# Strategies for Motivating Latino Couples' Participation in Qualitative Health Research and Their Effects on Sample Construction

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Many investigators report difficulties recruiting low-income Latinos into health research projects, especially when they seek to enroll more than one family member. We developed a series of strategies that proved effective in motivating candidates who were initially reluctant to enroll.

There is a possibility that these strategies biased the composition of the sample. Predictably, the reasons participants gave for enrolling were correlated with the recruitment strategy that had brought them into the study. Furthermore, we found statistically significant associations between recruitment technique and key study variables (e.g., the domestic stability of the couple).

By increasing investigators' ability to recruit Latinos, however, the strategies outlined should help to ensure that Latinos' experiences are given due weight in the deliberations of medical professionals and policymakers. (*Am J Public Health.* 2001;91:1832–1841)

Health researchers rarely discuss the process of recruiting study participants. But this paucity of discussion should not be taken as a sign that recruitment is a straightforward matter. Most investigators would agree that recruitment is often fraught with obstacles. The amount of time needed for enrollment is usually underestimated,[1–3] while the pool of potential candidates is often overestimated.[4,5]

Recruiting participants for qualitative research is often more challenging than recruiting for survey research, because qualitative research can involve a long-term relationship with investigators and may be seen as a time-consuming endeavor.[6] Recruitment is reported to be particularly difficult when the protocol calls for more than one member of a family group[7] or for participants from ethnic minority backgrounds.[8–10] The difficulties intensify when the potential participants are immigrants, especially those who are newly arrived and have yet to establish a stable residence.[11,12] It is also difficult to recruit in a medical setting for research that does not offer therapeutic benefits.[13–15]

Yet a growing proportion of the US population is from immigrant backgrounds, with by far the largest group coming from Mexico and elsewhere in Latin America.[16] This population surge has had important consequences for the delivery of medical services, particularly prenatal care, because immigrant birth rates tend to be significantly higher than those of US-born women.[17] An additional problem—and one not restricted to immigrant populations—is the failure to include male partners in most studies of prenatal care.[18,19] Men's wishes may be highly influential in women's fertility decisions, particularly in families recently immigrated to the United States.

Though rarely acknowledged, the practicalities of recruitment may have an impact on the type of research that is attempted, the data that are analyzed, and the theories and policy recommendations that result. But because immigrants are hard to recruit, they are underrepresented in health research. And because couples are hard to recruit, male partners are woefully underrepresented in research on prenatal care. Needless to say, when recruitment difficulties are combined, as is the case with immigrant male partners, the research literature is thinner still.

Researchers make use of a variety of techniques for overcoming these recruitment problems. Most previous accounts of recruiting study participants from ethnically diverse populations come from clinical trials.[2,7,8,10,20–25] Investigators have found that using recruiters from the same ethnic background as the study population, or using community leaders as intermediaries, can help. Instilling trust is important. Offering monetary compensation can also be effective.[8,9,15,26,27]

Of course, raising the recruitment rate is not the only problem researchers must overcome. They must also confront the issue of sample bias. Recruitment strategies work better for some people than for others, and the measures taken to raise the recruitment rate might also skew it, attracting some types of people at the expense of others. This may be inevitable in all studies, but it is incumbent on researchers to be aware of how the recruitment strategy influences sample composition.

The goal of this article is 2-fold. First, we wish to present and evaluate the strategies that we developed to overcome the problems of recruiting immigrant Latino couples for a qualitative health-related study. Second, we want to work through one suggestive example of how recruitment strategies can affect the composition of the study sample and therefore affect the study findings.

## THE STUDY

Our study of the amniocentesis decisions of Latino couples[28] makes a revealing test case because it posed a combination of obstacles to recruitment. We were trying to enroll an immigrant group that customarily has low participation rates in social research; we were trying to recruit couples, not just individuals; and we were approaching them at a sensitive time, in a medical setting, without offering any medical benefits.

The investigation focused on a group of Mexican-origin women in Southern California who were offered amniocentesis because they had screened positive on an α-fetoprotein (AFP) test, a routinely offered prenatal blood test.[29] Approximately 8% to 13% of US

women screen AFP-positive.[30–33] A positive AFP result indicates an increased risk of fetal anomaly, including neural tube defects; intestinal, kidney, liver, or placental problems; and Down syndrome and other chromosomal anomalies.[34]

The AFP test is only a screening test and provides no diagnostic information. In California, women who screen AFP-positive are offered genetic counseling and a high-resolution ultrasound in an effort to establish a definitive diagnosis. In about half the cases, the ultrasound reveals the reason for the positive result, the most common reason being that the pregnancy was either more or less advanced than had been thought. However, should the sonogram fail to provide an explanation, the woman is generally offered amniocentesis—an invasive procedure that carries a small risk of miscarriage.[35,36] (Miscarriage rates following amniocentesis in California hospitals can range from 1/500 to 1/200 [H.M. Preloran, C.H. Browner, and E. Lieber, unpublished field notes, 1996].) This risk, and the fact that most anomalies detected by fetal diagnosis have neither treatment nor cure, often leads pregnant women to experience intense anxiety if they screen AFP-positive. It was during the period when couples were deciding whether to undergo amniocentesis or waiting for their results that we had our first recruitment contacts.

