Access Barriers and the Use of Prenatal Care by Low-Income, Inner-City Women

Cynthia A. Loveland Cook, Kimberly L. Selig, Barbara J. Wedge, and Erika A. Gohn-Baube

An important public health agenda in the United States is improving access to prenatal care, particularly for low-income women. The study discussed in this article was designed to determine which social, environmental, and psychological barriers are most likely to interfere with the early and regular use of prenatal health services. Low-income adult women hospitalized on the postpartum unit of a large urban medical center were interviewed about the barriers they experienced gaining access to prenatal care. Access barriers involving family and friends significantly increased the odds of receiving inadequate care, particularly not wanting anyone to know about the pregnancy and not having help getting to clinic appointments. Other important barriers included those related to the health care system and intrapersonal issues. Social workers are in an ideal position to help women eliminate barriers to access to prenatal care through clinical expertise in assessment, advocacy, outreach, and case management.

**Key words:** access barriers; prenatal care; social work practice; women's health

Despite advances in medical technology and the delivery of health services, nearly 30,000 infants in this country die because of low birthweight (LBW). The LBW infants who do live have a high probability of suffering from chronic and costly disabilities over the course of their lives (Lewitt, Baker, Corman, & Shiono, 1995). This unnecessary loss of human life and potential is even more pronounced for the children of low-income women. For poor people, infant mortality and morbidity rates often approximate those of Third World countries (Shiono et al., 1995).

Failure to receive early and regular prenatal care has long been associated with poor reproductive outcomes, particularly low birthweight, neonatal death, and postpartum complications (Gilbert & Harmon, 1986; Institute of Medicine, 1988; Pierson et al., 1994). Early and regular prenatal care optimizes maternal–child health because it facilitates health promotion and illness prevention, as well as the early diagnosis and treatment of medical problems. Despite the importance of prenatal care, the rate of inadequate care in this country exceeds acceptable limits, particularly among low-income
African American women. Compared with their white counterparts, African American women are more likely to initiate prenatal care after their first trimester, have fewer prenatal clinic visits, or receive no prenatal care at all (Brown, 1989; LaVeist, Keith, & Guitterrez, 1995). In 1991 the neonatal mortality rate for African Americans was 130 percent higher than for white people (Singh & Yu, 1995). In some low-income African American communities, infant mortality rates surpass the national average by nearly 20 percent (Chicago Department of Health, 1990).

An integral part of this country’s public health agenda is to improve access to prenatal care, particularly for economically disadvantaged women (Public Health Service, 1990). Large-scale efforts, such as the expansion of Medicaid programs, have focused almost exclusively on the elimination of financial barriers to care. Unfortunately, there is evidence that the availability of health insurance and a regular source of care does not guarantee that pregnant women will receive adequate prenatal care (Krieger, Connell, & LoGerfo, 1992; Moore & Hepworth, 1994; Oberg, Lia-Hoagberg, Hodkinson, Skovholt, & Vanman, 1990; Pierson et al., 1994). This finding suggests that other contributing factors must be identified in efforts to develop more effective programs and services that facilitate the early and regular use of prenatal care.

Traditionally, the impact of social and environmental barriers on access to prenatal care has been overlooked by the health care delivery system (Krieger et al., 1992). Important, yet neglected, barriers include substandard living conditions, limited support from family and friends (Norbeck & Anderson, 1989), stressful life events (Williams, Williams, Griswold, & Holmes, 1975), language barriers, lack of housing, and insufficient transportation (Goldenberg, Patterson, & Freese, 1992). The health care system itself also can pose barriers, including crowded clinics, scheduling difficulties (for example, limited availability of appointments, frequent busy signals when telephoning clinic), long waiting times, and interaction with insensitive health care professionals (Aved, Irwin, Cummings, & Findeisen, 1993; Brown, 1989; St. John & Winston, 1989). Finally, personal problems and psychological distress, such as depression, anxiety, and ambivalence about the pregnancy, can influence clinic attendance (Harvey & Faber, 1993; Kalmuss & Fennelly, 1990; York, Williams, & Munro, 1993).

