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The Severity and Management of Complications Among Postabortion Patients Treated in Kinshasa Health Facilities

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Abstract

CONTEXT: Unsafe abortion is common in Kinshasa, which contributes to high rates of maternal morbidity and mortality. Little is known about the complications and treatment experienced by women seeking postabortion care at health facilities in the city.

METHODS: Data from 867 women admitted to a sample of health facilities providing postabortion care in Kinshasa in 2016 were drawn from a Prospective Morbidity Survey. A measure of severity of postabortion complications was developed on the basis of information from these women and their primary care provider. Generalized ordered logistic regression analyses were used to examine associations between the characteristics of postabortion care patients and complication severity.

RESULTS: Nearly three-fourths (72%) of postabortion care patients were classified as certainly having had an induced abortion, and another 16% as probably having had one. Sixteen percent of postabortion care patients experienced severe complications, 46% moderate complications and 33% mild complications; 5% had no evidence of complications. Severity of complications was associated with certain patient characteristics: For example, poor patients and those who had never been married had elevated odds of having experienced severe or moderate complications rather than mild or no complications (odds ratios, 1.8–1.9). Patients' complications were most commonly treated with such outdated methods as dilation and curettage and digital curettage (49% and 23%, respectively); only 11% of patients received medication for pain.

CONCLUSIONS: Policies and programs promoting contraceptive use and safe legal abortion are needed in Kinshasa to reduce women's recourse to unsafe abortion. Improved quality postabortion care provision is also needed, including World Health Organization–recommended methods.

Although women's access to safe induced abortion seems to be improving in many parts of the world, largely because of increasing access to such safer abortion methods as medication abortion and manual or electric vacuum aspiration (MVA/EVA), unsafe abortion continues to

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be a major health problem in countries where abortion is restricted.[1] Most countries in Africa have restrictive abortion laws,[1] and according to a recent study, the region suffers the greatest burden of complications from this preventable problem.[2] Of the 55.7 million induced abortions that took place around the world each year between 2010 and 2014, about 45% were unsafe, and nearly all of those (97%) occurred in developing countries–mainly in Africa and Latin America. Disaggregating unsafe abortions into two groups shows that 68% were considered "less safe" (i.e., performed by a trained provider using a method not recommended by the World Health Organization [WHO], or by someone untrained using a recommended method, such as misoprostol), and 32% were considered "least safe" (i.e., performed by someone untrained using a non-recommended method).

Twenty-two percent of unsafe abortions in developing countries in Asia and Latin America were classified as least safe;[2] however, the figure is significantly higher for Africa (63%), largely because of the very high level in Sub-Saharan Africa. This points to a dire need to address the issue of unsafe abortion and its consequences—including maternal death–in the region. A 2012 systematic review found that an estimated 4,195 abortion-related morbidities occur per 100,000 live births in countries where abortion is generally unsafe.[3] Another study estimated that about 1.3 million women aged 15–44 were treated for complications of abortion in health facilities across Sub-Saharan Africa in 2012.[4] Although all of these morbidities may not have resulted from induced abortion, most are likely to have, given that only late-term miscarriages (which are relatively rare) typically result in complications that require treatment in a health facility.[5,6]

Although anecdotal evidence suggests that induced abortion is common in the Demographic Republic of Congo (DRC), especially in the capital city of Kinshasa, until recently, there were no reliable data indicating the extent of its prevalence. According to a study conducted in Kinshasa in 2016, an estimated 146,713 induced abortions occurred that year (which translates to an abortion rate of 56 per 1,000 women aged 15–49), and 37,865 women obtained treatment at a health facility for complications of induced abortion;[7] however, these are likely to be underestimates because not all women who have abortion-related complications seek treatment in a health facility for various reasons (e.g., distance, cost, stigma and death).

The low level of contraceptive use in the DRC— including in Kinshasa, where only 22% of all women and 27% of married women were using a modern contraceptive in 2017[8]—and the increasing desire for smaller families— especially in the capital city—suggest that the incidence of unsafe abortion and associated complications will likely remain high or even increase without greater contraceptive use or access to safe abortion. Although we now have estimates of induced abortion and complications of unsafe abortion in Kinshasa, we lack detailed information on the nature of complications postabortion care patients experience and the treatment they receive. This information is essential to better support policy and programs aimed at addressing the problem of unsafe abortion. This article examines the immediate health consequences of postabortion complications among women admitted into health facilities in Kinshasa and describes how they are managed by the city's fragile health system. Specifically, it explores postabortion care patients' characteristics, the nature and severity of their complications, and the type of treatment they receive.

METHODS

Data

This study is part of a larger one aimed at estimating the incidence of induced abortion and the severity of unsafe abortion morbidity in Kinshasa.[7] We used data collected from that study's Prospective Morbidity Survey (PMS)—a probability sample survey of women who presented for postabortion care between July and August 2016 at a representative sample of public and private (including nongovernmental organization–run) health facilities with capacity to treat abortion-related complications in Kinshasa. All facilities that reported providing postabortion care in the larger study's Health Facilities Survey were eligible to participate in the PMS.

