Clinic Versus Over-the-Counter Access to Oral Contraception: Choices Women Make Along the US–Mexico Border

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Objectives. As part of the Border Contraceptive Access Study, we interviewed oral contraceptive (OC) users living in El Paso, Texas, to assess motivations for patronizing a US clinic or a Mexican pharmacy with over-the-counter (OTC) pills and to determine which women were likely to use the OTC option.

Methods. We surveyed 532 clinic users and 514 pharmacy users about background characteristics, motivations for choosing their OC source, and satisfaction with this source.

Results. Older women and women born and educated in Mexico were more likely to patronize pharmacies. Cost of pills was the main motivation for choosing their source for 40% of pharmacy users and 23% of clinic users. The main advantage cited by 49% of clinic users was availability of other health services. Bypassing the requirement to obtain a doctor's prescription was most important for 27% of pharmacy users. Both groups were very satisfied with their pill source.

Conclusions. Women of different ages, parities, and educational levels would likely take advantage of an OTC option were OCs available at low cost. Improving clinic provision of OCs should be considered. (*Am J Public Health.* 2010;100: 1130–1136. doi:10.2105/AJPH.2009.179887)

Sixteen years ago, some distinguished reproductive health scholars outlined the arguments for reducing or eliminating the medical requirements for accessing oral contraception in the United States.[1] The argument was simply that only compelling health concerns could justify restrictions such as the prescription requirement and that evidence was mounting that neither safety nor efficacy concerns justified prescription status for oral contraception. In the intervening years, much has changed. More evidence has accumulated regarding the safety of oral contraception,[2–6] successful experiments have been conducted regarding ways to facilitate use of prescription pills,[7,8] and the Food and Drug Administration took an important related policy step when it approved an over-the-counter (OTC) emergency contraception product for adult women. For these reasons, as well as the high prevalence of unwanted pregnancies—especially among adolescents and women with low income and education[9,10]—the issue of removing the prescription requirement has again come to the fore.[11,12] Comparing the effectiveness of OTC access to oral contraceptives (OCs) or other hormonal methods with other innovative strategies for reducing unintended pregnancies is ranked in the top quartile of initial national priorities in the Institute of Medicine's report on comparative effectiveness research.[13]

In the debate over removing the prescription requirement, 2 of the questions that need to be addressed are why women might prefer pharmacy access instead of obtaining pills at clinics and who would take advantage of the pharmacy option if it were made available. So far, most of the evidence on these points has come from studies of women residing in countries other than the United States[14] or from answers to hypothetical questions addressed to women in this country.[15] To explore these questions, we conducted a study along the US–Mexico border,[16] where women who live in the United States are afforded an unusual opportunity: crossing the border, they can purchase OTC hormonal contraception at pharmacies for a reasonable price—approximately US$5 per cycle. In the Border Contraceptive Access Study, we set out to compare the motivations and experiences of OC users who obtained their contraception from Mexican pharmacies with those of women who obtained their pills from family planning clinics in El Paso, Texas, where eligible low-income women often pay nothing. We addressed questions of why women chose one source over the other and what underlying factors played a role in their choice.

METHODS

The combined population of El Paso, Texas, and Ciudad Juárez, Chihuahua, Mexico, is approximately 2.4 million; the population of the El Paso metropolitan area is approximately 800 000 and is roughly 80% Hispanic and Latino. El Paso is among the poorest communities in the United States. According to the 2004 American Community Survey,[17] El Paso's median household income of $31 764 ranked 61st among the 70 cities with populations greater than 250 000. The border is quite porous; 4 bridges link the 2 cities, and thousands cross frequently in both directions for commerce, family visits, recreation, education, and health and other services. Previous studies[16,18,19] have established that health services in Mexico are an important resource for many residents in El Paso and other Texas border cities for reasons such as lower cost, convenience, family networks, cultural comfort, and perceived quality of care. In a postpartum survey carried out in the late 1990s, Potter et al.[20] found that many lower-income mothers in El Paso obtained OTC hormonal contraceptives in Mexican pharmacies. The findings from these previous studies drove our choice of El Paso as our research site, because it provided us with a natural experiment of

clinic versus OTC access to hormonal contraception.

