THE MANAGEMENT OF EARLY PREGNANCY: COLOMBIAN FOLK CONCEPTS OF FERTILITY CONTROL

CAROLE BROWNER
Department of Anthropology, Wayne State University, Detroit, MI 48202, U.S.A.

Abstract—Population researchers have long debated the extent to which women throughout time may have controlled their own fertility. The lack of sophisticated contraceptive technology until recent years led to the belief that long-term fluctuations in birth rates were the result of circumstance rather than deliberate birth control practices. Case materials from Cali, Colombia are presented to show one way women influenced the frequency and timing of births without modern contraceptives. Women in Cali take advantage of the ambiguity about when a pregnancy begins to practice early pregnancy control. The Colombian folk pharmacopeia contains a large number of substances to bring on a late menstrual period and to induce an early abortion. Users often do not distinguish between the two effects. Voluntary abortion is illegal, socially disapproved, and subject to strict negative sanction. Yet the difficulty distinguishing between a late menstrual period and an early abortion allows women a degree of unsanctioned choice. They recognize an intermediate state when a potential pregnancy may be reversed, because it is too early to confirm its existence. Cali women control fertility during this early pregnancy period while avoiding guilt and social disapproval.

INTRODUCTION

Increased attention has recently been paid to birth control practices in preindustrial societies [1–3]. These studies generally involve descriptions of methods that have been used to keep fertility below the biological maximum. One intent has been to determine the role of "folk" birth control techniques in long-term patterns of population growth. A neglected aspect of this research lies in examining the relationship between the cultural definition of when a pregnancy begins and the fertility control methods that are used. Without this perspective, birth control practices may be difficult to understand since they are removed from their cultural context.

In this report, a preliminary description of Colombian women's beliefs about when a pregnancy begins will be offered along with some hypotheses about the sociological functions of this sort of belief system. A combination of anecdotal and statistical data will be used to show how Colombian women influence the frequency and timing of births without modern contraceptives. Colombian women allow themselves to use menstrual inducing techniques early in gestation by denying that the pregnancy exists.

This material touches on a larger set of issues of interest to anthropologists and population researchers. Worldwide ethnographic literature reveals that even in societies where strong pronatalist ideologies have prevailed and extensive social and cultural supports for large families have been the rule, women have developed a variety of techniques to limit births [4–7]. These studies seldom show how women justify and practice fertility regulation in the face of a dominant ideology which requires high fertility of them. The case material presented here will show one way fertility control is practiced despite extensive negative sanctions. Women take advantage of the difficulty early in gestation of determining whether conception has occurred to end unwanted pregnancies.

The Colombian folk pharmacopeia contains a wide variety of substances that are used to both induce a late menstrual period and cause an early abortion. Since early in pregnancy it is difficult to determine which of these is the case, women can use the substances without feeling the guilt they would if they sought surgical abortion. Cali women recognize an intermediate state between "not pregnant" and "pregnant" which I will call "possibly pregnant". During this time sanctions against abortion are temporarily suspended and women with unwanted pregnancies may take active steps to restore menstruation.

THE SETTING

The data presented here were collected during 17 months of field work in Cali, Colombia's third largest city, as part of a larger study of the sociological concomitants of unwanted pregnancy and the decision to have an illegal abortion. Interviews were carried out between January and November of 1975 by the investigator or her female Colombian assistant. All but three were conducted in a Colombian government-operated health center. Supplementary material was collected through participant observation throughout the field research period.

Participants were asked to reconstruct the circumstances under which they decided the resolution of a pregnancy they said was unwanted from the time of conception. The open-ended interview guide consisted of five parts: general background (including questions on sociodemographics, family structure and household composition, a genealogy, employment and migration histories, and the extent and nature of kin interaction); attitudes and values (especially about sex roles, changing norms, and views on family size, sex, and contraception); projective stories (hypothetical incidents describing intrafamily conflicts to help articulate the range of norms for decision making in general); decision making (descriptions of the social
Table 1. The residences of a 10%, random sample of the 3910 gynecology clinic users between January 1973 and August 1975 and the unwanted pregnancy study population of 108 women:

<table>
<thead>
<tr>
<th>Residence</th>
<th>Health center sample</th>
<th>Study Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>3 barriers surrounding the health center</td>
<td>202 75.7</td>
<td>69   63.9</td>
</tr>
<tr>
<td>Other lower class or working class barriers</td>
<td>45 16.9</td>
<td>23   21.3</td>
</tr>
<tr>
<td>Middle class and above</td>
<td>20 7.5</td>
<td>16   14.8</td>
</tr>
<tr>
<td>Total</td>
<td>267 100.1</td>
<td>108 100.0</td>
</tr>
</tbody>
</table>

* Total for health center sample is less than 391 because of missing data.


contexts in which actual major and day-to-day decisions are made; unwanted pregnancy and abortion decisions (questions about preabortion/unwanted pregnancy attitudes and behavior, the abortion decision, and the postabortion experience, with special attention to the role of relatives and friends).

The study population

The study population consisted of 108 women who had had at least one pregnancy they described as unwanted at the time of conception. Data on 123 unwanted pregnancies were collected. 87 women offered information on one pregnancy, 12 provided information on each of two pregnancies and four offered data on each of three. 42 of the pregnancies were ended by surgical abortion, 44 either aborted spontaneously or were aided by the use of folk abortifacients, and 37 ended in live birth [8].

The illegality of abortion and the negative attitude with which it is viewed throughout Colombia made it initially difficult to contact women willing to discuss their own provoked abortions. Participation in the study therefore came about in one of two ways. Women who came to the health center's gynecology clinic were routinely asked during the intake procedure about the outcome of their pregnancies. Those reporting an unwanted pregnancy that terminated in either live birth or an abortion were referred by a nurse to the investigator or her assistant. If they were willing to be interviewed, they were given an appointment to return at a later date.* The second means of recruitment was through referrals from women who had already participated in the study. At the close of each interview they were asked if they knew anyone who had had an unwanted pregnancy. 72 of the study's participants (67%) were contacted in this way.

Table 1 shows that nearly two-thirds of the women who made up the study population lived in one of three barrios surrounding the health center. These barrios have a total population of approx. 65,000. The neighborhoods were created as squatter settlements on state land nearly 30 years ago although legal title to the lots has since been sold to the occupants. Employed barrio residents typically work outside the industrial sector of the economy, the women as domestics or other types of service workers, the men as manual laborers.

The women in the study ranged in age from 17 to 52 at the time of the interview (mean age 31.1, SD 8.3). Table 2 shows they were only slightly younger as a group than a 10% random sample of the 3910 women who visited the gynecology clinic of the health center between January 1973 and August 1975 (mean age 32.8, SD 10.5) (difference not statistically significant at 0.05 level). Visits were made for gynecological checkups, genitourinary disorders, and to obtain contraceptives. Table 2 also shows that there was not any statistically significant difference between the two groups with regard to the number of times they had been pregnant, their number of living children, or the number of abortions they reported.

The study population was on the whole literate with substantial urban experience. 78% reported between 1 and 5 years of formal study, about the same as the national average [9]. 64% had been born in Cali or accompanied their parents' migration while they were still young. 80% had at one time worked for wages although most discontinued wage work when they began a resident conjugal union or became pregnant.

Contraceptive use

Despite extensive exposure to Western scientific or "cosmopolitan" medicine [10] through health center visits and ready access to local pharmacies, "folk" beliefs about pregnancy, abortion, and birth continue to be important in fertility-related behavior. Women are generally unfamiliar with cosmopolitan ideas about when conception is likely and they usually cite as the interval the 3-7 days following menstruation. Many still follow modified versions of the traditional postpartum quarantine period (dieta) as they restrict their intake of certain foods and limit some of their
activities during the 40 days following a birth. In the care and treatment of newborns, traditional practices are especially evident. Most mothers will try to limit the frequency with which they take their infants outside because the fresh air, especially at night, is thought to be dangerous to an infant’s health. Baby’s bracelets to ward off the evil eye are a common sight. And despite health center education efforts concerning appropriate nutrition and attire for newborns in subtropical climates, mothers frequently feed their infants sugar water (agua panela) and clothe them in hats, mittens, and booties to protect them from drafts.