The PMS consisted of two components: interviews of women treated for postabortion care in a sample facility and interviews of those women's primary care providers. We recruited health facility staff to serve as interviewers in their respective facilities because they were in a position to know when postabortion care patients were being admitted and treated, and an appropriate time to conduct interviews with patients and their providers. We requested each eligible health center to choose one staff member, and each hospital to choose two staff members, to participate in a three-day training. Approval for this study was obtained from the institutional review boards of the Guttmacher Institute and the University of Kinshasa School of Public Health.

All postabortion care patients—regardless of whether they were treated as an inpatient or outpatient, or for complications of induced or spontaneous abortion—were eligible to participate. An interviewer would approach patients once they were in stable condition and seek informed consent to conduct the interview. If an interviewer was the patient's primary care provider, he or she had to ask another interviewer in the facility (if there was one) or his or her supervisor to conduct the interview. We did not allow providers to interview their own patients because patients might have had concerns that their decision to participate in the survey or their responses might affect their treatment. After the interview, the interviewer asked for the respondent's consent to interview her provider. If the patient gave consent, then the interviewer approached the patient's provider to obtain his or her consent to be interviewed.

Consenting patients and providers were interviewed using structured questionnaires. The patient questionnaire consisted of five sections: background characteristics, reproductive history, experience of unintended pregnancy, history of physical conditions at the time of admission, and sexual and domestic violence; our analysis draws largely from the first four sections. The provider questionnaire also consisted of five sections: diagnosis on arrival to facility, treatment received, surgical procedures for complications, postabortion contraceptive services and outcome of clinical management of current care.

For various reasons, not all eligible patients were interviewed. Thus, interviewers marked on a tracking form the number of missed cases and the primary reason they were missed. Keeping track of missed cases enabled the study team to determine the total number of

women treated for abortion complications during the 30-day study period. If a patient was not interviewed, then their provider was not contacted for an interview.

Of the 262 facilities eligible to participate in the PMS, 223 participated, for a response rate of 85%; refusal to participate was the most common reason for non-response. The facility sample included all university, provincial and other public hospitals in Kinshasa; 82% of public health centers; 85% of private or nongovernmental organization (NGO) hospitals; and 82% of private or NGO health centers. Some 1,031 women presented at participating facilities with abortion complications during the study period. Of those, 20 did not complete the interview, 32 refused to be interviewed, 59 were in the facility when no interviewer was available, 12 were referred to another facility before they could be interviewed, three were too sick to be interviewed and three died. Thus, interviews were successfully completed with 902 patients, for a response rate of 88%. Data from both surveys were merged to create a single record. We limited our analysis to data from 867 cases with complete information from patients and their primary care provider.

Likelihood the Abortion Was Induced

In a context such as Kinshasa where abortion is legally restricted, women seeking postabortion care may not disclose to their health care provider that they had had an induced abortion. Thus, it is often difficult for providers to accurately determine whether a patient's complications resulted from a spontaneous or an induced abortion. For this study, we used an algorithm developed by WHO to help make this determination,[9] which allowed us to estimate the proportion of complications due to voluntary pregnancy termination, and to compare respondents who likely had unsafe induced abortions and those who likely had miscarriages.

On the basis of information from both the patient and the provider, the algorithm classifies postabortion care patients into four mutually exclusive groups (Table 1). A patient is classified as certainly having had an induced abortion if she said she had done something to cause the abortion, or if her provider reported suspecting that she had done so or finding evidence of trauma or of a foreign body in the genital tract. A patient is classified as probably having had an induced abortion if the provider reported finding evidence of sepsis or peritonitis and if the patient reported that the pregnancy was unplanned (i.e., she had not been using a contraceptive method at the time of conception, or that she did not want the pregnancy at the time or at all); if only one of the previous occurred, the patient is classified as possibly having had an induced abortion. Finally, a patient who does not fit any of the other categories is classified as likely having had a spontaneous abortion. Only one patient in our sample was classified as probably having had an induced abortion, so we merged that case with the possibly induced abortion group to create three categories: "certainly induced," "possibly induced" and "spontaneous."

We used generalized ordered logistic regression analysis to examine whether characteristics of postabortion care patients were associated with the likelihood of having had an induced abortion. We estimated a partial proportional odds (PPO) model for ordinal dependent variables (executable with the gologit2 command in Stata),[10,11] instead of the usual ordered logit model, because some of our independent variables did not meet the proportional odds

assumption. Therefore, for the variables that violate the proportional odds assumption, we report two sets of odds ratios instead of one.