To date, most research has described common barriers to obtaining prenatal care. Little has focused on the relationship of access barriers to adequacy of prenatal care, despite findings that warrant further investigation. For example, there is evidence that battered pregnant women tend to delay the initiation of prenatal care (Campbell, Poland, Waller, & Ager, 1992). Sable and colleagues (1990) reported that women who receive inadequate prenatal care are 4.5 times more likely to have difficulty finding a physician who accepts Medicaid and 2.5 times more likely to have difficulty getting an appointment for prenatal care. Lack of trust in the health care system, as well as negative feelings about the quality of medical care, have been cited as obstacles to obtaining care (Goldenberg et al., 1992; Schwarz, 1989). In a study conducted by Leatherman and colleagues (1990), women were less likely to receive adequate prenatal care when they did not feel prenatal care was necessary, experienced no problems in earlier pregnancies, and felt good in their current pregnancy.

A number of access barriers have been associated with poor birth outcomes. Williams and colleagues (1975) found that women who experienced major life stressors during and before their pregnancy were more likely to deliver prematurely than those who experienced fewer stressors. Inadequate social support has been associated with less optimal birth outcomes, including the delivery of low birthweight infants (Norbeck & Anderson, 1989; Seguin, Potvin, St.-Denis, & Loiselle, 1995). Other studies have documented poor birth outcomes following prenatal depression (Steer, Scholl, Hediger, & Fisher, 1992; Wadhwa, Sandan, Paro, Dunkel-Schetter, & Garite, 1993). Steer and colleagues found that severely depressed women were three times more likely to deliver babies that were LBW, preterm, or small-for-gestational age.

It is critical to help pregnant women eliminate access barriers and facilitate their ability to
obtain quality prenatal care, particularly low-income women who are most vulnerable to health-threatening stressors in their daily lives (Hughes & Simpson, 1995). Social workers possess the ideal combination of skills and experience to help these women overcome access barriers through clinical, programmatic, and policy level interventions. Not only is the social work profession philosophically committed to equality in the obtaining of resources, but also psychosocial and environmental interventions are a major focus of social work practice (Hepworth & Larsen, 1993). To develop more effective intervention protocols, however, an in-depth understanding of the barriers that pregnant women experience in seeking prenatal care is needed.

The major purpose of the study discussed in this article was to identify those access barriers that place women at most risk of receiving inadequate prenatal care. Earlier research has described sociodemographic and psychological barriers with little attention paid to obstacles caused by the health care delivery system and social environment (Blankson, Goldenberg, & Keith, 1994). Even less emphasis has been placed on identifying which access barriers are most likely to interfere with adequate prenatal care. In this study, a comprehensive range of social, environmental, and psychological access barriers was investigated along with identification of those barriers most likely to interfere with adequate prenatal care. The research questions in this study were

- What are the most frequent barriers that low-income pregnant women experience in gaining access to prenatal care?
- What barriers do low-income pregnant women consider most difficult in their attempts to obtain prenatal care?
- What access barriers place women at the most risk of receiving inadequate prenatal care, controlling for prenatal risk factors?

**Methods**

**Respondents**

Using a cross-sectional descriptive research design, a convenience sample of 115 low-income adult women hospitalized on the postpartum unit of a large university-affiliated, urban medical center were interviewed about the barriers they experienced in gaining access to prenatal care. The investigation focused on low-income women because the barriers experienced by this population can be formidable with the daily stresses of survival overshadowing the perceived need for prenatal care. Furthermore, interventions designed to facilitate adequate prenatal care in this population can result in the most dramatic improvement in outcomes (American Hospital Association, 1993; Oberg et al., 1990). A trained clinical interviewer approached 125 women who had delivered within the preceding 24 to 48 hours. Ninety-two percent (N = 115) of these women agreed to participate in the study.

The 115 respondents in this study received care in different types of prenatal care clinics. More than two-thirds (68.7 percent) received care in hospital-affiliated clinics that provided comprehensive medical services and a host of other resources, such as nutritional counseling, social services, prenatal and postpartum education, lactation consultation and, when needed, a full range of medical, surgical, and pediatric services. Twenty-seven percent attended free-standing community clinics that provided similar services. Nearly all respondents were recipients of Medicaid (96.3 percent) with full health coverage for their obstetrical care. The respondents were predominantly African American (85.2 percent), unmarried (91.1 percent) and had at least one other child (68.4 percent). Their mean age was 23.9 years (SD = 5.3). More than one-half of the mothers (59.8 percent, n = 67) experienced at least one medical risk factor during their pregnancy. The most frequent were preterm labor in an earlier pregnancy (21.3 percent), LBW infant in an earlier pregnancy (17.0 percent), preterm labor in the current pregnancy (16.1 percent), another pregnancy within the past year (15.2 percent), and hypertension (8.0 percent). Drug, alcohol, or nicotine use was documented in the medical records for 7.5 percent, 3.0 percent, and 12.5 percent of the respondents, respectively.

