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CLINICAL ARTICLE

Critical care providers' opinion on unsafe abortion in Argentina

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ABSTRACT

Objective: To survey the opinion of critical care providers in Argentina about abortion. *Methods:* An anonymous questionnaire was distributed to critical care providers attending the 20th National Critical Care Conference in Argentina. *Results:* 149 of 1800 attendees completed the questionnaire, 69 (46.3%) of whom were members of the Argentine Society of Critical Care (ASCC). 122 (81.9%) supported abortion decriminalization in situations excluded from the current law; 142 (95.3%) in cases of congenital defects; 133 (89.3%) in cases of rape; 115 (77.2%) when women's mental health is at risk; 71 (47.7%) when pregnancy is unintended; and 61 (40.9%) for economic reasons. 126 (84.6%) supported abortion in public and private institutions, and 121 (81.2%) before 12 weeks of pregnancy. Variables independently associated with abortion support among female versus male attendees were abortion to preserve women's mental health (OR 4.47; 95% CI, 1.61–12.42; $P=0.004$) and abortion before 12 weeks of pregnancy (OR 3.93; 95% CI, 1.29–11.94; $P=0.015$). Abortion at request was independently associated with ASCC membership (OR 2.63; 95% CI, 1.07–6.45; $P=0.034$). *Conclusion:* Critical care providers would support abortion in situations excluded from the current abortion law and before 12 weeks of pregnancy, in both public and private hospitals.

1. Introduction

Worldwide, maternal mortality is approximately 350 000 deaths per year [1], with the vast majority occurring in low-income countries [2]. Although global maternal mortality has decreased by 30% in the past 30 years [1], it has remained at approximately 50 deaths per 100 000 live births in Argentina since 1990 [3,4].

Unsafe abortion, which occurs mainly in countries with restrictive abortion laws, still accounts for 13% of maternal deaths worldwide [5–9]. In Argentina, unsafe abortion is the main cause of maternal mortality [10] and a common reason for admission to the intensive care unit [4,11,12].

Abortion legalization in countries with previously banned abortion practice has resulted in a substantial decrease in maternal mortality [13,14]. However, in the highly restrictive context of Argentina, induced abortion is legal only when performed to preserve a woman's life or her physical health, when risk cannot be avoided with any other method, and when pregnancy is the consequence of rape of a mentally handicapped or insane woman.

Some local surveys have shown that Argentine society as a whole [15,16] and part of the medical community (obstetricians and gynecologists) [17] support the decriminalization of abortion under circumstances not considered legal under the current law. Although critical care providers are exposed to the most severe consequences of illegal abortion, there has been almost no research to date in Argentina about their opinion on this topic. Thus, the aim of the present study was to survey the opinions of critical care providers regarding abortion.

2. Materials and methods

The present investigation was a descriptive, analytical, quantitative study using a structured, closed-ended, anonymous, self-administered survey questionnaire. It was conducted at the 20th National Critical Care Conference in Mar del Plata, Buenos Aires, Argentina, between September 30 and October 3, 2010. The conference is the only one in Argentina aimed specifically at critical care physicians, physiotherapists, and critical care nurses from all over the country.

A purposive sample was used. All conference attendees received the survey in their conference bag and were asked to complete it voluntarily. Completed questionnaires were returned to the Argentine Society of Critical Care (ASCC) booth. The anonymity of each respondent was preserved.

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The following characteristics were recorded: age; gender; ASCC membership status (yes/no); and profession (physician, physiotherapist, nurse, other). Members of the ASCC were assigned to different categories, according to the following criteria: having been a graduate for at least 2 years; and having worked fully dedicated to critical care for at least 2 years.

The survey was structured, with questions taken from 2 other surveys used in Argentina—one in a general population [16] and the other among obstetricians and gynecologists [17].

The χ^2 test or Fisher exact test was used to compare categoric variables. Multiple comparisons of categoric variables were performed using multiple χ^2 tests, with Bonferroni correction. A 2-sided P value of less than 0.05 was considered to be statistically significant. Statistical analysis was performed using STATA 9.0 (StataCorp, College Station, TX, USA).