The dependent variable for this analysis was the three-category, ordinal variable of likelihood that a patient's abortion was induced (described above), which was coded as 0 for "spontaneous abortion," 1 for "possibly induced abortion" and 2 for "certainly induced abortion." The explanatory variables included patient's age (15–19, 20–24, 25–29, 30–34 and 35–49), marital status (married or not married), education (primary or less, incomplete secondary, completed secondary and tertiary) and previous induced abortion history (none or at least one). In addition, a measure of poverty status (poor or nonpoor) was constructed using a battery of household possessions following the approach used by the Demographic and Health Survey to construct the household wealth index variable in the DHS standard recode dataset.[12,13] Given that women who received treatment for abortion complications were not representative of all women of reproductive age, we standardized this measure to match the distribution of the poverty measure in the 2014 Demographic and Health Survey for DRC, which is a representative sample of women of reproductive age. We also included a measure of gestational age at the time the index pregnancy was terminated. Five patients reported a pregnancy ending in the third trimester; we combined these cases with those reported ending in the second trimester to create a dichotomous measure (first trimester or after first trimester).

Severity and Management of Postabortion Complications

To determine the severity of abortion-related complications, we used the Prospective Morbidity Methodology (PMM) to analyze data from both postabortion care patients and their providers on the type of complications patients experienced, their conditions at the time of admission and the treatment they received. This methodology was originally developed by WHO,[8] and later modified by Ipas.[14]

For this study, we made two major modifications to the methodology. First, instead of obtaining all information from the patient's provider, we obtained some from the patient, including background characteristics as well as information on abortion and complication experiences.[15] Second, we modified the original severity criteria to improve the objectivity of the clinical criteria, overall reliability, and content and context validity.[16] The original criteria—proposed by Rees et al.[17]—were used in prior studies to classify abortion morbidity into three categories: "mild," "moderate" and "severe."[18–21] For this study, we added a "no morbidity" category to account for the fact that women may use misoprostol to induce an abortion and then present at a health facility with perceived complications, when in fact they have normal bleeding and the abortion likely would have completed on its own without intervention (Table 2). We also avoided the use of stand-alone clinical signs (e.g., fever and tachycardia) which may lead to overestimation of severity. Furthermore, we removed "evidence of a foreign body" as a sole criterion for severe complications, as this may not indicate severe morbidity and is based on subjective provider reports that may be affected by stigma and restrictive abortion laws.

Again, because some of our independent variables violate the proportional odds assumption, we estimated a PPO model for ordinal dependent variables to examine the relationship

between postabortion care patients' characteristics and severity of postabortion complications to determine how severity may vary by patient subgroup. The outcome variable was severity of postabortion complications, which we reclassified as a three-category measure by combining the "no morbidity" and "mild" categories; the variable was coded 0 for "none or mild," 1 for "moderate" and 2 for "severe." The explanatory variables were the same as in the likelihood of induced abortion model, except we expanded marital status to four categories (single, married, living together with a man and separated or widowed) and we added an explanatory dichotomous variable for whether the patient reported inducing the abortion.

Finally, through a series of cross-tabulations, we examined a number of measures of clinical management and treatment of complications by severity of postabortion complications. The measures included method of evacuation; whether the patient received a contraceptive method, received pain medication and reported inducing the abortion; estimated gestational age at the time the pregnancy was terminated; and time patient spent in the health facility.

RESULTS

Likelihood the Abortion Was Induced

Seventy-two percent of the postabortion patients in our sample were categorized as certainly having had an induced abortion (Figure 1); of those, 58% reported having induced their abortion, while for the remaining 42%, their provider made the determination (not shown). Some 16% of patients were categorized as possibly having had an induced abortion, and 12% were categorized as having had a spontaneous abortion.

Thirty-nine percent of patients were 15–24 years old, 44% were 25–34, and 17% were 35–49 (Table 3). Three-fifths were not married, and the same proportion were nonpoor. Thirteen percent of patients had a primary education or less, 71% had a complete or incomplete secondary education, and 16% had at least some college. The majority reported not having had a previous abortion and that the index pregnancy had ended during the first trimester (73% and 81%, respectively).

In logistic regression analyses, patients aged 20–24 were more likely than those 35–49 to have certainly had an induced abortion rather than possibly had an induced abortion or had a spontaneous abortion (odds ratio, 2.1). Women who were not formally married had much greater odds than married women of certainly or possibly having had an induced abortion rather than having had a spontaneous abortion (13.6); nonmarried women were also more likely to have certainly had an induced abortion rather than possibly had one or had a spontaneous abortion (3.5). Having had at least one previous abortion was positively associated with certainly or possibly having had an induced an abortion (2.1); the outcome was also positively associated with being poor (1.4), although the finding was only marginally significant.

Severity of Postabortion Complications

Overall, 16% of postabortion care patients had complications categorized as severe, 46% as moderate and 33% as mild (Figure 2); the remaining 5% had no evidence of complications.