**Measures**

Because there are no standardized instruments that comprehensively measure social,
environmental, and psychosocial barriers, the investigators developed the 24-item Access Barriers to Care Index (ABCI). Access barriers were operationally defined as circumstances or conditions that interfere with the use of prenatal health services. The questionnaire items were based on an extensive review of the literature, as well as feedback from both clinical staff and patients (see Table 1 for item list). Examples of access barriers include lack of transportation, little trust in the health care system, personal problems, long waiting times in the clinic, depression, embarrassment about pregnancy, and child care problems. Using a five-point Likert-type scale that ranged from 1 = not at all difficult to 5 = extremely difficult, mothers rated the degree that a given situation posed a barrier to prenatal care. Content validity of the ABCI was confirmed through a review by clinical experts. The instrument’s alpha coefficient for internal consistency reliability is .85 with these respondents.

Data on sociodemographic characteristics, such as age, marital status, number of children, and race, were obtained from medical records. These records also were used to collect data on maternal risk factors, such as high blood pressure, diabetes, multiple fetuses, smoking, sickle cell anemia, previous fetal death, and maternal age under 17 or over 40 years (Gilbert & Harmon, 1986; Institute of Medicine, 1988). The coding of medical records was conducted

<table>
<thead>
<tr>
<th>Type of Barrier</th>
<th>Difficulty</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Embarrassed about pregnancy</td>
<td>3.7</td>
<td>1.4</td>
</tr>
<tr>
<td>Heard bad things about clinic</td>
<td>3.5</td>
<td>2.1</td>
</tr>
<tr>
<td>Didn’t want people to know was pregnant</td>
<td>3.5</td>
<td>1.3</td>
</tr>
<tr>
<td>Didn’t like care received at clinic</td>
<td>3.4</td>
<td>1.5</td>
</tr>
<tr>
<td>Didn’t trust health care system</td>
<td>3.3</td>
<td>1.6</td>
</tr>
<tr>
<td>Personal problems of family or friends</td>
<td>3.3</td>
<td>1.2</td>
</tr>
<tr>
<td>Clinic had no evening or weekend hours</td>
<td>3.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Transportation</td>
<td>3.1</td>
<td>1.2</td>
</tr>
<tr>
<td>Not sure wanted this baby</td>
<td>3.1</td>
<td>1.3</td>
</tr>
<tr>
<td>Didn’t think prenatal care was important</td>
<td>3.0</td>
<td>1.4</td>
</tr>
<tr>
<td>People in personal life wouldn’t help get to clinic</td>
<td>3.0</td>
<td>1.1</td>
</tr>
<tr>
<td>Cost of transportation</td>
<td>3.0</td>
<td>1.2</td>
</tr>
<tr>
<td>No child care</td>
<td>2.9</td>
<td>1.1</td>
</tr>
<tr>
<td>Long waiting time at clinic</td>
<td>2.9</td>
<td>1.2</td>
</tr>
<tr>
<td>Depressed or unhappy about pregnancy</td>
<td>2.8</td>
<td>1.0</td>
</tr>
<tr>
<td>Afraid something wrong with baby</td>
<td>2.8</td>
<td>1.1</td>
</tr>
<tr>
<td>Own personal problems</td>
<td>2.8</td>
<td>1.1</td>
</tr>
<tr>
<td>Clinic too crowded</td>
<td>2.8</td>
<td>1.2</td>
</tr>
<tr>
<td>Own alcohol or drug use</td>
<td>2.8</td>
<td>0.5</td>
</tr>
<tr>
<td>Too tired</td>
<td>2.7</td>
<td>1.1</td>
</tr>
<tr>
<td>Couldn’t schedule timely appointments</td>
<td>2.7</td>
<td>0.9</td>
</tr>
<tr>
<td>Couldn’t leave work or school</td>
<td>2.6</td>
<td>1.1</td>
</tr>
<tr>
<td>Clinic too far away</td>
<td>2.5</td>
<td>1.0</td>
</tr>
<tr>
<td>People in personal life stopped from going to clinic</td>
<td>2.4</td>
<td>0.9</td>
</tr>
<tr>
<td>Didn’t like going to clinic</td>
<td>2.3</td>
<td>0.5</td>
</tr>
<tr>
<td>Didn’t need care because felt fine</td>
<td>2.3</td>
<td>0.5</td>
</tr>
<tr>
<td>No place to live</td>
<td>1.2</td>
<td>0.8</td>
</tr>
<tr>
<td>Didn’t want to tell clinic staff that wasn’t taking medications</td>
<td>1.1</td>
<td>0.6</td>
</tr>
</tbody>
</table>