Participants

We recruited 1046 El Paso resident OC users aged 18 to 44 years from December 2006 through February 2008. Of these participants, 532 women had obtained their most recent pill pack at a family planning clinic in El Paso, and 514 women had obtained their last pill pack from a pharmacy in Ciudad Juárez. Some clinic users were recruited from the major family planning providers in El Paso. However, recruiting pharmacy users at pharmacies in Ciudad Juárez proved to be impractical, so we recruited virtually the entire pharmacy user sample and a considerable proportion of the clinic sample through announcements, flyers, presentations at local community centers, and referrals. Participants resided in 46 different zip codes, 16 of which had more than 20 participants. The sample was not stratified by level of education or socioeconomic status; nevertheless, it did not typically include women who used health insurance or personal funds to obtain prescriptions from private physicians in the United States, then purchased OCs at pharmacies in Mexico.

After obtaining signed informed consent from participants who agreed to take part in the study, we administered a one-hour face-to-face baseline interview (we conducted 3 further interviews with these respondents, but only data from the baseline interview are analyzed here). Bilingual project staff conducted interviews in either Spanish or English in the respondent's home or a place of her choosing. Participants were compensated with a $25 gift card for completing the interview.

Measures

The baseline questionnaire contained a wide range of items related to the participant's background, marital status, parity, health status, medical history, use of health services, knowledge about appropriate pill use, contraceptive history, and reproductive intentions. Special emphasis was given to a series of items intended to gauge the participant's ability to take advantage of Mexican pharmacies as a contraceptive source, such as her contacts and relationships in Mexico, her ability to speak Spanish, and the frequency with which she crossed the border. Specifically, we asked about the participant's country of birth, level of education, the country in which she completed her last year of schooling, location of her parents' birth, and which relatives whom she visited regularly lived in Ciudad Juárez. The questionnaire also included several items to measure whether the participant had access to, or made use of, health and welfare services in the United States: whether anyone in the household received various kinds of welfare or federal benefits (e.g., Women, Infants, and Children's Program; Temporary Assistance to Needy Families; food stamps) and whether the

TABLE 1—Characteristics of Study Participants, by Source of Oral Contraceptives: Border Contraceptive Access Study, El Paso, TX, 2006–2008

	US Clinic Users (n = 532), %	Mexican Pharmacy Users (n = 514), %	P[a]
Age, y			<.001
18–24	34	23	
25–34	44	41	
35–44	22	36	
No. of live births			.017
0	19	13	
1–2	45	46	
≥3	36	41	
Marital status			.002
Single	27	22	
Unmarried, living with partner	21	15	
Married	42	53	
Previously married	10	10	
Ethnicity			.87
Hispanic	98	98	
Other	2	2	
Education, y			.002
1–8	15	23	
9–11	29	28	
12	25	26	
>12	31	23	
Language ability			<.001
English better than Spanish	20	9	
No difference	30	21	
Spanish better than English	39	57	
Spanish only	11	13	
Born in Mexico	60	77	<.001
Last year of schooling in Mexico	28	43	<.001
Border crossing frequency			<.001
Never/almost never	51	29	
Less than once per month	16	11	
1–3 times per month	21	35	
Once per week or more	12	25	
Receives US government assistance	75	71	.083
Has US health insurance	24	11	<.001
Health insurance covers oral contraceptives	17	3	<.001

[a]By the χ^2 test.