Severity of postabortion complications varied by the patients' characteristics (Table 4). Women aged 20–24 had half the odds of those aged 35–49 of having had severe or moderate complications rather than mild or no complications (odds ratio, 0.5); similarly, patients aged 25–29 were less likely than those aged 35–49 to have had severe complications rather than moderate, mild or no complications (0.3). Patients who were single or cohabiting had nearly twice the odds of those who were formally married, and poor patients had nearly twice the odds of nonpoor women, of having had severe or moderate complications rather than mild ones or none (1.8–1.9). In addition, having had a previous abortion was negatively associated with experiencing severe complications rather than moderate, mild or no complications (0.6), whereas having had the index pregnancy end after the first trimester was positively associated with the outcome (3.7). Finally, patients who reported having induced the abortion were more likely than those who reported having had a spontaneous abortion to have experienced severe or moderate complications rather than mild or no complications (1.7).

Clinical Management and Treatment of Complications

Dilation and curettage (D&C) was the method of evacuation most commonly used to treat postabortion patients (49%; Table 5), followed by digital curettage (23%) and MVA/EVA (14%). D&C was more commonly used to treat severe and moderate complications than mild or no complications (52% each vs. 45%), whereas the opposite was true for MVA/EVA (12% each vs. 17%); digital curettage tended to be used more to treat nonsevere rather than severe complications (23–25% vs. 17%). Fifty-four percent of women who presented for postabortion care were treated by physicians, and 46% were treated by midlevel providers (e.g., nurses and midwives). A greater proportion of patients with severe complications were treated by physicians than by midlevel providers (67% vs. 33%); patients with mild or no complications were also more commonly treated by physicians (54% vs. 46%). Overall, just 11% of postabortion care patients received any pain medication. Fifteen percent of women with severe complications received pain medication; the figures for patients with moderate or with mild or no complications were 11% and 9%, respectively. In addition, only 15% of women received a contraceptive method upon being discharged; the proportions of patients who received a method were 20% among women with severe complications, 16% among those with moderate complications, and 13% among those with mild or no complications.

DISCUSSION

This article presents the first comprehensive assessment of the severity of unsafe abortion complications treated in health facilities in Kinshasa. We classified nearly three-fourths of the postabortion care patients in our sample as certainly having had an induced abortion, and another 16% as possibly having had one. Half of patients experienced moderate complications, and another 16% experienced severe ones, such as shock, organ failure, generalized peritonitis and death. These findings suggest that unsafe abortion is a major problem in the city. According to a previous study of the incidence of abortion in Kinshasa,[7] an estimated 26% of the 146,713 women who had an induced abortion in 2016 were treated for complications in health facilities. Thus, given our findings, an estimated 23,325 of those women experienced severe or moderate complications. This represents a huge and

preventable economic and social burden on the fragile health system, as well as on women and their households.

Another potential issue for concern is whether the low-level private facilities that handle most postabortion care cases in Kinshasa have the capability to provide the appropriate care that women need. For example, we found that only 11% of postabortion care patients received any medication for pain. In addition, use of outdated evacuation methods—such as D&C—was prevalent, whereas use of WHO-recommended methods—such as MVA[22]—was limited. It has been reported that concerns that these methods would be used for performing induced abortion have prevented policy makers and facility leaders in some Sub-Saharan Africa countries to promote or provide easy access to them, especially in public facilities.[23,24] Yet, with or without them, abortions are happening, albeit unsafely.

According to knowledgeable informants interviewed in the abortion incidence study,[7] not all women who experience induced abortion–related complications serious enough to require treatment seek care from a health facility. Some obtain care from traditional providers, or from a quack “doctor” or “nurse,” and others do not obtain care at all. Whatever the case may be, these women would likely receive less adequate care than that received in a formal health facility. Improving women’s access to abortion care will involve addressing the issue of the small number of government facilities currently providing abortion care in Kinshasa. This is important given that many women and their families cannot afford such care from the private sector.

In this study, most severe and moderate complications likely resulted from induced abortion. In addition, the severity of postabortion complications varied by patient subgroup. For example, being single and being poor were positively associated with experiencing severe or moderate complications rather than mild or no complications. These findings support the limited evidence about differential access to safe abortion in DRC and elsewhere: Single and poor women in DRC typically lack access to information and financial resources that can facilitate access to safe clandestine abortions under restrictive abortion laws.[25] In addition, according to a study in Ghana, younger and poorer women, as well as those who lack partner support, tended to be the most susceptible to unsafe abortion.[26] Similarly, Henshaw et al. found that among women admitted to Nigerian hospitals for abortion-related reasons, those who came in with complications of an induced abortion were more likely than those who came in to obtain an induced abortion to be poor and to have a pregnancy of a later gestational age.[27]

One of the factors associated with the severity of abortion complications was whether the abortion was reported as having been induced: Women who reported having had an induced abortion were more likely than those who reported having had a spontaneous abortion to experience severe or moderate complications rather than mild or no complications. Although induced abortion is a safe procedure[28] if done by a trained professional and in a conducive environment (i.e., one equipped with the minimal medical standards),[23] it can be severely unsafe if these conditions are not adhered to, as is often the case in countries with restrictive abortion laws.[2] Where abortions are performed clandestinely, women—especially those who are disadvantaged, such as adolescents and the poor—may have difficulty obtaining a safe

procedure. Furthermore, we found that women who were not married were more likely than married women to have had an induced abortion. Given that women who are not married usually are more susceptible to stigma about sex and nonmarital childbearing, especially in traditional and conservative societies,[29] most of their abortions were likely obtained clandestinely and had a high risk of complication. Thus, poor and unmarried women need more support to help them avoid unintended pregnancy and unsafe abortion.