*Extent that barrier caused difficulty in obtaining prenatal care with scale ranging from 2 = slightly difficult to 5 = extremely difficult.
by a research associate trained in the coding criteria for data extraction.

The Adequacy of Prenatal Care Utilization Index (APNCU) (Kotelchuck, 1994a) was used to develop a summary index for adequacy of prenatal care. Compared with other measures of adequacy, the APNCU provides a more accurate and comprehensive assessment by using both the initiation and use of services, adjusting for gestational age. Other measures tend to heavily weigh initiation of care or subsequent use and inaccurately assess use for preterm and postterm pregnancies (Kotelchuck, 1994b). In the APNCU, prenatal care is considered inadequate if visits began after the fourth month of pregnancy or fewer than one-half of the American College of Obstetrics and Gynecology recommended visits were made (American College of Obstetricians and Gynecologists, 1995).

Results

The analyses used descriptive statistics to address the first two research questions on the frequency and difficulty of access barriers. The remaining analyses used a multiple logistic regression model to determine which barriers placed women at most risk of receiving inadequate prenatal care.

Most Frequent Access Barriers to Prenatal Care

The mean number of access barriers reported by mothers in this study was 4.5 (SD=4.4) with three-fourths of the sample experiencing at least one barrier (78.3 percent, n = 90). The most frequent access barriers, although not necessarily the most difficult, were depression or unhappiness about the pregnancy (44.3 percent), long waiting times in the clinic (35.1 percent), too tired (29.6 percent), transportation (26.1 percent), and clinic too crowded (24.6 percent) (Table 1). On average, the respondents considered these barriers to be moderately difficult.

Most Difficult Barriers to Obtaining Prenatal Care

The most difficult access barriers were feeling embarrassed about one’s pregnancy, hearing bad things about the prenatal clinic, not wanting family or friends to know about the pregnancy, disliking the kind of care received at the clinic, lacking trust in the health care system, being affected by the personal problems of family or friends, and lack of evening or weekend clinic hours. Of the access barriers rated most severe, lack of evening or weekend clinic hours was cited most often (21.7 percent, n = 25) followed by personal problems of family or friends (16.5 percent, n = 19), and not wanting people to know about the pregnancy (10.4 percent, n = 12).

Access Barriers as Risk Factors in Inadequate Prenatal Care

The analyses that addressed the third research question on the relationship of access barriers to adequacy of prenatal care required several steps. First, the summary index for adequacy of prenatal care was developed using Kotelchuck’s APNCU. Second, those intervening variables that might influence adequacy of prenatal care, other than access barriers, were identified. Last, the odds that different access barriers placed women at risk of inadequate prenatal care were determined using multiple logistic regression.

Adequacy of Prenatal Care. Forty-three percent (n = 40) of the mothers in this study received inadequate prenatal care. Women who received inadequate prenatal care reported a mean of 5.7 (SD = 4.8) access barriers compared with only 2.9 (SD = 3.1) for women who received adequate care (t = 3.2, p < .002). A similar trend was found when comparing the mean level of difficulty that barriers posed in obtaining prenatal care. The mean level of difficulty for women who received inadequate prenatal care was 1.4 (SD = 0.4), whereas it was only 1.2 (SD = 0.2) for those who received adequate care (t = 3.3, p < .002).