TABLE 2—Adjusted Odds for Use of Mexican Pharmacy for Oral Contraceptives: Border Contraceptive Access Study, El Paso, TX, 2006–2008

	AOR (95% CI)	*P*
Age, y		
18–24 (Ref)	1.00	
25–34	1.17 (0.84, 1.63)	.343
35–44	1.52 (1.04, 2.22)	.03
Nativity/Education		
Born in United States, last year of school in United States (Ref)	1.00	
Born in Mexico, last year of school in United States	1.83 (1.29, 2.59)	.001
Born in Mexico, last year of school in Mexico	2.74 (1.86, 4.03)	<.001
Border crossing frequency		
Never/almost never (Ref)	1.00	
Less than once per month	1.54 (1.01, 2.36)	.045
1–3 times per month	3.33 (2.40, 4.63)	<.001
Once per week or more	4.41 (3.01, 6.47)	<.001
Has US health insurance	0.49 (0.33, 0.72)	<.001
Receives US government assistance	0.69 (0.50, 0.94)	.018

Note. AOR = adjusted odds ratio; CI = confidence interval.

participant had health insurance coverage, including Medicaid.

To assess the participant's motivation for choosing her most recent source of contraception, we generated a set of parallel questions for Mexican pharmacy users and for El Paso clinic users about the advantages and disadvantages of getting pills at their current source. We formulated these questions from common advantages and disadvantages associated with clinic-based services in the United States that have been reported in the literature.[21–24] We also included questions that we believed were relevant to the border context.[18] We asked both clinic and pharmacy users about whether they chose their source for reasons of cost, convenience, trust of services, and availability of preferred brands. We asked clinic users only about whether they liked the provision of other health services and the quantity of pill packs obtained at each visit. Pharmacy users could also choose among the following reasons for choosing their source: not needing to go to a clinic or doctor's office to get a prescription, not having a limitation on the number of packs that could be acquired in 1 trip, and being able to send a friend or relative to get pills. Both groups could also state other reasons for choosing their source or declare that they did not agree with any of the listed advantages. After they selected their reasons, we asked participants to choose which of the advantages listed was the most important.

The next question presented a list of several possible problems with getting pills at a participant's pill source and asked whether she considered any of them, or any other disadvantage, as a problem for her. We asked both groups whether cost or the amount of time involved in getting pills from their source was an issue. For clinic users, additional disadvantages were preferred brand not being available, dislike of the pelvic exam, and not being able to get enough pill packs. Disadvantages for pharmacy users were the unreliability of information about the pill available from pharmacists and the possibility of getting stopped with medications at US customs checkpoints. Next, we read the participant a list of possible problems associated with obtaining pills at what, for her, was the alternative source and asked whether she viewed any of these as problems. Our final question asked about the respondent's overall satisfaction with obtaining pills at her source.

Analysis

We computed frequency distributions and χ^2 statistics for women's social and demographic characteristics and motivations for and problems with obtaining pills at El Paso family planning clinics and Mexican pharmacies. To explore the factors associated with being a pharmacy or clinic user, we used logistic regression. We sought to obtain a parsimonious model relying on a reduced set of significant predictors drawn from the participant's social and demographic characteristics, as well as the indicators of her connections with Mexico (measured by a composite variable derived from nativity and the country in which the respondent completed her last year of schooling), border-crossing frequency, insurance status, and receipt of US government assistance.

RESULTS

The social and demographic characteristics for each group of users are shown in Table 1. Clinic users were younger than were pharmacy users, were somewhat more likely to be single, to have fewer children, and to have somewhat higher levels of education. Clinic users were also more likely to speak English more fluently than they did Spanish and to have been born in and completed their last year of schooling in the United States, but were less likely to be frequent border crossers. Finally, clinic users were slightly more likely than were pharmacy users to have received assistance from US government poverty programs such as Women, Infants, and Children's Program; Temporary Assistance to Needy Families; or food stamps. They were more likely than were pharmacy users to have US health insurance coverage, although coverage was extremely low for both groups, and typically the plans did not pay for OCs.