Limitations

This study has some limitations. Although our sample came from a prospective survey of women admitted at facilities for postabortion complications over a one-month period, we were not able to interview all postabortion patients who presented during that time. Interviewers kept a record of women who were missed, and while the number was not large enough to significantly bias our findings, the fact that we did not capture all women is a limitation. In addition, given that our sample consisted of women who attended health facilities, it is not representative of all women who experience abortion complications. For various reasons (e.g., cost of care, distance to care, stigma), women who experience abortion complications may not seek care in a health facility. Although women in our sample may have been more educated and wealthier than women who did not seek treatment in a health facility, it is unknown whether the two groups differ by the severity of their complications.

Furthermore, the sample included women treated for complications of spontaneous abortion, who would typically be different from their counterparts who had an induced abortion.[27] Although we applied a reliable and widely used indirect method to estimate the proportion of women in our sample who had had a spontaneous abortion and to account for that in the analyses, it is possible that we misclassified some women. Finally, in a context with restrictive abortion laws, women admitted in health facilities for postabortion complications may not disclose that they had had an induced abortion. To the extent to which this occurs, it would bias the results; however, the indirect method we used to determine abortion type should help to minimize the potential underreporting in women's direct reports of induced abortions.

Conclusions

To reduce maternal morbidity and mortality in the DRC, the problem of unsafe abortion and its associated consequences must be addressed. First, efforts to increase access to and uptake of contraceptive services—including counseling on and provision of a range of family planning methods—must be intensified to prevent unsafe abortion. This effort must include not only making contraceptives accessible, but also public and provider sensitization through education, and training and counseling to encourage more uptake of contraceptives to reduce the high level of unmet need for contraception in Kinshasa (25% among married women).[8] Although postabortion care is legal, its provision can and should be improved. Currently, most of the burden of postabortion care rests on lower-level private facilities, and use of recommended methods is limited. These issues need to be revisited and addressed to enable women to obtain timely and quality post-abortion care services. Government facilities should be equipped with the capacity to provide high-quality postabortion care, so that access to the services can be more equitable. And as noted earlier, legal restriction does not

reduce abortion, but rather drives it underground and makes it unsafe. The current legal restriction on safe abortion should be reviewed with a view to making abortion safer.

RESUMEN

Contexto:

El aborto inseguro es común en Kinshasa, situación que contribuye a altas tasas de morbilidad y mortalidad materna. Poco se sabe sobre las complicaciones y el tratamiento que experimentan las mujeres que buscan servicios de atención postaborto en instituciones de salud de la ciudad.

Métodos:

Los datos de 867 mujeres admitidas en una muestra de centros de salud que ofrecían atención postaborto en Kinshasa en 2016 se obtuvieron de una Encuesta Prospectiva de Morbilidad. Se desarrolló una medida de la gravedad de las complicaciones postaborto con base en la información de estas mujeres y de sus proveedores de atención primaria. Se utilizaron análisis de regresión logística ordenados generalizados para examinar las asociaciones entre las características de las pacientes de atención postaborto y la gravedad de la complicación.

Resultados:

Casi tres cuartas partes (72%) de las pacientes de atención postaborto se clasificaron con certeza de haber tenido un aborto inducido, y otro 16% con la probabilidad de haber tenido uno. Dieciséis por ciento de las pacientes con atención postaborto experimentaron complicaciones graves, 46% complicaciones moderadas y 33% complicaciones leves; 5% no tuvo evidencia de complicaciones. La gravedad de las complicaciones se asoció con ciertas características de las pacientes: por ejemplo, las pacientes que vivían en condiciones de pobreza y las que nunca se habían casado tuvieron altas probabilidades de haber experimentado complicaciones graves o moderadas en lugar de complicaciones leves o nulas (razón de probabilidades, 1.8–1.9). Las complicaciones de las pacientes se trataron con mayor frecuencia con métodos anticuados como la dilatación y el legrado y el legrado digital (49% y 23%, respectivamente); solo el 11% de las pacientes recibió medicación para el dolor.

Conclusiones:

En Kinshasa se necesitan políticas y programas que promuevan el uso de anticonceptivos y el aborto legal seguro para reducir la cantidad mujeres que recurren al aborto inseguro. También se necesita una mejor prestación de atención postaborto de calidad, incluidos los métodos recomendados por la Organización Mundial de la Salud.

RÉSUMÉ

Contexte:

L’avortement non médicalisé est courant à Kinshasa, où il contribue à des taux élevés de morbidité et de mortalité maternelles. Les complications vécues et le traitement reçu par les

femmes qui cherchent à se faire soigner après un avortement dans les établissements de santé de la ville ne sont guère documentés.