Comparative analyses were conducted to determine which sociodemographic characteristics and prenatal risk factors were significantly related to access barriers. Chi-square tests of independence or Student t tests were used, depending on the categorical or continuous nature of the variables under investigation. Conducting multiple statistical tests increase the probability of Type I errors in which one incorrectly concludes that two variables are significantly related. Bonferroni adjustments were
used in these analyses to correct for the possibility of Type I errors (Hochberg, 1988).

The findings demonstrated that sociodemographic characteristics were not significantly associated with either the type, number, or difficulty of access barriers reported by women in this study. However, women with one or more prenatal risk factors reported a mean of 5.5 access barriers, whereas women without any risk factors averaged only 2.7 (t(102) = -3.65, p < .001). The average difficulty of these access barriers was significantly higher for women with prenatal risk factors than for their counterparts without any risk factors (M = 1.34 and 1.17; respectively, df = 74 and 39, p < .01). The presence of prenatal risk factors was not significantly associated with different access barriers.

Separate analyses were then conducted for two types of prenatal risk factors (psychosocial and medical) to determine any differential effects. Although the presence of psychosocial risk factors was not significantly related to the mean number of access barriers, women with medical risk factors did report significantly more barriers than those without medical risk factors (M = 5.4 and 3.4, respectively; df = 44 and 69, p < .05). Neither psychosocial nor medical risk factors were significantly associated with the difficulty posed by access barriers. There also were no significant relationships with different types of barriers.

**Relationship of Access Barriers to Inadequate Prenatal Care.** Odds ratios were calculated to estimate the degree that different access barriers increase the probability of receiving inadequate prenatal care. A multiple logistic regression model was used to calculate the odds ratios, because it allowed adjustment for covariates, while estimating odds ratios from cross-sectional data and dichotomous dependent variables (Kleinbaum, 1994). Because the presence of prenatal risk factors in this study (for example, diabetes, previous premature delivery or LBW infants, or hypertension) can influence receipt of prenatal care, its effects were removed from the regression model by adding the presence of prenatal risk factors (0 = no, 1 = yes) as a covariate. Sociodemographic factors were not added as covariates because there were no significant differences between women who did and did not receive adequate prenatal care.

Chi-square tests of independence were then used to determine which access barriers were significantly associated with adequacy of care. Eleven barriers found to be significant were then entered into the multiple logistic regression model. Barriers that involved family or friends greatly increased the odds of receiving inadequate care (Table 2). For example, women who did not want family or friends to know about their pregnancy were nearly five times more likely to receive inadequate prenatal care than women without this concern. Likewise, women who received little or no help from family or friends in getting to the clinic had nearly three times the odds of receiving inadequate care. Barriers of an interpersonal nature, such as personal problems and fatigue, also increased the likelihood of receiving inadequate care. Women with personal problems were nearly four times more likely to receive inadequate prenatal care, and those reporting fatigue were two times more likely to get inadequate care. Women who felt the clinic was too far away had nearly two times the odds of receiving inadequate care than those women who did not report this as a barrier.

**Discussion**

The most frequently cited access barrier, although not considered the most difficult, was feeling depressed or unhappy about one's pregnancy. The presence of prenatal symptoms of depression has been well documented in the literature, particularly among economically disadvantaged women (Hall, Williams, & Greenberg, 1985; Oberg et al., 1990). Living conditions associated with poverty, such as lack of money for basic needs, inadequate housing, stressful life events, and limited help from other people, have been significantly associated with prenatal depression (Seguin et al., 1995). Clinic attendance can be a formidable task for pregnant women who experience some of the symptoms associated with depression, such as lack of energy, ambivalence, and social withdrawal. Because this study used single-item questions to identify access barriers, identification of the DSM-IV psychiatric diagnosis, major depressive...
Table 2
Risk of Inadequate Prenatal Care Because of Access Barriers