Folk beliefs remain extremely important when handling an unwanted pregnancy, in part because they allow women more possibilities for fertility control than would otherwise be permitted. Although preconception birth control including pills, intrauterine devices, and vaginal suppositories are available through pharmacies and local health centers, access is not always simple and the technology remains far from perfect. Most of the women who made up the study population, for example, were experienced with the contraceptives commonly marketed in Cali. More than 60% (64/106) had at one time tried at least one contraceptive method, most frequently pills, the IUD, or vaginal suppositories. Their experiences with these methods, however, led many women to abandon them. At the time of the interview, just 42% of those who could become pregnant were using a contraceptive method.

The decline in contraceptive use may in fact be related to the pregnancy histories of the women in the study group. Although their use did not differ statistically from the health center population (x^2 = 0.64 difference, not statistically significant at 0.05 level). These differences are seen in Table 3. In half the unwanted pregnancies (60/120) the women said they had been using some form of contraceptive when the pregnancy occurred. Most (88%) attributed the pregnancy to failure of the contraceptive method. Failures from pills and IUDs were held responsible for half the unwanted pregnancies attributed to method failure (27/53). The remainder most often followed the use of rhythm, suppositories, or coitus interruptus. When those who were not using contraceptives were asked their reasons, some said they did not trust their efficacy since that was how they had become pregnant the previous time. Others reported discomfort due to side effects caused by the method including headaches, circulatory problems, nervousness, weight gain, and skin discoloration. Still others expressed concern about health problems the method could cause, most commonly fear of cancer. This decline in use of conventional birth control meant many were left with what they saw as few contraceptive alternatives. Others who had had no personal experience with the methods also voiced fears of harm that could result from their use citing the experiences of friends and relatives as a guide.

While many of the women in the study group found conventional birth control unsatisfactory, most did not view abortion as a contraceptive alternative despite its frequency of use throughout Colombia [13,14]. The Catholic Church’s strong opposition to abortion has a number of effects: Colombia continues to have one of the world’s most restrictive abortion laws since it is prohibited under all conditions [15]. This means that obtaining an abortion can be both legally risky and physically dangerous unless one is especially wealthy and can afford the cost of a safe, illegal procedure. Women who seek abortion often do so in violation of their own religious beliefs and, if discovered, the risk of social censure is great. Over 90% of the women in the study group (99/108) were practicing Catholics and half of these (49/99) attended church at least once every 2 weeks.

Many are also afraid to willfully end a pregnancy. Illegal abortion is a popular topic for sensationalistic media attention in Cali. Indepth accounts of women who have died because of abortion complications and news of the discovery by police of clandestine abortion “rings” are regularly presented in great detail and elaborated in daily conversations. During 1974 abortion had a particularly prominent place in local papers and neighborhood gossip due to the lengthy trial of a lay midwife who was convicted and jailed following the death of a young woman on whom an abortion had been performed.

Women feared seeking an abortion because of the
Table 3. Contraceptive use of a 10\(^{2}\) random sample of the 3910 gynecology clinic users between January 1973 and August 1975 and the unwanted pregnancy study population of 108 women*.  

<table>
<thead>
<tr>
<th>Contraceptive use(\dagger)</th>
<th>Health center sample</th>
<th>Study Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Yes</td>
<td>155</td>
<td>46.1</td>
</tr>
<tr>
<td>No</td>
<td>181</td>
<td>53.9</td>
</tr>
<tr>
<td>Total</td>
<td>336</td>
<td>100.0</td>
</tr>
</tbody>
</table>

* Totals are less than 391 for health center sample and 108 for study population because of missing data.
\(\dagger\) Includes only oral contraceptives or intrauterine devices.

harm that might come to them, but they also feared the reactions of those who might discover they had had an abortion. Many Calefas are opposed to abortion because of the health risk involved. Violation of civil or canonical law is not their primary objection. Risking one’s life and subjecting one’s children to possible motherlessness is considered the more serious crime. When those in the Cali study population were asked “Why do you think women are afraid to talk with doctors about a provoked abortion?” nearly half (21/46) said it was because they feared they would be punished or reprimanded (tenor de castigo). When those who reported having had an induced abortion were asked their reasons for not considering another one, more than 40% (19/46) said they were afraid to undergo the procedure another time while less than 30% (13/46) spoke of remorse or said they believed they had done something wrong.