Table 2 presents the factors associated with the odds of using a Mexican pharmacy. Age was positively associated with obtaining pills from a pharmacy in Ciudad Juárez. Women who completed their education in Mexico were much more likely to be pharmacy users than were US-born women who completed their schooling in the United States; Mexican natives who completed their schooling in the United States constituted an intermediate group. Not surprisingly, frequent border crossing was strongly associated with obtaining OCs in Mexico. Having US health

TABLE 3—Motivations for Choosing US Clinics or Mexican Pharmacies as Source for Oral Contraceptives: Border Contraceptive Access Study, El Paso, TX, 2006–2008

	Clinic Users (n = 532)		Pharmacy Users (n = 514)	
	Stated Motivations for Using Clinics,[a,b] % or Mean (SD)	Main Motivation for Using Clinics, % or Mean (SD)	Stated Motivations for Using Pharmacies,[b] % or Mean (SD)	Main Motivation for Using Pharmacies, % or Mean (SD)
Thinks pills are cheaper	84	23	92	40
Says source is more convenient	74	6	57	4
Trusts source to give good information	87	15	46	3
Prefers brands available at source	64	1	51	5
Likes other health services provided	93	49	. . .	. . .
Clinic gives enough packs of pills	46	2	. . .	. . .
Doctor's visit not required for prescription	. . .	. . .	91	27
Family/friends can pick up pills	. . .	. . .	87	18
Clinic does not give enough packs of pills	. . .	. . .	28	0
Other reasons	5	4	1	3
Total number of motivations stated	4.5 (1.5)		4.5 (1.6)	

Note. Ellipses indicate response categories that were not applicable because some questions were asked only of pharmacy users or clinic users.
[a]Clinic users significantly differed from pharmacy users on all stated motivations to which both groups responded ($P < .001$ for all motivations).
[b]Totals for stated motivations exceed 100% because participants could state more than 1 reason for choosing source of pills.

insurance and receiving US government assistance were both associated with obtaining OCs from a clinic in El Paso.

A very large percentage of both groups reported that cost was an important advantage of their source (Table 3). Clinic users were more likely to note convenience as an advantage of their source than were pharmacy users. Brand preference was listed by participants in both groups, but especially by clinic users, whereas trust in the information provided was a much more important advantage for clinic users than it was for pharmacy users. Among clinic users, nearly all (93%) saw the other health services provided by the family planning clinic as an advantage of clinics, whereas a smaller percentage pointed to the number of pill packs

TABLE 4—Stated and Perceived Problems With US Clinics and Mexican Pharmacies as Source for Oral Contraceptives: Border Contraceptive Access Study, El Paso, TX, 2006–2008

	Problems With Clinics[a]		Problems With Pharmacies[a]	
	Clinic Users' Stated Problems With Clinics (n = 532), % or Mean (SD)	Pharmacy Users' Perceived Problems With Clinics (n = 514), % or Mean (SD)	Pharmacy Users' Stated Problems With Pharmacies (n = 514), % or Mean (SD)	Clinic Users' Perceived Problems With Pharmacies (n = 532), % or Mean (SD)
Thinks pills cost more	11	74	4	31
Says source is not convenient	33	75	17	42
Does not trust information given about the pill	. . .	. . .	14	68
Prefers a brand not available at source	11	31	. . .	. . .
Does not like the pelvic exam	8	18	. . .	. . .
Clinic does not give enough packs of pills	19	36	. . .	. . .
Fears getting stopped by US customs	. . .	. . .	35	55
Has other problems with source	3	9	4	10
Does not report a problem with source	50	1	52	7
Total number of problems stated	0.8 (1.1)	2.2 (1.4)	0.7 (0.9)	1.9 (1.3)

Note. Ellipses indicate response categories that were not applicable because some questions were asked only of pharmacy users or clinic users. Totals for stated and perceived problems exceed 100% because participants could state more than 1 problem with each source of pills.
[a]Clinic users significantly different from pharmacy users on all stated and perceived problems ($P < .001$ for all problems).

dispensed as an advantage. Among pharmacy users, very large percentages noted both not having to go to a doctor to get a prescription and being able to send a friend or relative to pick up their pills as advantages of Mexican pharmacies. When asked to name the most important motivation for choosing their source, clinic users pointed mainly to other health services provided (49%) and cost (23%). Pharmacy users frequently chose cost as the most important advantage (40%) or not having to go to a doctor for a prescription (27%).