Participation in our study required one face-to-face interview, lasting a little more than an hour, with each member of the couple, as well as a willingness to respond to one or more phone requests for additional information should the need arise. Although the original design called for separate interviews, some candidates would agree to participate only if they and their partner could be interviewed together; thus, 45% of the study participants were interviewed jointly.

We wanted to include male partners in our study of amniocentesis decisions to redress a significant lacuna in most existing work on the subject, which focuses almost exclusively on women. As a result of this research gap, we know little about men's values, attitudes, and needs in relation to fetal diagnosis or how they might affect women's decisions. We wanted to test our hypothesis that male partners' roles in Latinas' reproductive decisions are often underestimated.[37] Anecdotal accounts reveal that couples often differ in their views about prenatal testing,[38,39] but we know little about how differences within couples are resolved.[40] These issues promised to be particularly salient in Latino populations, where evidence suggests that men's wishes can be decisive in women's fertility decisions.[41–43]

The woman and her male partner remained the analytical unit throughout our investigation, but our conception of "couple" changed as the study advanced. In our initial conception, a couple was defined as 2 people who shared the biological parenthood of the fetus, constituted a social and economic unit (with a shared residence and family budget),[44–46] and intended to provide emotional and material support to the child after its birth. But early on we found that in the greater Los Angeles area, couples with these characteristics were not easy to find or enroll. Some couples shared social and economic responsibilities and made joint reproductive decisions even though they lived apart. In other cases, men might appear prominently in women's accounts of their amniocentesis decisions while the men themselves were seemingly uninvolved.[47,48] Accordingly, we made an extra effort to include such male partners in our investigation.

## THE RECRUITMENT STRATEGIES

Over the course of our recruitment efforts, we employed 4 distinct strategies. In the "standard" approach, one of the partners, usually the woman, would first be contacted in person, and then the researcher would follow up by telephone with both partners. On occasion, both partners were recruited "on the spot" at the genetic clinic, without the need for follow-up calls. However, on occasion we were forced by circumstance to resort to 2 other approaches. In the case of "co-recruitment," we would first recruit the woman, she would broach the issue of participating with her male partner, and the researcher would complete the process. Under the "brokering" strategy, the female partner would independently recruit the male partner without further help from us.

During a period of approximately 24 months, the recruitment coordinator (H.M.P.), who is Latina, and 3 assistants, all of whom are Latina, attempted to contact the 1305 Spanish-surnamed women who were offered amniocentesis at 6 genetic clinics in southern California. From the initial pool, 783 (60.0%) did not meet our enrollment criteria for a variety of reasons (e.g., they were Latino but not of Mexican origin, the AFP result was false-positive, they were being offered amniocentesis for other reasons). Another 132 (10.1%) could not be recruited for other reasons (e.g., separation or divorce; phone disconnected; failed to answer phone calls; woman told recruiter that partner would not be interested; partner deported, imprisoned, or working outside the area).

Three hundred and ninety (29.9%) eligible women remained. Of these, 243 (62.3%) declined participation, either actively—by openly stating they were not interested—or passively—by avoiding phone contact or canceling more than 5 appointments. While we were obligated to respect the candidates' right to refuse, we were concerned that our sample might be biased if the refusals followed a systematic pattern. We could obtain only limited information from candidates about their reasons for declining to participate in our research. The most common explanation was the wish to be left alone. Anecdotal evidence also suggests that fear was a significant factor in refusal. For example, some women were unwilling to give us their home address; others said they could not receive visitors or leave the house. Some men said they feared that participating in the study would only add to the upset their partners felt after the positive screening test result. Although these explanations are informative, the number of candidates who provided such explanations is too low to permit generalization.

In recruiters' daily field notes, information about each contact with a potential participant and the participant's reasons for accepting or declining were recorded. For successfully recruited candidates, reasons for participation were coded inductively. Answers such as "I don't know," "Because I want to" (without specifying why), and "No particular reason" were categorized as "No particular reason." When respondents expressed appreciation for the interest the re-

**TABLE 1—Characteristics of the Study Population: Mexican-Origin Women and Their Partners Recruited From Southern California Genetic Clinics, 1995–1997**

| | Women (n = 147) | | Men (n = 120) | |
|---|---|---|---|---|
| | No. | % | No. | % |
| Ethnicity | | | | |
| Mexican American[a] | 45 | 30.6 | 34 | 28.3 |
| Mexican immigrant[b] | 102 | 69.4 | 76 | 63.3 |
| Other Latino[c] | . . . | . . . | 10 | 8.3 |
| Education | | | | |
| Primary or less | 37 | 25.3 | 31 | 26.7 |
| Secondary or less | 72 | 49.3 | 60 | 51.7 |
| More than secondary | 37 | 25.3 | 25 | 21.6 |
| Annual household income, $ | | | | |
| <10 000 | 49 | 34.5 | 34 | 28.8 |
| 10 001–20 000 | 42 | 29.6 | 43 | 36.4 |
| ≥20 001 | 39 | 27.4 | 34 | 28.8 |
| Unknown | 12 | 8.5 | 7 | 5.9 |
| Religion | | | | |
| Catholic | 125 | 85.0 | 96 | 80.0 |
| Other | 15 | 10.2 | 10 | 8.3 |
| None | 7 | 4.8 | 14 | 11.7 |

*Note.* Numbers add up to fewer than 147 (women) and 120 (men) because of missing data.
[a]Born in the United States or immigrated before completing primary school.
[b]Immigrated after completing primary school.
[c]From a Hispanic background other than Mexican.

searcher had shown in them and wanted to reciprocate by helping (e.g., *"una mano lava la otra"* ["one hand washes the other"]), responses were coded as "Helping researcher." The responses of candidates who said they were interested in learning more about the implications of their own test results or about genetic testing in general were classified as "Gaining knowledge."