An associative multiple logistic regression analysis was performed with ASCC membership as the dependent variable. Predetermined variables, or those significantly associated with ASCC membership in univariate analysis ($P<0.2$), were tested. Odds ratios (ORs) of ASCC members (plus 95% confidence intervals [CIs]) were calculated. A receiver operating characteristic (ROC) curve was drawn with the final model, and the area under the curve was estimated. Calibration of the logistic model was assessed using the Hosmer–Lemeshow goodness-of-fit test to evaluate the importance of the discrepancy between observed and expected ASCC membership. A P value greater than 0.05 indicated a good agreement between observed and predicted ASCC membership. Discrimination was assessed using the area under the ROC curve to evaluate how well the model distinguished between ASCC members and non-members. Associative multiple logistic regression analysis was also performed with gender as the dependent variable.

3. Results

In total, 1872 people attended the 20th National Critical Care Conference, 149 of whom voluntarily completed and returned the questionnaire (Table 1). The mean age of the attendees who completed the survey was 42 ± 10 years; 89 (59.7%) were women; 69 (46.3%) were ASCC members; 98 (65.8%) were physicians; 24 (16.1%) were nurses; 22 (14.8%) were physiotherapists; and 5 (3.4%) were of another profession. Of the target population of 1872 attendees, 866 (46.3%) were ASCC members, 1206 (64.4%) were physicians, 450 (24.0%) were nurses, and 112 (6.0%) were physiotherapists.

The mean age of ASCC members was 45 ± 10 years, compared with 38 ± 10 years among non-members ($P<0.001$). Of the ASCC members, 33 (47.8%) were women and 36 (52.2%) were men ($P=0.005$). Profession distribution according to gender and ASCC membership is shown in Table 2. Responses regarding abortion according to gender and ASCC membership are displayed in Table 3.

Table 1
Attendees' responses regarding abortion.[a]

Question	Response	
	Yes	No response
1. Should abortion be decriminalized in situations excluded from the current abortion law?	122 (81.9)	2 (1.3)
2. Situations in which people would support abortion under a new law		
Pregnancy resulting from rape in any woman, at any age	133 (89.3)	3 (2.0)
Risk to the woman's mental health	115 (77.2)	5 (3.4)
Congenital defects	142 (95.3)	1 (0.7)
Lack of economic resources	61 (40.9)	9 (6.0)
Unintended pregnancy, whatever the cause	71 (47.7)	6 (4.0)
3. Time frame for abortion		
Before 12 weeks of pregnancy	121 (81.2)	12 (8.1)
Before 24 weeks of pregnancy	18 (12.1)	12 (8.1)
4. Should abortion be performed in public and private institutions?	126 (84.6)	10 (6.7)

[a] Values are given as number (percentage).

Table 2
Profession of participants, according to gender and ASCC membership.[a]

Profession	Gender (n = 146)		ASCC membership (n = 144)	
	Female	Male	Yes	No
Physician	55 (61.8)	42 (73.7)	58 (84.1)	39 (52.0)[c,d]
Nurse	20 (22.5)	3 (5.3)[b]	4 (5.8)	17 (22.7)
Physiotherapist	12 (13.5)	9 (15.8)	6 (8.7)	15 (20.0)
Other	2 (2.2)	3 (5.3)	1 (1.4)	4 (5.3)
Total [e]	89 (100.0)	57 (100.0)	69 (100.0)	75 (100.0)

Abbreviation: ASCC, Argentine Society of Critical Care.
[a] Values are given as number (percentage).
[b] $P=0.03$ (nurses vs physicians).
[c] $P=0.001$ (physicians vs nurses).
[d] $P=0.055$ (physicians vs physiotherapists).

In a multiple logistic regression analysis, support for abortion to preserve women's mental health (OR 4.47; 95% CI, 1.61–12.42; $P=0.004$) and support for abortion before 12 weeks of pregnancy (OR 3.93; 95% CI, 1.29–11.94; $P=0.015$) were independently associated with being a woman.