The disadvantages of clinics most often recognized by clinic users were inconvenience and an inadequate quantity of pill packs dispensed, but fully one half of clinic users reported no problem with their source (Table 4). On the other hand, the disadvantage most frequently cited by pharmacy users was the fear of getting stopped by US customs officials upon returning to the United States. However, approximately one half of pharmacy users reported no problem with their source. By contrast, both types of users could readily point to several disadvantages pertaining to the source they were not using. Clinic users found to be drawbacks the cost of pills at Mexican pharmacies, the unreliability of the information provided there, the inconvenience of crossing the border, and the problem of getting through US customs. Pharmacy users, on the other hand, disliked the cost and inconvenience of going to clinics, problems with the brands of pills available at clinics, and the limited number of pill packs dispensed. However, only 18% of pharmacy users mentioned having to have a pelvic exam as a disadvantage associated with clinics.

Consistent with the lack of perceived problems with their own source, more than three quarters of clinic users and more than 70% of pharmacy users said they were very satisfied with their source (results not shown). Only about 4% of each group said they were either somewhat or very unsatisfied with their source.

DISCUSSION

Women in El Paso have more options for obtaining OCs than do women in most US cities because it is relatively easy to cross the border into Mexico and purchase OCs without a prescription. This option can even be extended to those whose residency status or busy lives make it difficult for them to leave the country, because they can ask a friend or relative who crosses the border to pick up pill packs for them at a Mexican pharmacy.

Our analysis of the characteristics that differentiated cross-border pharmacy users from El Paso clinic users yielded 2 main types of covariates. The first—comprising indicators for country of birth, country of last year of education, and border-crossing frequency—may be related to the ease and confidence with which a woman could cross the border and familiarity with accessing medications at pharmacies in Mexico. The second, comprised of having US medical insurance and receiving some form of US government assistance, apparently indicates eligibility to access reproductive health services for low-income women on the US side of the border. Our results for age are harder to interpret, but they might reflect a sense among older and more experienced users that they no longer needed the counseling and check-ups available at family planning clinics. That women older than 35 years were more likely to avail themselves of the OTC option is a potential concern, especially because previous studies reported a relatively high prevalence of contraindications to OCs among older women in this population.[25] However, the risks of OC use for a woman with contraindications are likely less than are those associated with an undesired pregnancy.

The reported motivations for and disadvantages of using 1 of the 2 sources indicate that our respondents had practical reasons for the choices they made. Although the main dimensions of these reasons—cost, convenience, and quality—were not surprising, actually being able to ask women about a real rather than a hypothetical choice gave us an unusual chance to delve deeper into the calculus of contraceptive access. The direct questions showed that cost was more important to pharmacy users and convenience was more important to clinic users, but pharmacy users clearly appreciated the convenience of not having to see a doctor to get a prescription and of being able to send a family member or friend to pick up pill packs for them. It is also notable that the availability of particular brands of the pill was not among the main reasons for the choice of source and that the large majority of women were satisfied with their current source of OCs.