Finally, 122 couples were successfully recruited (although only 120 couples actually completed the study). They provide the basis for the following analysis of successful recruitment approaches. In addition, we included 27 women who were part of a couple when they agreed to enroll in the research but became single before we could interview their partners. (See Table 1 for general characteristics of the study population.) We retained these 27 newly single women in part to examine the effect of marital status on recruitment efforts and study variables, which would have been impossible had the sample consisted only of couples. Among these 27 were 6 who by circumstance happened not to be living with their partners at the time of the interview, for instance, if the partner had had to make an unexpected trip to Mexico. The relationships of the other 21 were genuinely unstable in that the men had practically disappeared or were otherwise indifferent to the pregnancy. This fact had a significant effect on our ability to recruit those men.

## ENROLLMENT RATES

Enrollment rates varied at different stages of our research. During the pilot phase, they were extremely low, at 3.3%. At that time we were bound to and restricted by an approach that made direct contact with candidates difficult. Our clinic sponsors insisted that candidates be formally introduced to us by medical personnel, who would also explain the aims and benefits of our study and ask for the client's collaboration. The slow pace of recruitment prompted us to request more direct contact with candidates. Our request was eventually granted on the condition that candidates be approached in the presence of medical personnel. Enrollment rates rose to 8.0% once this change was implemented.

Over time we gained greater trust from our medical sponsors, and we were eventually allowed to recruit more independently. Yet although we now had the visible support of clinic staff, for the most part we were left to recruit on our own. We found that the key to achieving this level of staff cooperation was to follow the rules of each field site but to as be invisible as possible. When we were given the freedom to use all 4 of our recruitment strategies, we were able to achieve an enrollment rate of 37.7%.

It is important to note that our greater success at recruiting did not necessarily mean that our new strategies were cost-effective.[49] Our procedures were often very time-consuming for both researchers and participants, since motivation to participate was usually low, and the need to enroll both partners made the effort more difficult.[7] On-the-spot recruiting was the least labor-intensive strategy, while brokering proved to be the most demanding. Co-recruitment was somewhat less labor-intensive than our standard approach.

Given that most of our candidates were not particularly interested in participating in our investigation, we needed to find ways to motivate them. Assigning bilingual, bicultural recruiters was very helpful in building trust, as other researchers working with ethnic minority groups have found.[9,27,50,51] But our research went a step further. Taking a cue from the candidates themselves, we found we could motivate them by appealing through aspects of the "traditional" gender roles found in Latino culture.

## CULTURAL SCRIPTS FOR MOTIVATING FEMALE PARTICIPATION

Couples were our target population, but most of our initial contacts were made with women—not least because nearly half of the female candidates came for genetic counseling alone or with partners who were occupied elsewhere watching their children. In the clinic waiting rooms, it quickly became clear to us that many of the women we sought to recruit for our sample, especially those who were relatively new immigrants, were anxious, ill at

ease, or reluctant to ask questions of clinic staff, especially if the staff member did not appear to speak Spanish. In addition, many had brought young children with them.

We offered to perform small favors, such as helping the women communicate with clinic staff, complete hospital or insurance forms, or find a pay phone, or watching their children while they were attending to medical or administrative matters. We listened sympathetically to complaints about the long hours of waiting and occasionally offered emotional support to women who were upset about the prenatal genetic testing decisions they were facing. Sometimes we sought to establish friendly ties by providing information or offering help even before introducing ourselves as researchers.

Some may question whether the approach to recruitment used here was ethical, because we began to develop friendly relationships with potential participants before completely disclosing the details of our research.[52] However, it is safe to assume that potential study participants would not mistake us for clients or staff. Although we were present in the waiting room for several hours at a time, it was clear we were not waiting to be seen by a clinician. We did not dress like clinicians or perform formal clinical responsibilities. Moreover, in compliance with institutional review board ethical requirements, any interested candidates were given a comprehensive explanation of all aspects of the project before any participation began. That is, we explained that their prenatal care was in no way connected with participation in our study, that they could decline to answer questions that made them uncomfortable, and that they could withdraw from participation at any time.

We did make minor modifications in the sequence of our recruitment protocol from time to time. For example, we brought up with the women earlier than we did with the men the $40 monetary incentive and the fact that the interview would give them a chance to discuss their feelings about amniocentesis. But in all cases, we fully disclosed the research goals and procedures. Participants always read and signed the consent form detailing the study's objectives and what participation would involve prior to any formal interview. These measures minimized the possibilities for misunderstanding between researchers and candidates and provided an environment in which participants could freely raise their concerns.