Méthodes:

Les données relatives à 867 femmes admises dans un échantillon d'établissements de santé offrant des soins après avortement à Kinshasa en 2016 ont été extraites d'une enquête prospective de morbidité. Une mesure de gravité des complications après avortement a été élaborée sur la base de l'information obtenue auprès de ces femmes et de leur principal prestataire de soins. Les associations entre les caractéristiques des patientes ayant reçu des soins après avortement et la gravité des complications ont été examinées par analyses de régression logistique ordonnées généralisées.

Résultats:

Près de trois quarts (72%) des patientes ont été classées comme ayant certainement subi un avortement provoqué et 16% de plus en avaient probablement subi un. Seize pour cent des patientes soignées après avortement avaient eu des complications graves, 46% des complications de gravité moyenne et 33% de légères complications; 5% ne présentaient aucun signe de complications. La gravité des complications était associée à certaines caractéristiques des patientes. Par exemple, les patientes pauvres et celles qui n'avaient jamais été mariées avaient plus probablement eu des complications graves ou moyennement graves que légères ou nulles (RC, 1,8–1,9). Les complications des patientes avaient été le plus souvent traitées selon des méthodes dépassées, comme la dilatation et le curetage et le curetage digital (49% et 23%, respectivement); 11% seulement avaient reçu un traitement médicamenteux contre la douleur.

Conclusions:

Des politiques et des programmes de promotion de la pratique contraceptive et de l'avortement légal sans risques sont nécessaires à Kinshasa pour réduire le recours des femmes à l'avortement non médicalisé. La prestation de soins après avortement de meilleure qualité est également requise, dont les méthodes recommandées par l'Organisation mondiale de la Santé.

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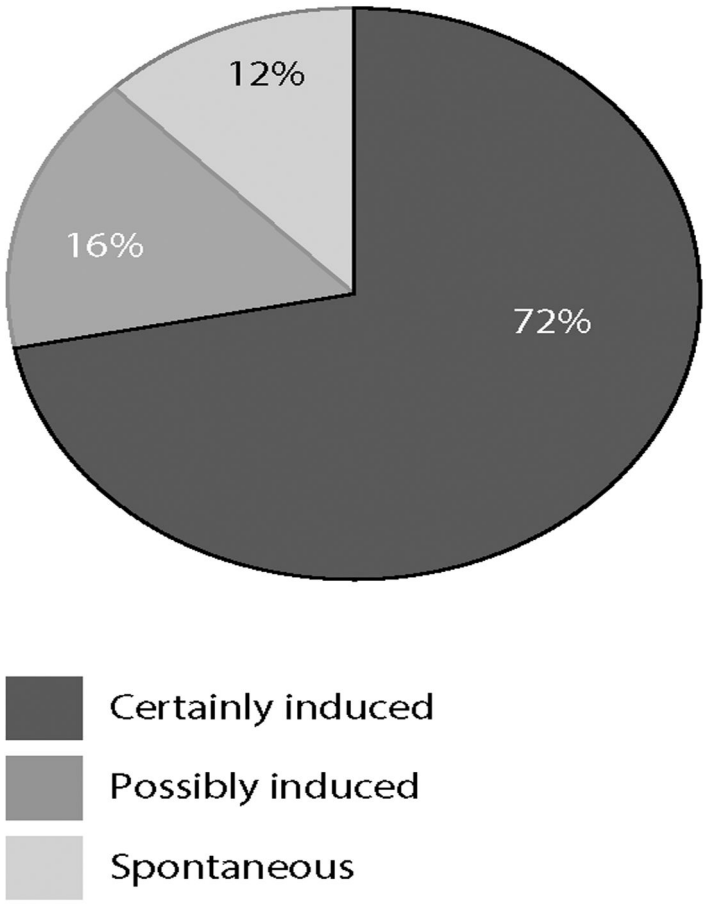

FIGURE 1.
Percentage distribution of postabortion care patients at Kinshasa health facilities, by abortion category, 2016