THREE STATES OF PREGNANCY:

Interviewer: At first did you think of an abortion?
Livia: I tried, struggled to do something, to find some remedies because I didn’t want to have any more children. . . . Certainly I didn’t do anything bad, no bad things. I simply took some beverages (bebidas) to see if my period would come.

Since they do not find conventional contraceptives effective or acceptable nor can they easily resort to induced abortion, Colombian women must regulate fertility in other ways. One way is to utilize the ambiguity about when a pregnancy begins. Since early in a pregnancy it is difficult to confirm its existence,

Calefas can deny an unwanted pregnancy by considering it a simple menstrual delay. Herbal and other remedies may then be taken to alleviate this physiological disorder.

Calefas recognize an intermediate state between “not pregnant” and “pregnant” in the developmental course of a normal pregnancy. Women call this an arrazo or menstrual delay. Because it may or may not be coterminal with early pregnancy, here it will be called “possibly pregnant”. The existence of a possibly pregnant state provides women with an important conceptual tool. Once a pregnancy is confirmed, women generally regard it as irreversible. But during the possibly pregnant period, the uncertainty of pregnancy allows women to tamper with their menstrual cycles in an attempt to restore menstrual function. This three-state notion of pregnancy allowed Colombian women in the past to regulate fertility despite the pronatalist beliefs that were the rule. Today it is probably even more important as modern Colombian women strive to control their frequency and timing of childbearing in a poor, increasingly urban society.

The actual frequency of both menstrual irregularity and miscarriage give women concrete evidence for recognizing a possibly pregnant period. 35% of the women in the health center random sample (135/391) reported at least one abortion of either the spontaneous or induced variety. Folk beliefs about the gestation cycle encourage the ambiguity. For example, the length of time it takes a fetus to develop into a recognizable mass is said to vary according to the sex of the child. Males are “formed” immediately following conception, that is, they start to develop right away. The “formation” of a female fetus, however, does not occur until the fourth month of gestation. Female fetuses remain in an unconcealed tissue mass during the early months of pregnancy. There is, then, an ambiguous period when a woman may be either pregnant with a girl or experiencing menstrual delay and not actually pregnant. Early in pregnancy, women know of no sure way to make this distinction.

These beliefs may help explain some of the easy and painless early pregnancy terminations that 23% of those in the study group who had abortions reported. A woman may, for example, miss three consecutive menstrual periods and not feel very well for several mornings in succession. She may also gain some weight while she worries that she may be pregnant. When her period finally does arrive, if she finds no

* The remainder referred to the shame they felt for their behavior (pena) (13/46, 28%), gave ambiguous responses (3/46, 6%), or said they simply did not know (9/46, 20%). Open-ended questions such as these were coded into response categories after the interviews had been completed.
\(\dagger\) This material is presented as a preliminary framework. It is an attempt to describe mental states that in reality are not discrete and therefore not easily expressed in terms of a neat typology. Some areas for further investigation are outlined in the conclusion.
\(\ddagger\) Potts and his associates [16] report that “it is expected in a country that outlaws abortion under all circumstances that women will report induced abortions as spontaneous if they are reported at all” (p. 474).
The management of early pregnancy

Table 4. Modified Likert scale of the circumstances in which a woman may seek an induced abortion**

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>%</th>
<th>Yes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If the woman simply does not want</td>
<td>49</td>
<td>62.0</td>
<td>30</td>
<td>38.0</td>
</tr>
<tr>
<td>a child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If the woman has no husband</td>
<td>53</td>
<td>57.6</td>
<td>39</td>
<td>42.4</td>
</tr>
<tr>
<td>In cases of rape</td>
<td>49</td>
<td>53.8</td>
<td>42</td>
<td>46.2</td>
</tr>
<tr>
<td>If the family is too poor to have</td>
<td>44</td>
<td>46.3</td>
<td>51</td>
<td>53.7</td>
</tr>
<tr>
<td>the child</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If the pregnancy would endanger the</td>
<td>33</td>
<td>34.0</td>
<td>64</td>
<td>66.0</td>
</tr>
<tr>
<td>woman's life</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If the child might be born with a</td>
<td>28</td>
<td>31.5</td>
<td>61</td>
<td>68.5</td>
</tr>
<tr>
<td>defect</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Data were missing when totals do not equal 108.
+ These figures may indicate greater approval of abortion than may be true of the general population since they include responses of women who underwent induced abortions or in other ways actively tried to end unwanted pregnancies.

tissue mass as part of the menstrual flow, she concludes that it was a girl she had been carrying although she may never have been pregnant to begin with.