Regarding to our recruitment approaches, 2 conversational topics that often helped "break the ice" were the women's children (who were sometimes playing near their mothers while we were chatting) and the women's hopes and beliefs about the sex of the fetus. Although conversations could be helpful in establishing rapport, offering small services was more effective. These interactions followed a "cultural script" that we came to call *comadrismo,* a term derived from *madre* or (mother) that is commonly used by Latinas to describe relationships of trust and mutual support among women. In employing *comadrismo,* we employed the classical anthropological approach of participant observation.

The participant observation approach involves engaging in the same activities as study participants, or coming as close as it is possible for an outsider to do.[53,54] Sometimes nurses, rushing to fulfill multiple demands, asked us to show patients how to fill out forms or walk them to the room where they would have their next appointment. On other occasions, patients who had already seen us doing those tasks similarly requested our help, or we offered it to them. Occasionally, in the course of chatting with candidates who found themselves with an unusually long wait at the hospital or clinic, we indicated that we were involved in a research study that might interest them. In other cases, we introduced ourselves in the waiting room and asked if we might talk more with them after they finished their medical appointment. We believe these diverse approaches did not obscure our intentions, but rather were used to sensitively discover the time at which the candidate would be most sympathetic to the request to participate in our research.

Usually after we had established an initial rapport with a woman, we introduced ourselves as social researchers interested in talking with her at greater length about her pregnancy. While we alluded to our interest in issues surrounding prenatal diagnosis, we placed more emphasis on wanting to talk with her about her feelings rather than her decision about amniocentesis. When a woman seemed receptive but noncommittal (i.e., responding with, "I'd prefer to think about it") we waited until she had completed her genetic consultation and ultrasound testing before continuing our recruitment efforts. At that point, we explained that we could conduct the interview in a more relaxed environment, such as the woman's home, and emphasized that we did not intend to be a burden. This was sufficiently reassuring for several women, who then agreed to enroll in the investigation.

We also introduced the incentive of financial compensation, characterizing it as a "small amount" offered as a token of our appreciation for the participant's time. (The amount was $20 per person, $40 per couple; all participants were compensated at the conclusion of their interviews). Some who had initially hesitated expressed more interest once they learned of this incentive. At this point, we explained that participation in the study would also require an interview with the male partner. A number of women continued to show interest but said they were still undecided. We therefore asked permission to call them at home, reminding them that they were under no obligation and that their refusal would in no way jeopardize their prenatal care.

Becoming *comadres* (i.e., offering resources and services, including the monetary compensation) appears to have been significant in motivating some women who had been otherwise reluctant to enroll. The financial incentive was not the decisive factor in most cases, but it did make a difference for women who seemed less inclined to participate and who may have been politely trying to refuse by saying they would think about it or call back. After learning that they would be compensated for their time, several women responded more positively, giving more precise instructions, such as, "Call me tomorrow after 9 AM, or better, after dinner if you also want to speak to my husband."

## INVISIBLE MEN

Once women agreed to participate, we turned to the task of recruiting their partners. In about 12% (17 of 147) of cases, this was an easy task; both partners attended the ge-

netic consultation and both agreed on the spot to be part of our investigation. In an additional 58 cases, the woman said she was interested and agreed to let us call her partner at home. All men contacted under these circumstances, which we called our standard procedure, agreed to enroll in the research. In the remaining cases, however, we found we needed the woman to collaborate in recruiting her partner. To facilitate these efforts, we developed the strategies of co-recruitment and brokering, which we describe below.

Our hopes of recruiting most men on the spot, at the genetic clinics, went unfulfilled. About half the men did not attend their partners' prenatal genetic consultation, and a large proportion of those present tended to be physically separated from their partners, taking care of their children, pacing in the corridors, or outside in the parking lot checking on their automobiles. As a result, most male recruitment was done by telephone. Unfortunately, however, the men were usually not available when we called, and many did not return our phone calls. (We had planned on making a maximum of 6 follow-up calls but chose to increase this to 10.)

The difficulty we had recruiting men for our study was in itself instructive, casting a revealing light on some of the attitudes we hoped to investigate in the study proper. The men's failure to attend their partners' prenatal genetic consultation and their reluctance to communicate with us may have indicated a more general disengagement from their partners' amniocentesis decisions. Since men's roles in such decisions were central to our research, we became even more concerned to recruit men to explore the meaning of their apparent lack of interest and distance from the process. We also faced an obvious danger of sample bias, if the only men who agreed to participate in the study were those who were involved in the amniocentesis decision to an unusual degree.

In comparison with the face-to-face relationship of *comadrismo*, which proved effective in recruiting women, indirect contacts worked better with most men. This led us to develop the co-recruitment and brokering approaches. In co-recruitment, the researcher and the female candidate, sometimes with the help of other family members, shared responsibility for motivating the man to participate. We recruited 29 couples in this manner. This recruitment strategy was, in fact, first suggested to us by several women who offered to "soften up" their partners prior to our contacting them.

Co-recruitment was also used as a secondary strategy when a woman realized that her own efforts to recruit her male partner were not enough. On one such occasion, a woman helped us to recruit her reluctant husband by instructing her mother-in-law to leave the house at the time of our call so that her husband would be forced to answer the phone. Another woman offered to "kidnap" her husband by having her eldest son ask him to stay home to work on the family car until we could meet him at home to request his participation. In a third instance, the sister-in-law of a female candidate agreed to organize a meeting between us and her brother. These examples illustrate how the female candidates enlisted other members of their families in the co-recruitment process.