Although our findings are specific to the El Paso context, they point to some of the aspects of clinic provision that could be enhanced in other contexts in the United States. Among clinic users who reported experiencing some inconvenience to resupply their OCs, there appeared to be a preference for obtaining more pill packs at each resupply. Because a previous study found that providing more pill packs also improved continuation,[8] this should be more widely implemented. Convenience seemed to be very important to the women we interviewed, so anything that might make pill resupply easier, such as ordering on the Internet[26] or by mail or allowing someone else to pick up the pills in person, would likely be welcomed by women. Also, although only a minority of women said that the pelvic exam was a barrier to seeking clinic services, this should be eliminated as a requirement for obtaining hormonal contraception because it is not medically necessary.[27]

As the first comprehensive report on a sample of US resident women obtaining OCs over the counter, our study also has implications for the larger debate regarding OTC provision of hormonal contraception in the United States. The fact that many pill users in El Paso make use of the cross-border OTC option,[20] together with our results regarding their motivation for doing so, suggests a substantial latent demand for an OTC option at pharmacies in the United States. The reasons participants gave for choosing a Mexican pharmacy source would be applicable to women throughout the United States, not just to those living on the border. Other research indicates that US women who are currently using less-effective contraception would be interested in starting a hormonal method if they could obtain it directly in a pharmacy without a prescription.[15,28]

A domestic OTC option would provide considerably greater convenience than the cross-border OTC option that is available to women in El Paso and in other cities along the US–Mexico border. For many clinic users, crossing the border to purchase OCs

was neither convenient nor free of risk; more than half expressed a fear of being stopped by US customs upon their return. Thus, the border represents a substantial hurdle for many women now using clinics, and even some pharmacy users said that their source was inconvenient and that they feared being stopped by customs officials. Consequently, their evaluation of the cross-border option almost certainly underestimates interest in a local OTC option with an equivalent cost per cycle. However, because cost was such an important factor for the low-income women in our study, for an OTC option to benefit such women, it would be critical that the cost be relatively low and that Medicaid beneficiaries not lose coverage.[29]

A concern raised about allowing OTC provision is whether women would continue to obtain preventive reproductive health care. A key finding of our study was that the large majority of clinic users we interviewed placed a high value on the other medical services, in addition to contraception, that they received at their clinic. Indeed, receiving these health services was the most important advantage of going to a clinic in El Paso rather than to a pharmacy in Ciudad Juárez. Similarly, most clinic users found the trustworthy information about OCs available at clinics to be an advantage; they also said they would not trust the information available at a Mexican pharmacy. Results from a pilot project of pharmacist provision of hormonal contraception in Washington State found a high level of satisfaction among participants, with 97% of women reporting they felt they could ask the pharmacist about their prescription or pose other questions.[30] Our finding that women appreciated the other health services provided by clinics is an indication that a substantial portion of clinic users would not abandon clinics after the introduction of an OTC option and would continue to get screening tests for cervical cancer and sexually transmitted infections.

Our study had some important limitations. We recruited a convenience sample of pill users. Overall, this sample was older and of higher parity than were the samples of pill users studied in the few nationally representative surveys of contraceptive practice in the United States. Relatively low use of the pill prior to a woman's first birth was also found in an earlier survey in El Paso,[20] and the age and parity distribution of our sample, rather than being an artifact of our recruiting procedures, likely reflected the low use of hormonal methods among sexually active youths. Finally, although we believe our results provide evidence of an underlying demand for an OTC option among low-income Hispanic OC users and elucidate various aspects of the challenges they face in accessing contraception through family planning clinics in the United States, we cannot estimate with any precision how many women would take advantage of an OTC option in other contexts, among either Hispanics or other segments of the population.

Our findings confirm those of hypothetical surveys documenting US women's interest in obtaining OCs over the counter. When given the opportunity, women take advantage of OTC access for a wide variety of reasons. Further research, including an actual use study, is needed to evaluate the efficacy of OTC provision in the United States. ■

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Contributors

J.E. Potter, K. Hopkins, J. Amastae, and D. Grossman originated and supervised the study. K. White assisted with the analyses. J.E. Potter and D. Grossman led the writing. All authors helped to conceptualize ideas, interpret findings, and review and edit drafts of the article.

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Human Participant Protection

The protocol of this study was approved by the institutional review boards of the Austin and El Paso campuses of the University of Texas.

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