Many instances of apparent menstrual irregularity are therefore classified as spontaneous abortions of female fetuses although the reason for this is not completely clear. It is possible that Caleñas inflate the actual incidence of miscarriage to more easily disguise early provoked abortions. By sustaining the idea that miscarriage is very common, less attention is drawn to those who are willfully induced.

Miscarriage following the use of folk abortion remedies was also reported to be common. The frequency with which success is attributed to the use of early abortion remedies, however, probably exaggerates to some degree their effectiveness [17]. 23 of 44 pregnancies in the study (52%) were reported terminated following the use of one or several folk abortion methods. When pregnancies that were confirmed by a pregnancy test are compared with pregnancies not verified in this way, a different pattern emerges. While 10 of 15 unconfirmed pregnancies (67%) ended after use of folk abortifacients alone, 8 of 29 confirmed pregnancies (28%) were so terminated. The relationship between use of folk remedies and pregnancy outcome is additionally difficult to determine since the confirmed pregnancies which ended after use of folk abortion methods may have been unstable and may have aborted in any event.

"Aborting" after experiencing early pregnancy symptoms such as menstrual delay or nausea is therefore common and may be related to the anxiety generated by the fear of an unwanted pregnancy. Women who have reached desired family size or who for other reasons do not wish to be pregnant are apt to be especially susceptible to pregnancy anxiety, as was the case of the women in the Cali study population. This fear may have made them particularly sensitive to physiological changes which might portend a pregnancy.

State 1: Not pregnant

Persistence of normal menstruation is a primary criterion for locating oneself in this state. Caleñas carefully monitor their menstrual cycles and are quick to recognize irregularities. Although, for instance, women who visited the health center were often unsure of such matters of fact as the birth dates of their children or their home addresses, they could easily report the date of their last menstrual period, state the typical number of days of flow, and describe any deviations from the norm. Some Cali women use a calendar to monitor their cycle or simply count the number of days from one menstrual period to the next. Others rely on physical signs such as skin changes or discomfort or itching in the pubic region.

One woman reported a system she had developed herself: "I wait for the water and electric bill to come. Then I know my period is due." Successful postconceptive fertility control through use of folk methods is thought possible and most effective only during early menstrual irregularity. Vigilance concerning menstrual function is therefore important.

State 2: Possibly pregnant

Some of the evidence suggesting the existence of an intermediate "possibly pregnant!" state was seen during conversations about early pregnancy. Elysee Aurelia, for example, was concerned about her comadre's delayed menstrual period since she already had an
The amount of risk a woman is willing to take is another factor that is considered, since some remedies such as quinine are known to produce an abortion but may also cause serious illness or death [16]. Finally there is the woman's own belief system and how comfortable she feels making the interventional attempts. A physician explained.

It's a common practice fertility control during the early pregnancy period. A large pharmacopeia of birth controlling plants and herbs exists. Parsley, lemon, rue, white rhubarb, spiderwort, and cinnamon are among those most commonly noted. These plants and herbs have long been recognized in Europe and Latin America for their emmenagogic effects. Oil extracted from the seeds of parsley is said to promote blood circulation in the pelvic region and to induce a menstruation flow [18–20]. Both lemon and rue contain rutin which appears to have a vasoconstrictor effect on the smooth muscles of the uterus which can lead to uterine contractions [21]. Cinnamon contains safrole in the essential oils which may stimulate menstruation and uterine hemorrhaging [22]. However while abundant reports of the use of these and other remedies have been found throughout the folk botanical literature, their effectiveness remains largely unquantified, precluding scientists who may discount them because they cannot account for the causal mechanism involved in menstrual induction.

Table 5 shows that although herbal methods are the most popular, there are also many nonherbal pregnancy control remedies. The most common ones include injections of oxytocin, a pituitary hormone that stimulates uterine contractions, progesterone, a steroid used in the treatment of menstrual disorders, or estrogen, and pills that ranged in composition from contraceptive pills to quinine to some of unknown name or composition.