Brokering was the other strategy successful in recruiting male partners. In these cases, the women offered to recruit their partners themselves, and our own role was a passive one. Forty-five female candidates offered to act as brokers, and 43 of these women completed the study. Initially, this approach seemed cost-effective, as it involved no additional time investment on our part. Unfortunately, however, brokering also had the highest male withdrawal rate (22/45, or 48.9%), far exceeding the rates of the other 3 approaches (7/104, or 6.7%). Nevertheless, our experiences observing women acting as recruitment brokers with their male partners were instructive, in that they helped us develop a cultural script that proved fruitful in our own attempts to recruit men.

## CULTURAL SCRIPTS FOR MOTIVATING MALE PARTICIPATION

At first we thought we could "train" women for the task of recruiting their male partners. We suggested that they emphasize the benefits of participation, that is, that we were offering to pay them to discuss issues of interest to them without their having to leave their homes. For the most part, our suggestions were dismissed with polite smiles, but one woman told us directly, "Don't worry, I know how to turn my husband around." When asked how she would do it, she replied, "I'm going to tell him [the study] is for the good of the children. . . . I know that if we want to convince him, we should forget the talk about money—don't even mention it to him—he is too proud to accept money for something like this." Similarly, another potential broker observed, "My husband won't understand getting paid for answering some questions. What I have to do is convince him that the person who will come is working for the good of the *barrio* [community]. Besides, he needs to be sure you won't make any trouble. He is afraid I will open the door to strangers."

These responses prompted us to ask other women how they had approached their partners. Two themes recurred in the women's testimony—altruism, toward the child they were expecting or toward the community, and home security. Learning from the women, we incorporated both of these themes into our general approach to male recruitment. When contacting men we emphasized the altruistic aspect of "collaborating with the research for the good of the children and the Latino people." We also took care to allay men's security concerns by explaining that we would send an interviewer, generally a woman, who could be trusted.

Just as we had drawn upon the culture of Latino women to develop the *comadrismo* script, we sought to couch our approaches to Latino men in a cultural script that was familiar to them. We developed an approach that we termed *poderismo* ("powerism"), in which men were assured that they would retain control of the research process at all times, deciding when and where to meet and, should they wish, when to withdraw from the study. Under *poderismo*, men were encouraged to express their concerns about participating and to suggest ways to resolve these concerns. Instead of anticipating problems and offering solutions, as we often did with women, we would pose the question, "What should we do about this?"

The following excerpt of a recruitment interaction between C (a male candidate) and R (researcher) helps to illustrate central characteristics of the *poderismo* approach—reassuring

men that they are in control of the situation, acknowledging the importance of home security, and showing a concern for their partner's well-being.

> C: I don't think I could participate; here at home it is always too crowded and many times I have to work at night and I need to rest during the day.
>
> R: I see you have these problems. . . . What should we do?
>
> C: Could you meet any place?
>
> R: Yes. . .
>
> C: I don't know . . . it would be too difficult. . . . And besides, I don't want a stranger to come . . . you know, these days. . .
>
> R: Right. . .
>
> C: And besides, . . . I don't want her to be sad talking about these things again.
>
> R: I don't know . . . maybe she will feel better if she can talk.
>
> C: I don't know. . .
>
> R: If you decide to give it a try and you don't like it, or you see she is sad, and you decide to stop the interview, for any reason, we will stop, no questions asked.
>
> C: Well, I have to talk with my wife.
>
> R: I hope you'll join us, and remember that in this study we will follow your commands. If you decide to help us, we'll appreciate it, but if you don't, . . . we understand your reasons.

Using this combination of co-recruitment and brokering, together with the *poderismo* script, we were able to recruit many otherwise reluctant men, who were not necessarily present at the genetic consultation. Ultimately, our study population consisted of nearly equal numbers of men who were present at the genetic consultation and men who were absent, allowing us to account for the role men play in their partners' amniocentesis decisions.

## RECRUITMENT APPROACH, REASONS FOR PARTICIPATING, AND OTHER STUDY VARIABLES

When a variety of recruitment strategies are employed, it is possible to examine statistically whether the attitudes, characteristics, and circumstances of study participants vary systematically with the recruitment techniques that brought them into the sample. There were no statistical associations between the way participants were recruited and such basic sociodemographic characteristics as their age, birthplace, religion, household income, education, or degree of acculturation. But other study variables were statistically associated with the recruitment approach.

We found strong statistical associations between recruitment approach and women's and men's reported reasons for participating in the investigation ($\chi^2_{(6)}=50.44$, $P<.001$, and $\chi^2_{(9)}=41.61$, $P<.001$, respectively). Categories for reasons for participating in the study were created inductively and open-ended responses were coded into them. We found that both male and female respondents who were recruited on the spot were much more likely than others to indicate "gaining knowledge" as their principal reason for participation. On the other hand, women recruited through the standard approach or through brokering were more apt to say that they agreed to participate in order to help the researcher. In contrast, men enrolled through co-recruitment said that their main reason for participating was that their partners had asked them to, while men recruited by the standard approach typically said they agreed either to gain knowledge or to help their community (Tables 2 and 3).