<table>
<thead>
<tr>
<th>Access Barrier</th>
<th>Inadequate Prenatal Care (N = 40)</th>
<th>Adequate Prenatal Care (N = 53)</th>
<th>Adjusted Odds Ratio</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Depressed or unhappy about pregnancy</td>
<td>55.0</td>
<td>22</td>
<td>37.7</td>
<td>20</td>
</tr>
<tr>
<td>Too tired</td>
<td>37.5</td>
<td>15</td>
<td>17.0</td>
<td>9</td>
</tr>
<tr>
<td>Too many personal problems took priority</td>
<td>32.5</td>
<td>13</td>
<td>9.4</td>
<td>5</td>
</tr>
<tr>
<td>Clinic too crowded</td>
<td>30.0</td>
<td>12</td>
<td>15.4</td>
<td>8</td>
</tr>
<tr>
<td>Clinic too far away</td>
<td>27.5</td>
<td>11</td>
<td>11.3</td>
<td>6</td>
</tr>
<tr>
<td>Didn’t know if wanted baby</td>
<td>25.0</td>
<td>10</td>
<td>11.3</td>
<td>6</td>
</tr>
<tr>
<td>Didn’t want family or friends to know was pregnant</td>
<td>22.5</td>
<td>9</td>
<td>1.9</td>
<td>1</td>
</tr>
<tr>
<td>People in personal life wouldn’t help get to clinic</td>
<td>20.0</td>
<td>8</td>
<td>3.8</td>
<td>2</td>
</tr>
<tr>
<td>No place to live</td>
<td>15.0</td>
<td>6</td>
<td>3.8</td>
<td>2</td>
</tr>
<tr>
<td>Embarrassed about pregnancy</td>
<td>12.5</td>
<td>5</td>
<td>1.9</td>
<td>1</td>
</tr>
<tr>
<td>Didn’t like kind of care received at clinic</td>
<td>12.5</td>
<td>5</td>
<td>1.9</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Multiple logistic regression was used to determine the odds ratios, adjusting for prenatal risk factors.

disorder, was not possible. Few studies have investigated the prevalence of DSM-IV psychiatric disorders in pregnant women, although Powers and colleagues (1986) administered the Diagnostic Interview Schedule (DIS) (Helzer et al., 1985) to a convenience sample of 50 hospitalized women with high-risk pregnancies and found that 16 percent had diagnosable depressive disorders.

Although the importance of prenatal care is universally endorsed by health professionals, the health care delivery system often sets up barriers to its services. In this study, frequently cited barriers involved the environment of the prenatal clinic, such as long waiting times, crowded clinics, and nonexistent evening or weekend hours. Because lack of available child care during usual business hours is not uncommon for low-income women, prenatal clinics often abound with young children who are asked to sit quietly for long periods of time in a crowded clinic with little to do.

Nearly 20 percent of the women indicated that the clinic was too far away. Thus, some women may conclude that the discomfort and inconvenience associated with keeping a clinic appointment outweighs its respective benefits.

Social desirability may have contributed to the underreporting of some access barriers.

Substance use is one example, because some women may have feared the negative consequences associated with openly discussing prenatal alcohol and drug abuse. The belief that prenatal care is not important or needed also may have been underreported, because the desirability of obtaining prenatal care is widely known. The influence of perceived need on the use of health services, such as appointment keeping, has been well documented using the Health Beliefs Model (Wells, McDermid, & Bayatpour, 1990). A more in-depth investigation of these underlying beliefs and attitudes may provide further insight into the role of cognitive perceptions as barriers to prenatal care.

Access barriers that placed women at most risk of receiving inadequate prenatal care tended to be intrapersonal and interpersonal in nature. Women who did not want family and friends to know about their pregnancy were nearly five times more likely to receive inadequate care. Earlier research has documented that secrecy about one’s pregnancy is a common barrier to care (Leatherman et al., 1990; Oberg et al., 1990). Although the underlying dynamic has not been investigated, several studies suggest that women who receive inadequate care

Cook, Selig, Wedge, and Cohn-Baube / Access Barriers and the Use of Prenatal Care by Low-Income, Inner-City Women
often have pregnancies that are unwanted and unplanned (Lia-Hoagberg et al., 1990; Sable et al., 1990). It follows that prenatal clinics for low-income women need strong counseling and health education programs to help women address negative feelings about their pregnancies and related intrapersonal issues. For women whose negative feelings interfere with their ability or willingness to attend clinic appointments, proactive outreach is needed. As a part of social work practice, outreach would first involve active efforts to locate and reach these women in the community. Through personal contact, this special group of women can be informed about the services and benefits available in prenatal clinics, as well as the ways these services can specifically help them.