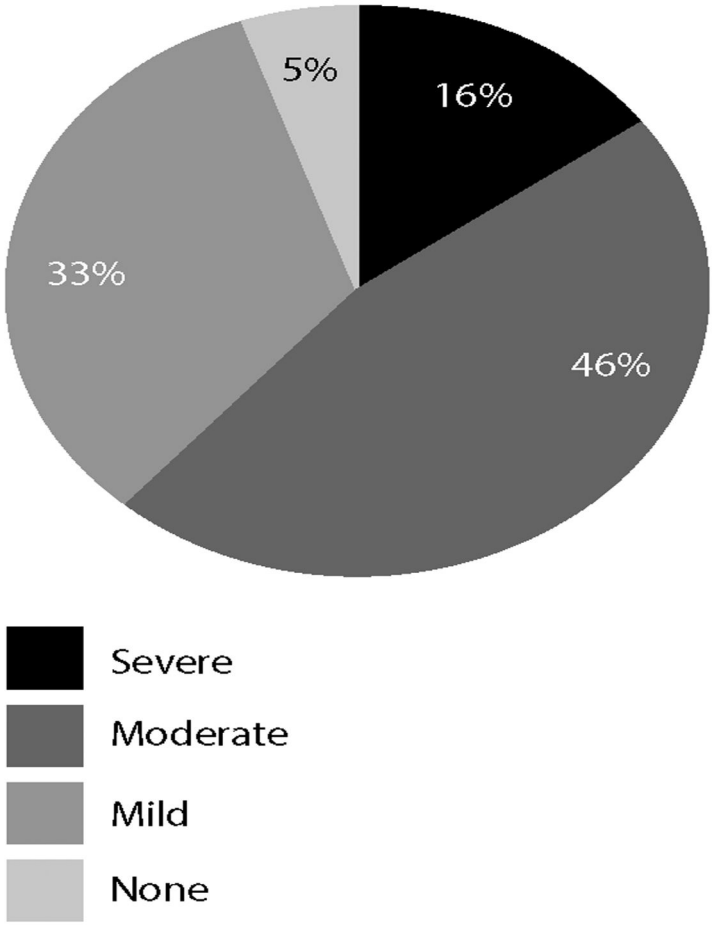

FIGURE 2.
Percentage distribution of postabortion care patients, by severity of complications

TABLE 1.

Criteria for classification of postabortion care patients

Certainly had an induced abortion (at least one of the following)
Patient reported having done something to cause the abortion
Provider reported suspecting that patient did something to cause the abortion
Provider reported evidence of trauma or foreign body in patient's genital tract
Probably had an induced abortion (both of the following)
Provider reported evidence of sepsis/peritonitis
Patient reported that pregnancy was unplanned†
Possibly had an induced abortion (one of the following)
Provider reported evidence of sepsis/peritonitis
Patient reported that pregnancy was unplanned†
Likely had a spontaneous abortion
Remaining postabortion care patients

†Patient reported not using a contraceptive method at the time of conception, or that she did not want the pregnancy at the time or at all.

TABLE 2.

Medical criteria for classification of abortion-related morbidity

Signs of abortion, but no morbidity (requires all of the following)
Woman reported using misoprostol
No symptoms/signs of morbidity[†]
Temperature ≥35.1 °C but ≤38.9°C with no clinical signs of infection[‡]
Admitted for <24 hours and discharged in good health
Mild morbidity (requires all of the following)
Woman used misoprostol and was hospitalized for ≥24 hours or woman did not use misoprostol
Temperature ≥35.1 °C but ≤38.9°C with no clinical signs of infection[‡]
Hemorrhage not requiring blood transfusion
Moderate morbidity (requires ≥1 of the following)
Temperature 37.3–38.9°C with clinical signs of infection[‡]
Clinical signs of infection alone[‡]
No sign of shock[§]
No organ or system failure[††]
Hemorrhage not requiring blood transfusion
Severe morbidity (requires ≥1 of the following)
Death
Shock[§]
Organ/system failure[††]
Temperature ≥39°C or <35°C (hypothermia) with clinical signs of infection[‡]
Generalized peritonitis
Hemorrhage requiring blood transfusion

[†]No clinically significant bleeding (i.e., clinical intervention not required) or signs of infection.

[‡]Can include temperature ≥37.3°C and abdominal/uterine tenderness with or without foul smelling vaginal discharge, pelvic abscess or pelvic peritonitis.

[§]Can manifest as a persistent systolic blood pressure ≤80 mmHg alone or a persistent systolic blood pressure ≤90 mmHg with a pulse rate at least 120 bpm, and restlessness, reduced consciousness, cold clammy peripheries, requiring administration of IV fluids.

[††]Can include liver failure, renal failure, cardiac arrest or failure, respiratory distress syndrome, coma or disseminated intravascular coagulopathy.

TABLE 3.

Percentage distribution of postabortion care patients in Kinshasa health facilities, by selected characteristics; and odds ratios (and 95% confidence intervals) from logistic regression analyses assessing the likelihood that patients had had an induced abortion, by selected characteristics, according to abortion type

Characteristic	% (N=867)	Odds ratio‡	
		Possibly/certainly induced vs. spontaneous	Certainly induced vs. possibly induced and spontaneous
Age			
15–19	15.7	1.42(0.71–2.84)	na
20–24	22.9	1.19(0.52–2.71)	2.13(1.08–4.19) *
25–29	26.7	1.09(0.57–2.07)	na
30–34	17.3	1.07(0.57–2.03)	na
35–49 (ref)	17.4	1.00	1.00
Marital status			
Not married§	59.5	13.59(6.50–28.41) **	3.45(2.13–5.59) **
Married (ref)	40.5	1.00	1.00
Education			
≤primary	13.2	1.11(0.45–2.74)	na
Incomplete secondary	35.7	1.74(0.79–3.85)	na
Completed secondary	35.5	1.50(0.82–2.76)	na
Tertiary (ref)	15.7	1.00	na
Poverty status			
Poor	40.4	1.42(0.93–2.15) †	na
Nonpoor (ref)	59.6	1.00	na
Previous abortion			
0(ref)	72.9	1.00	na
≥1	27.1	2.05(1.12–3.74) *	na
Gestational age at time pregnancy ended			
First trimester (ref)	80.9	1.00	na
After the first trimester ††	19.1	0.75(0.44–1.27)	na
Total	100.0	na	na

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*Significant at p<.05.