We also found a statistically significant relationship between recruitment strategy and the domestic stability of the couple ($\chi^2_{(3)}=33.06$, $P<.001$). The brokering group had the highest proportion of women in unstable domestic situations. As previously indicated, the group also comprised most of our male recruitment failures. Of the 45 women who offered to act as brokers, 10 were in somewhat friendly relationships but living separately from their partners, while 7 had recently had serious arguments with their partners and asked us to postpone their interviews until their relationships had settled back down. Of those 7 women, 5 were subsequently abandoned by their partners during the course of the study, and the other 2 were unable to motivate the men to keep previously scheduled interview appointments. In addition, 3 men who were cohabiting with their partners left before starting the interview because they had fought with their partners, and 2 couples with no apparent problems began to argue with

**TABLE 2—Percentage of Women Endorsing Reasons for Participation in the Study, by Recruitment Strategy: Mexican-Origin Women and Their Partners Recruited From Southern California Genetic Clinics, 1995–1997**

| | On the Spot (n = 17) | Co-Recruitment (n = 29) | Standard (n = 58) | Brokering (n = 43) |
|---|---|---|---|---|
| Gaining knowledge | 52.9 | 24.1 | 13.8 | 18.6 |
| Helping researcher | 23.5 | 20.7 | 39.7 | 81.4 |
| No particular reason | 23.5 | 55.2 | 46.6 | . . . |

*Note.* See text for description of strategies. Minimum pairwise comparison, $t = 1.98$, $P < .05$ (on-the-spot group vs co-recruitment group).

**TABLE 3—Percentage of Men Endorsing Reasons for Participation in the Study, by Recruitment Strategy: Mexican-Origin Women and Their Partners Recruited From Southern California Genetic Clinics, 1995–1997**

| | On the Spot (n = 16) | Co-Recruitment (n = 26) | Standard (n = 55) | Brokering (n = 23) |
|---|---|---|---|---|
| Gaining knowledge | 87.5 | 34.6 | 38.2 | 34.8 |
| Partner asked | . . . | 42.3 | 5.5 | 26.1 |
| Helping community | 6.3 | 19.2 | 27.3 | 4.3 |
| No particular reason | 6.3 | 3.8 | 29.1 | 34.8 |

*Note.* See text for description of strategies. Minimum pairwise comparison, $t = 3.26$, $P < .01$ (on-the-spot group vs brokering group).

**TABLE 4—Status of Relationships of Women Participating in the Study, by Recruitment Strategy: Mexican-Origin Women and Their Partners Recruited From Southern California Genetic Clinics, 1995–1997**

| | On the Spot (n = 17) | Co-Recruitment (n = 29) | Standard (n = 58) | Brokering (n = 43) |
|---|---|---|---|---|
| Unstable | . . . | 10.3 | 1.7 | 39.5 |
| Stable | 100.0 | 89.7 | 98.3 | 60.5 |

*Note.* See text for description of strategies. Minimum pairwise comparison, $t = 2.71$, $P < .01$ (brokering group vs co-recruitment group).

their children and each other and stopped the interviews. The brokering group was the only one in which we lost 2 women and the only one in which we were unable to recruit or retain nearly half of our male population, a striking statistic considering that we lost only 7% of male partners in the other 3 groups combined (Table 4).

We have no data to tell us whether candidates were persuaded to participate in the study by their relatives. But as a proxy measure, we can look at how much candidates said they were influenced by relatives when making their amniocentesis decision. We discovered a statistically significant relationship between the way candidates were recruited and the weight they gave to the opinions of relatives when making their amniocentesis decisions ($\chi^2_{(12)} = 55.17$, $P < .001$, and $\chi^2_{(12)} = 32.64$, $P < .001$, for women and men, respectively).

The majority of men and women in the on-the-spot group said that both partners' opinions counted equally in the amniocentesis decision. In contrast, most of the female "brokers" (who recruited their partners independently) said that their own opinion was the most important. Women in the standard group (who were first contacted at the clinic and then recruited with their partners over the telephone) were evenly divided between those who thought their own opinion carried the most weight and those who thought both partners' opinions held equal weight. Most of the men in the standard group thought both partners' opinions counted equally, with some 20% thinking that their own opinion counted most. Interestingly, the co-recruitment group contained the largest proportion of individuals who said that the opinion of someone else—family or friends—was most important in their amniocentesis decision. This suggests that members of the co-recruitment group tended to be more involved with family members than were those in the other study groups (Tables 5 and 6).

Finally, and unexpectedly, while the overall $\chi^2$ test was not significant ($\chi^2_{(3)} = 5.69$), pairwise comparisons revealed that individuals recruited on the spot were significantly more likely than those in any other group (minimum $t = 2.15$, $P < .05$) to agree to amniocentesis (Table 7).

## DISCUSSION

Overall, our strategies raised the recruitment rate to just under 38%, a respectable figure given all of the difficulties associated with recruiting immigrants and couples during a sensitive time. We were even more successful at retaining participants: only 1 man and 2 couples decided to drop out once we had begun interviewing them. Nevertheless, because our study population was made up of individuals who were predisposed to seek biomedical prenatal care, we cannot generalize our results to others.