Twenty-five (16.8%) study participants did not support decriminalization of abortion under circumstances excluded from the current Argentine legislation, 13 (52.0%) of whom were women and 15 (60.0%) of whom were not ASCC members. The mean age of these respondents was 40.6 ± 9.0 years; 17 (68.0%) were physicians; 5 (20.0%) were nurses; and 3 (12.0%) were physiotherapists. Most of them were also against abortion in specific situations: to protect the mother's mental health (17/24 [70.8%]); for economic reasons (23/24 [95.8%]); and for unintended pregnancy, whatever the cause (23/24 [95.8%]). However, even within this group, 15 (60.0%) supported abortion decriminalization in cases of rape and 21 (84.0%) supported decriminalization in cases of congenital malformation.

Variables associated with ASCC membership in univariate and multivariate analyses are shown in Tables 4 and 5. In univariate analysis, abortion owing to lack of economic resources; abortion for unintended pregnancy, whatever the cause; and abortion after 12 weeks were associated with ASCC membership. In multivariate analysis, only abortion for unintended pregnancy, whatever the cause, and abortion after 12 weeks remained significantly associated with ASSC membership.

4. Discussion

In the present study, the majority of critical care physicians supported abortion decriminalization in situations excluded from the current Argentine abortion law; there were higher levels of support for cases of abortion because of congenital defects, rape, and risk to women's mental health than for economic reasons or for unintended pregnancy, whatever the cause. There was also general support for abortion before 12 weeks of pregnancy. Most participants supported abortion provision in both public and private hospitals.

Overall, the responses in the present study were consistent with those from a survey of Argentine obstetricians and gynecologists [17], a public opinion survey about abortion in Argentina [16], and a population-based survey in Mexico [18]. Similarly, in an Argentine population survey about religious beliefs and attitudes, 64% of respondents supported abortion in certain situations such as rape, risk to the woman's life, or congenital malformation [15].

The level of acceptance of abortion seems to be higher among physicians than among the general population in Argentina. In the previously mentioned public opinion survey, 62% of respondents supported abortion decriminalization [16], compared with 81.9% of

Table 3
Affirmative responses regarding abortion, according to gender and ASCC membership.[a]

Question	Gender[b]		*P* value	ASCC membership[b]		*P* value
	Female (n = 89)	Male (n = 57)		Yes (n = 69)	No (n = 75)	
1. Should abortion be decriminalized in situations excluded from the current abortion law?	75/88 (85.2)	45/57 (78.9)	0.32	58/68 (85.3)	60/75 (80.0)	0.40
2. Situations in which people would support abortion under a new law						
Pregnancy resulting from rape in any woman, at any age	79 /86 (91.9)	51/57 (89.5)	0.62	64/67 (95.5)	65/75 (86.7)	0.08
Risk to the woman's mental health	74/86 (86.0)	38/55 (69.1)	0.015	52/66 (78.8)	59/74 (79.7)	0.89
Congenital defects	83/88 (94.3)	56/57 (98.2)	0.40	67/68 (98.5)	71/75 (94.7)	0.37
Lack of economic resources	38/84 (45.2)	23/53 (43.4)	0.83	35/65 (53.8)	25/71 (35.2)	0.029
Unintended pregnancy, whatever the cause	42/86 (48.8)	28/54 (51.8)	0.72	41/65 (63.1)	28/74 (37.8)	0.003
3. Time frame for abortion						
Before 12 weeks of pregnancy	78/84 (92.8)	40/50 (80.0)	0.026	49/62 (79.0)	67/70 (95.7)	0.006
Before 24 weeks of pregnancy	7/84 (8.3)	11/50 (22.0)	0.025	14/62 (22.6)	4/70 (5.7)	0.005
4. Should abortion be performed in public and private institutions?	77/84 (91.7)	46/52 (88.5)	0.53	59/63 (93.6)	62/71 (87.3)	0.25

Abbreviation: ASCC, Argentine Society of Critical Care.
[a] Values are given as number (percentage) unless otherwise indicated.
[b] From the total number of 149 people who answered the survey, 146 stated their gender and 144 their ASCC membership status. Moreover, some responses are missing from both groups.

participating critical care providers in the present study. Healthcare providers exposed to maternal mortality or severe morbidity secondary to unsafe abortion might be more prone to accepting abortion decriminalization; proximity to the problem makes it easier to understand it fully and to sympathize [19].