**Significant at p<.01.

†Significant at p<.10.

‡Results from a partial proportional odds model using gologit2 in Stata; variables with only one set of odds ratios meet the proportional odds assumption.

§Includes those who reported being never-married (38%), living together with a man (18%) and separated/divorced (4%).

††Includes five cases with reported pregnancy termination in the third trimester.

Notes: na=not applicable. ref=reference category. Percentages were calculated with weights.

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TABLE 4.

Odds ratios (and 95% confidence intervals) from logistic regression analyses assessing the likelihood that postabortion care patients experienced complications, by selected characteristics, according to severity of abortion-related morbidity

Characteristic	Odds ratio†	
	Moderate/severe vs. none/mild	Severe vs. none/mild/moderate
Age		
15–19	0.68(0.41–1.12)	na
20–24	0.51 (0.30–0.86) *	na
25–29	0.67(0.37–1.15)	0.29(0.15–0.56) **
30–34	0.62(0.34–1.14)	na
35–49 (ref)	1.00	1.00
Marital status		
Single	1.84(1.12–3.03) *	na
Married (ref)	1.00	na
Living together with a man	1.87(1.14–3.08) **	na
Separated/divorced	0.96(0.41–2.22)	na
Education		
≤primary	1.75(0.82–3.71)	na
Incomplete secondary	1.11(0.57–2.18)	na
Completed secondary	1.38(0.75–2.54)	na
Tertiary (ref)	1.00	na
Poverty status		
Poor	1.90(1.24–2.90) **	na
Nonpoor (ref)	1.00	na
Previous abortion		
O(ref)	1.00	1.00
≥1	1.28(0.87–1.87)	0.56(0.32–0.95) *
Gestational age at time pregnancy ended		
First trimester (ref)	1.00	1.00
After the first trimester‡	1.06(0.66–1.70)	3.66(2.26–5.93) *
Reported inducing the abortion		
Yes	1.73(1.05–2.84) *	na
No (ref)	1.00	na

* Significant at p<.05.

** Significant at p<.01.

† Results from a partial proportional odds model using gologit2 in Stata; variables with only one set of odds ratios meet the proportional odds assumption.

‡ Includes five cases with reported pregnancy termination in the third trimester.

Notes: na=not applicable. ref=reference category. See Table 2 for classification of abortion-related morbidity.

TABLE 5.

Percentage distribution of postabortion care patients, by measures of clinical management and treatment, according to severity of abortion-related morbidity

Measures	All (N=867)	None/mild (N=349)	Moderate (N=351)	Severe (N=167)
Method of evacuation †				
Dilation and curettage	49.2	45.3	51.6	51.6
Manual/electric vacuum aspiration	13.9	17.2	11.8	11.7
Misoprostol	10.2	9.6	10.2	11.7
Digital curettage	22.8	24.9	23.0	17.2
Forceps evacuation	0.5	0.1	0.0	3.1
Others	3.5	2.9	3.5	4.8
Provider type *				
Physician	54.2	54.3	49.6	67.4
Midlevel provider	45.9	45.7	50.4	32.6
Patient received medication for pain				
Yes	10.9	8.9	11.3	14.5
No/no response	65.9	65.7	65.1	68.4
Not needed‡	23.3	25.5	23.6	17.1
Gestational age at time pregnancy ended **				
First trimester	80.9	81.2	87.1	61.8
Second trimester	18.7	18.2	12.5	38.0
Third trimester	0.4	0.6	0.4	0.2
Time patient spent in facility **				
<24 hours	58.6	73.2	57.6	25.9
≥24 hours	41.4	26.8	42.4	74.1
Induced abortion suspected by provider *				
Yes	52.0	41.1	58.2	60.3
No	44.9	54.6	39.1	37.9
Don’t know	3.2	4.3	2.7	1.9
Patient reported inducing the abortion *				
Yes	41.6	33.3	47.2	45.3
No	58.4	66.7	52.8	54.7
Patient received a contraceptive method				
Yes	15.0	12.8	15.8	20.3
No	84.5	86.6	83.5	79.7
Don’t know	0.5	0.6	0.7	0.0
Total	100.0	100.0	100.0	100.0

*Significant at p<.05.

**Significant at p<.01.

†Significant at p<.10.

[≠] Used misoprostol for treatment.

Notes: na=not applicable. Asterisks were based on the p-value of the Pearson chi-square test of association between severity and type of service received and characteristics of abortion. See Table 2 for classification of abortion-related morbidity.