Another powerful risk factor in this study was dissatisfaction with quality of care in the prenatal clinic. Although it was not a frequent occurrence, women who were unhappy about their care were four times more likely to receive inadequate prenatal care. In support of this finding, an earlier study demonstrated that lack of confidence in one’s health care provider is associated with high no-show rates (Bean & Talaga, 1992). With a better understanding of the source of this dissatisfaction, social workers can more effectively detect and help eliminate system-based barriers and, ultimately, improve the use and quality of prenatal health services.

Important intrapersonal risk factors included having no place to live and having personal problems that took priority over prenatal care. In both cases, these factors placed women at nearly four times the risk of receiving inadequate prenatal care. Oberg and colleagues (1990) found that Medicaid-enrolled pregnant women reported significantly more personal conflicts and concerns than their counterparts who were either privately insured or uninsured. For many women it is likely that the daily stress and immediate demands associated with poverty take priority over the immediate perceived need to attend a clinic appointment.

**Implications for Social Work**

A traditional role for social workers in health care has been to assess and treat social, environmental, and psychological problems (Resnick & Tighe, 1997). Social workers can help pregnant women navigate complex hospital systems using advocacy skills and mobilize community support systems through referrals. They can help create a more comfortable atmosphere in prenatal clinics through environmental modification of waiting rooms (for example, child care volunteers, magazines, and refreshments) and assistance in gaining access to clinic resources (for example, appointments, laboratory tests, and educational seminars) through regular ongoing contact with clients.

Too often, the importance of these services is underplayed in the current atmosphere of managed care. However, cost savings can be realized through social work interventions that address barriers to early and regular prenatal care. The Institute of Medicine (1994) estimated that every $1.00 spent on prenatal care saves more than $3.38 in medical costs for LBW infants in the first year of life. In addition, cost reductions associated with decreased use of high-technology neonatal services and other health care resources are substantial.

Social workers can help develop innovative service delivery models that facilitate accessible care to better meet the needs of pregnant women (Kelley, Perloff, Morris, & Liu, 1992). Proactive outreach must be considered along with the early assessment of social, environmental, and psychological access barriers and ongoing assistance to overcome them. Computer screening for access barriers during the first prenatal clinic visit might be considered to identify women at most risk of inadequate prenatal care (Lapham, Kring, & Skipper, 1991). With limited staffing resources, the highest-risk group can be the target of intervention. Other programmatic interventions might include mailed and telephone reminders of clinic appointments, an approach shown to be cost-effective.
effective in several studies (Bean & Talaga, 1992). On-site childcare could also be initiated in prenatal clinics, as well as the use of incentives (for example, coupons or gifts) to encourage regular clinic attendance. Another programmatic strategy could involve community outreach before women initiate prenatal care. For example, programs with community volunteers who conduct door-to-door case finding of pregnant women can facilitate the early initiation of prenatal care. Discussions about the risks of not receiving prenatal care could take place, as well as the availability of services and the benefits of keeping regular appointments throughout one’s pregnancy.

Many important research questions remain unanswered about access barriers and risks of inadequate prenatal care. First, because this study collected data from one urban hospital with a sample of predominantly African American women, the research design must be replicated to support its generalizability. In other words, what kinds of barriers are experienced by women from other ethnic minority groups? Do pregnant women who live in rural areas experience similar access barriers? How does socioeconomic class influence the type of barriers experienced by pregnant women? Second, prospective research on the complex relationship of access barriers, prenatal service utilization, and reproductive outcomes is needed. Given the cross-sectional nature of the present study, it is unclear whether women who received inadequate care overestimated the frequency and difficulty of access barriers because of social desirability bias. Moreover, causality could not be inferred among access barriers, adequacy of care, and birth outcomes. Third, there are other access barrier issues that would benefit from further research, such as the role of health beliefs in overcoming barriers to care and the effectiveness of access coordination programs in facilitating positive maternal–infant outcomes. All of these areas are important areas of empirical investigation by social workers.

**Conclusion**

In sum, this study demonstrates that low-income women, despite having their obstetrical health care costs covered, experience many barriers to prenatal care. Moreover, these barriers are significantly related to whether or not women receive adequate care during their pregnancy. An important role for social workers is helping pregnant women overcome the social, environmental, and psychological barriers to obtaining health services during pregnancy. The elimination of these barriers will facilitate quality of care and healthy outcomes, which in turn will contribute to the reduction of health care costs.

**References**


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