The choice of a remedy depends on a number of factors. Some herbs are said to be effective only during specific times in a pregnancy. "Spiderwort will work fine for you," a midwife said, "but not after the first month has passed." A second factor is the woman's physiology. Heliana reported.

They say if a person is strong the remedies won't work unless you use several of them: pills and drinks and injections. I used them all but none of them worked for me, nor for my sister either. But if your constitution is not too strong they will bring your period back.
variable period of time. Objectively, the physical signs of pregnancy become less unmistakable as the pregnancy proceeds. When her friend was 5 months pregnant, for example, she asked Estella Astrid for help locating an abortionist. Estella Astrid refused. "Five months, that's a lot already, that's a fetus already. She just had to accept it." Acceptance of pregnancy may instead follow repeated failure of folk abortificants. As Aura Angelea explained, "I was going to have [the baby] because there just weren't any more remedies left."

Some women enter the pregnant state immediately upon missing one menstrual period or recognizing other physical changes. For others the failure of just one abortificant provides sufficient evidence. "I drank parsley tea three mornings in a row. Nothing happened so I knew I had to accept it," Lucia said. Flora reported, "I went to a midwife and she gave me an injection. It didn't work but I was afraid to do anything more after that." The more difficulty a woman has accepting a pregnancy, the more apt she is to prolong the possibly pregant period. Entry into the pregnant state indicates that a woman has acknowledged the irreversibility of the pregnancy. She stops her use of folk remedies and makes another assessment of the extent to which the pregnancy is not wanted. At this point, continuation of the pregnancy has less to do with a woman's feelings about having a baby than with her evaluation of the social context into which the child will be born [38]. The decision to interrupt an actual pregnancy is a more difficult one. Surgical intervention requires a specialist such as a nurse, midwife, or doctor to perform the procedure. The experience is dangerous, frightening, expensive, illegal, and socially disapproved. When those in the study group who had had surgical abortions were asked if they would repeat the experience, only one woman (1/37 or 3%) said she might. Similarly, only 5% (2/37) reported more than one surgically provoked abortion.

SUGGESTIONS FOR FURTHER INVESTIGATION

This material has been offered as a preliminary description of Colombian women's concepts of pregnancy and abortion. Several areas require additional investigation. More material on the perception of pregnancy is needed. What are the physiological and psychological bases for the suspicion of pregnancy? How do women who use pruebas view their mode of action? Are they used in any way to their understanding of the modes of action of conventional contraceptives? How is the transition from possibly pregnant to pregnant signaled? What factors influence variation in the length of the possibly pregnant period? Gestation beliefs should also be explored in more detail, including the relationship between gestation beliefs and the type of fertility intervention. More data are also needed on the social context in which beliefs about pregnancy and abortion are generated. How are fertility control beliefs and practices transmitted? How does a woman who suspects she might be pregnant or is suffering from menstrual delay decide who to ask about the type of remedy to try? To what extent must she hide her behavior from others? To what extent can she count on them to assist her in her fertility controlling attempts? Who are the most reliable sources of assistance? And finally, additional data are needed on the demographic effects of the three state notion of pregnancy, with special attention to analysis of the effects of the active ingredients in the plants and herbs thought to have menstrual inducing effects. Since only some of the folk abortificants will be found effective, an evaluation of the
circumstances under which women use both effective and ineffective remedies is also required.

Acknowledgements—Field work in 1974–75 was supported by N.I.G.M.S. training grant No. GM 1224 to the Department of Anthropology, University of California, Berkeley and in 1975–76 by a predoctoral fellowship from the International Center for Medical Research, Tulane University School of Medicine, New Orleans-Universidad del Valle, Chibnik, Carol McClain and Bernard Gritz de Monteliano for very helpful comments on an earlier draft of this paper and Dr Melba Franky de Borrero and the staff and patients of the neighborhood health center for their gracious cooperation. A version of this paper was presented to the joint annual meeting of the Society for Applied Anthropology-Southwest Anthropology Association, San Diego, California. 1976.

REFERENCES
13. Corren P. G., Llanos G. and Agilera B. Estudio sobre causas de muerte en Cali (Study on the causes of death in Cali). Departamentos de Medicina Preventiva y Patologia, Facultad de Medicina, Universidad del Valle, Cali, Colombia (no date).