There were no differences between men's and women's support of abortion, except with regard to abortion to preserve women's mental health and abortion before 12 weeks of pregnancy. The discrepancy regarding mental health may be related to a sympathetic attitude among women, and that regarding abortion before 12 weeks may be explained by a higher perception among women of the risk associated with abortion in more advanced pregnancies.

Unlike the present study, a population-based survey in Mexico [18] recorded more support for abortion among women than among men in cases of danger to a woman's life; rape; lack of economic resources; congenital, mental, or physical defects; and developmental disability among women. In a survey of Argentine obstetricians and gynecologists [17], there was a higher level of support among women than among men for abortion related to economic reasons (41% vs 29%; $P = 0.009$). By contrast, there was no such difference in the present study, with approximately 45% of women and men considering abortion to be appropriate under these circumstances. The difference between the obstetrician/gynecologist study and the present study (among critical care physicians) seems to be in men's opinion. In the former, only 29% of male obstetricians agreed with abortion owing to lack of economic resources, compared with 43.4% of male intensive-care providers in the latter. Male critical-care providers are closely exposed to death or severe morbidity associated with unsafe abortion, which might increase their sympathy toward affected women and make them abandon any gender, cultural, or religious prejudice against women requiring an abortion, whatever the cause.

In general, the level of support for abortion decriminalization was similar between participating ASCC members and non-members. Nevertheless, ASCC members were significantly more inclined than non-members to support abortion for economic reasons. Moreover, supporting abortion for unintended pregnancy, whatever the cause, was independently associated with being an ASCC member. Finally, significantly more ASCC members than non-members supported abortion being performed up to the 24th week of pregnancy. The proportion of physicians among ASCC members was higher than among non-members, where physiotherapists and nurses accounted for approximately 45%. Physicians might be more aware than other healthcare professionals of the risks and complications of unsafe abortion, as indicated by a study in Africa [20].

The main limitations of the present study were sample and reporting bias. Less than 10% of the target population completed the survey. However, the proportions of physicians and ASCC members in the study sample were similar to those in the overall target population, so physician and ASCC member responses may have been well represented. The proportions of nurses and physiotherapists varied between the study and the target populations, so the conclusions might not apply to them. There was a possible reporting bias because completion of the survey was voluntary. Nevertheless, we hypothesized that attendees who were against abortion law liberalization and those who were in favor would have completed the survey in order to express their opinion.

Maternal mortality is still very high in Argentina, and unsafe abortion is its main cause. Parliament is currently discussing a new liberalized law on abortion, so the present study could contribute to this important debate and help to save more women's lives.

Table 4
Univariate analysis of variables associated with ASCC membership.

Variable	Odds ratio (95% confidence interval)	*P* value
Abortion in cases of rape	3.28 (0.86–12.48)	0.081
Abortion to preserve women's mental health	0.94 (0.42–2.14)	0.89
Abortion owing to congenital malformation	3.77 (0.41–34.63)	0.24
Abortion owing to lack of economic resources	2.15 (1.08–4.28)	0.03
Abortion owing to unintended pregnancy, whatever the cause	2.81 (1.41–5.59)	0.003
Abortion after 12 weeks of pregnancy	5.92 (1.60–21.92)	0.008
Abortion in public and private institutions	2.14 (0.62–7.33)	0.22
Male	2.75 (1.38–5.50)	0.004
Physician	4.87 (2.21–10.70)	<0.001
Attendee >35 years of age	3.73 (1.72–8.07)	0.001

Abbreviation: ASCC, Argentine Society of Critical Care.

Table 5
Multiple logistic regression analysis of variables independently associated with ASCC membership.

Variable	Odds ratio (95% confidence interval)	*P* value
Abortion owing to unintended pregnancy, whatever the cause	2.63 (1.07–6.45)	0.034
Abortion after 12 weeks of pregnancy	6.16 (1.27–29.95)	0.024
Male	2.87 (1.16–7.05)	0.022
Physician	3.99 (1.41–11.35)	0.009
Attendee >35 years of age	4.19 (1.51–11.64)	0.006

Abbreviation: ASCC, Argentine Society of Critical Care.

Conflict of interest

The authors have no conflicts of interest.

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