Our experiences proved that rapport is as vital to recruitment as it is to qualitative research itself. This fact was starkly illustrated

**TABLE 5—Percentage of Women Endorsing Most Important Sources of Opinion About Amniocentesis Decision, by Recruitment Strategy: Mexican-Origin Women and Their Partners Recruited From Southern California Genetic Clinics, 1995–1997**

| | On the Spot (n = 17) | Co-Recruitment (n = 29) | Standard (n = 57) | Brokering (n = 42) |
|---|---|---|---|---|
| My own | 5.9 | 27.6 | 50.9 | 71.4 |
| Equal between partners | 88.2 | 34.5 | 45.6 | 19.0 |
| Relatives | . . . | 27.6 | 3.5 | 9.5 |
| Friends | 5.9 | 3.4 | . . . | . . . |
| Others | . . . | 6.9 | . . . | . . . |

*Note.* See text for description of strategies. Women in the co-recruitment group reported significantly higher percentages of "other" opinions compared with the standard group (minimum pairwise comparison, $t = 4.19$, $P < .001$) and the on-the-spot group (minimum pairwise comparison, $t = 2.22$, $P < .05$) and showed a consistent, though not significant, trend with the brokering group (minimum pairwise comparison, $t = 1.3$, $P < .20$).

**TABLE 6—Percentage of Men Endorsing Most Important Sources of Opinion About Amniocentesis Decision, by Recruitment Strategy: Mexican-Origin Women and Their Partners Recruited From Southern California Genetic Clinics, 1995–1997**

| | On the Spot (n = 16) | Co-Recruitment (n = 25) | Standard (n = 51) | Brokering (n = 22) |
|---|---|---|---|---|
| My own | . . . | 4.0 | 25.5 | 9.1 |
| Equal between partners | 100.0 | 60.0 | 70.6 | 86.3 |
| Relatives | . . . | 28.0 | 4.0 | 4.5 |
| Friends | . . . | 4.0 | . . . | . . . |
| Others | . . . | 4.0 | . . . | . . . |

*Note.* See text for description of strategies.

**TABLE 7—Percentage of Women Deciding to Accept Amniocentesis, by Recruitment Strategy: Mexican-Origin Women and Their Partners Recruited From Southern California Genetic Clinics, 1995–1997**

| | On the Spot (n = 17) | Co-Recruitment (n = 29) | Standard (n = 58) | Brokering (n = 43) |
|---|---|---|---|---|
| Declined | 12.5 | 44.8 | 41.4 | 44.2 |
| Accepted | 87.5 | 55.2 | 58.6 | 55.8 |

*Note.* See text for description of strategies. Minimum pairwise comparison, $t = 2.15$, $P < .05$ (on-the-spot group vs standard group).

by the extremely high rates of refusal that dogged us at the beginning of the research, when we were required to contact candidates through medical intermediaries. Our recruitment strategies required relatively extensive and uninhibited access to the potential candidates prior to securing their consent. Candidates who agreed to enroll in the study said they felt we were genuinely concerned about them as individuals and sensitive to the realities of their lives, and they wanted to reciprocate.

We asked some who were initially reluctant how they overcame their concerns. One woman replied, "When you asked me to participate I said to myself, 'Here it goes again,' [but] when you kept calling me day after day . . . chatting [with you] made me see you were really interested in what happened to me [at the genetic center]." Another woman had a similar reaction: "I like it when things are more personal. . . . When Jeff [the interviewer] told my husband he would love to go with him to the restaurant [the participant had invited Jeff out for dinner] we liked that. . . . We said, 'Fine,' and we would do it." When we asked one man who had been particularly skeptical what changed his mind, he explained, "She [his partner] convinced me because she said that talking to the girl [the recruiter] made her feel good." In addition, some participants indicated that learning that emotional support and psychological referrals would be available for the duration of their pregnancies were important factors in their decision to enroll in the study.

To raise the recruitment rate to 38%, it was necessary to use a variety of strategies. There was no one recruitment strategy that could, on its own, ensure the participation of a high proportion of male and female Latino candidates. The strategies we have outlined here are complements, not substitutes: they were not better or worse strategies per se, they were better or worse for specific subgroups of the population, according to their circumstances and inclinations. To achieve an overall recruitment rate of 38%, the entire set of strategies—on-the-spot, standard, co-recruitment, and brokering—was needed.

**TABLE 8—Percentage of Endorsed Reasons for Participation in the Study, by Sex: Mexican-Origin Women and Their Partners Recruited From Southern California Genetic Clinics, 1995–1997**

| | Men (n = 120) | Women (n = 147) |
|---|---|---|
| Gaining knowledge | 43.3 | 21.8 |
| Partner asked | 16.7 | NA |
| Helping researcher | 3.3 | 46.3 |
| Helping community | 15 | 0 |
| No particular reason | 21.7 | 32 |

*Note.* NA = not applicable. Because the code categories for this variable differed for the men and women, these data are presented for descriptive purposes only.

While aspects of our approach, such as financial incentives and expressions of genuine caring, have been used successfully in other investigations, the cultural scripts of *comadrismo* and *poderismo* we developed made a real contribution. Why were these cultural scripts effective? We can shed some light on this issue by looking at the different reasons men and women gave for participating in the study (Table 8).

