortement mettant l'accent sur le conseil et la fourniture de contraceptifs ont le potentiel d'améliorer la qualité des soins que reçoivent ces femmes.

Méthodes: Entre les mois d'avril 1997 et août 1998, une enquête a été menée auprès des femmes traitées pour les complications d'un avortement dans six hôpitaux de l'IMSS (Institut mexicain de la sécurité sociale) de la région métropolitaine de Mexico. Les données relatives à l'interaction entre patiente et prestataire, à l'offre d'information et au conseil ont été analysées pour trois modèles de soins: curetage standard, curetage post-avortement et aspiration manuelle sous vide post-avortement.

Résultats: Les femmes des deux groupes de soins post-avortement ont évalué plus favorablement la qualité des services reçus que celles qui avaient reçu des soins standard de curetage. Par rapport aux femmes traitées sous le modèle de soins standard de curetage, une proportion significativement supérieure de celles traitées sous les modèles de soins post-avortement avaient été informées sur leur état de santé, sur la procédure d'évacuation utérine, sur les signes de complications de l'avortement et sur les soins à domicile. Une plus grande proportion des femmes traitées sous les modèles de soins post-avortement avaient du

reste accepté une méthode contraceptive avant de quitter l'établissement (64% à 78% par rapport à 40%).

Conclusions: La mise en œuvre d'un modèle de soins post-avortement contribue à la prestation de services de haute qualité aux femmes atteintes de complications d'un avortement. Le modèle IMSS standard du traitement après avortement devrait être modifié de manière à émuler les hôpitaux qui associent systématiquement les services généraux de conseil et de planning familial aux prestations cliniques offertes aux femmes atteintes de complications d'un avortement.

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