Forty-six percent of the women recruited through *comadrismo* indicated that they had enrolled in the study as a way of reciprocating the support and assistance we had provided. On the other hand, 43% of the men enrolled in order to gain more knowledge. Many men, even those who attended the genetic consultation, felt unsure about the genetic information they had been given and seemed to regard the interview as an opportunity for clarification. For example, one man said, "I didn't understand the chart with the black spots that come in pairs [chromosomes], so if you come with it and explain it to me, I'll do the interview."

In both cases, the cultural scripts served to recast an unfamiliar relationship into one that was culturally familiar. Most of our candidates were uncertain, concerned, and confused about prenatal diagnosis. They tended not to feel sure of themselves or in command of their situation. If we had not recognized this fact, our recruitment efforts might have added to the confusion: we were approaching candidates at a clinic, but we were not doctors; we were asking questions related to medicine, but we were not offering any medical services. However, by framing our requests in terms of *comadrismo* and *poderismo,* we encouraged our male and female candidates into roles that were familiar and perhaps even comforting to them. Many female participants felt close enough to us to talk very openly about what it meant to them to have their pregnancies declared high-risk and what was involved in their decision to accept or decline amniocentesis. Likewise, by putting men "in charge" of the research proceedings, *poderismo* gave men a reassuringly familiar role in an otherwise unfamiliar domain.

These approaches were successful in raising the recruitment rate, but we must also consider the *pattern* of recruitment: what type of person is being attracted by a particular recruitment tactic and what type of person is rejecting it? Is the pattern of recruitment affecting the composition of our sample in a way that might bias our findings? As we have shown, our recruitment strategies were systematically related to a number of study questions, including the domestic stability of the couple and whether they agreed to amniocentesis.

The statistical relationship between domestic stability and recruitment approach is not difficult to explain. An unstable couple that does not function well as a unit is unlikely to be recruited as a unit. Getting the 2 partners together requires negotiation. In our study, the female partner normally wanted to handle this negotiation herself, rather than letting an unknown researcher intrude on difficult emotional territory. Unfortunately, this kind of independent brokering had the worst rate of retention of all the recruitment strategies.

These difficulties in recruitment and retention mean that unstable couples are liable to be underrepresented in study samples in general. The problem is compounded by the fact that domestic stability is difficult to assess a priori—at the time that the sample is being taken—with the consequence that the researcher cannot know the extent of the sample bias. This raises the likely possibility that social scientific research on couples is based disproportionately on stable couples.

Of more direct concern to our research project was the relationship between recruitment strategy and our central study variable: the amniocentesis decision. We can offer a number of plausible explanations for the fact that candidates recruited on the spot, at a genetic clinic, were significantly more likely to agree to amniocentesis. We know that women who were accompanied to the genetic consultation by their male partners (roughly 50% of the total) were significantly more likely to agree to amniocentesis,[55] and by definition, women who were recruited on the spot were so accompanied. It may be that couples who jointly attend a genetic consultation are more compliant and more likely to follow clinical recommendations.[48] Alternatively, it may be that women who are already inclined toward amniocentesis encourage their partners to come with them, so that they themselves will not bear the full weight of the decision.[56] It may also be that men who are more involved in their partners' pregnancies are more likely to want them to have amniocentesis and make a point of attending the genetic consultation in order to have some influence over the decision.

Whatever the explanation, this relationship illustrates the profound way in which recruitment strategies can affect study findings. Had our study of amniocentesis decisions relied exclusively on on-the-spot recruitment, our sample would have been seriously biased against couples who refuse amniocentesis.

Hence, our decision to employ multiple recruitment strategies was necessary not only to boost the recruitment rate, but also to *balance* the recruitment rate, ensuring that our study did not over- or undersample people on one side of an important research question. As it was, there was no significant difference between the rate of amniocentesis acceptance in our interview sample and the rate among all of the AFP-positive, Mexican-origin women offered amniocentesis at the 6 participating genetic clinics during 1996.[55]

## CONCLUSION

Our exploratory investigation has drawn needed attention to the relationship between recruitment strategies, sample construction, and research results. Our findings certainly highlight the challenge of eliciting information on nonparticipants while respecting their desire to be left alone. Although in our case recruiters' ethnic backgrounds matched those of participants, this does not mean that our recruitment strategies were successful for this reason alone. Researchers from cultural backgrounds that are different from those of study participants can also develop recruitment strategies that are sensitive to participants' ethnic backgrounds.

Although our investigation was qualitative, our findings should also apply to the design of recruitment strategies for quantitative research that involves couples and for public health initiatives in a variety of areas, ranging from sexuality and family planning to health education and immunization campaigns; the difficulties in gaining candidates' trust and eliciting participation are the same. Regardless of candidates' ethnic background, recruitment designs should be flexible and diverse, because candidates typically bring diverse and multiple agendas to a research endeavor. By offering more effective ways to enroll Latino couples in health research, we hope this article will promote a better understanding of how to meet the public health needs of this and other understudied populations. ■


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### Contributors

H. Mabel Preloran planned the study, gathered and analyzed the data, and wrote the paper. Carole H. Browner designed the instruments, analyzed the data, and contributed to the writing of the paper. Eli Lieber assisted in planning and conducting analyses and contributed to the writing of the paper.


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