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Barriers to Utilization of Prenatal Care
for Low Income Women Living in Rhode
Island: Impact of the Client-Service
Provider Relationship

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BARRIERS TO UTILIZATION OF PRENATAL CARE FOR LOW INCOME WOMEN
LIVING IN RHODE ISLAND:: IMPACT OF THE CLIENT-SERVICE PROVIDER
RELATIONSHIP

A project based upon an independent investigation, submitted
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ABSTRACT

Federal legislation was enacted in the 1980's to expand Medicaid eligibility of prenatal care coverage. Despite this focus however, many women still continue to not utilize care early or adequately (Regenstein, Cummings, & Huang, 2005, p.1). This study examines how barriers to utilizing early and adequate prenatal care, such as a lack of transportation and/or childcare, affect women of low income living in Rhode Island. Specifically, the focus is on the clients' perceptions of the client-prenatal service provider relationship. This study also examines the impact of utilization of early and adequate prenatal services, and of substance use, on birth outcomes for participants. It is hypothesized that those women who report having negative relationships with their services providers utilized prenatal care less sufficiently than their counterparts who report having positive relationships with their service providers.

The participants who completed the survey instrument were comprised of 14 low income women living in Northern Rhode Island. Ten participants reported initiating care in the first trimester, while four began utilizing care in the second trimester. All participants initiated care reportedly in the trimester they learned they were pregnant. The mean number of prenatal visits attended was 9.67, excluding two participants who had not given birth yet.

The results highlight the experienced barriers of transportation, childcare, and client-service provider relationship, as well as the presence of substance use, for participants who utilized adequate and adequate plus, intermediate, and inadequate or severely inadequate prenatal care. In addition, the study looked at the level of utilized care, barriers experienced, and substance use in relation to birth outcomes. Limitations of the study and implications for social work practice, policy, and research are discussed.

Introduction

Prenatal care is health care administered for pregnant mothers and their developing babies. When administered effectively, prenatal care reduces a baby's risk for low birth weight, disabilities, heart problems, prenatal illness, preterm delivery, and death. Prenatal care helps women address behavioral issues such as smoking and alcohol use, which are likely to produce poor birth outcomes (Ahmend, Gies, & Knaap, n.d.). This study will examine how barriers to utilizing early and adequate prenatal care, such as a lack of transportation and/or childcare, affect women of low income living in Rhode Island. The focus will also be on the clients' perceptions of the client-prenatal service provider relationship. The study will also consider how using substances during pregnancy impacts the client-service provider relationship and affects birth outcomes.

Women's health experts recommend that women begin receiving prenatal care in the first three months, or first trimester (Commonwealth Fund [CF], 2006). According to Nothangle, Marchi, Egerter, and Braveman (2000), prenatal care should be administered in an appropriate health care setting as soon as the mother learns she is pregnant (Ahmend, Gies, & Knaap, n.d.). Prenatal care is more effective if begun early in the pregnancy, but also needs to continue throughout the full gestation period. The American College of Obstetricians and Gynecologists advises women to attend at least 13 prenatal visits during a full-term pregnancy ("Healthy People 2010," 2000). However, the recommended number of visits is dependent upon when prenatal care was initiated. Visits typically take place once a month during the first 28 weeks of pregnancy, every two to three weeks from weeks 28-36, and then once per week until delivery (Ahmend, Gies, & Knaap, n.d.).

This study will also examine when prenatal care insurance coverage became available for participants, compared to when these women started utilizing care. The decline of infant mortality rates has not been as fast in the United States as compared to Western Europe or Japan, and these negative rates initially highlighted the importance of prenatal care for positive birth outcomes in the 1980's (Regenstein, Cummings, & Huang, 2005, p.1). Federal legislation was enacted in the 1980's to expand Medicaid eligibility of maternity care coverage. The goal was to increase the number of insured pregnant women so that they would receive quality prenatal care at higher rates. According to Egerter, Braveman, & Marchi (2002), Piper, Ray, and Griffin (1990), Haas, Udavarhelyi, Norris, and Epstein (1993), and Piper, Mitchel, and Ray (1994) found that increasing eligibility was not improving accessibility to prenatal care (p. 423). Despite this focus however, many women still continue to not utilize care early or adequately (Regenstein, Cummings, & Huang, 2005, p.1).

The study will address barriers that low income women in Rhode Island face to utilizing early and adequate prenatal care. The 2005-07 averages for Rhode Island show that about one in seven women (13.6 percent) ages 15-44 were uninsured in comparison to 20.1 percent of women in the U.S. In addition, about one in eight, 13.1 percent, lived in families earning an income below the poverty threshold compared to 15.1 percent in the U.S. ("PeriStats," March of Dimes, 2008). Although lack of insurance can be one of the largest barriers to receiving prenatal care, this aspect will not be the main focus of this study due to Rhode Island's success in minimizing this barrier. Other barriers to utilizing prenatal care may include lack of transportation, lack of child care, and inadequate or unresponsive health care systems in respect to the needs of women living in poverty (Ahmend, Gies, & Knaap, n.d; Pistella, Bonati, and Mihalic, 1999). The study will address which barriers individual participants experienced, and compare this to the level of

prenatal care utilized and the birth outcome. Specifically, participants will be asked about their level of confidence in their service providers' quality of prenatal care as well as their level of satisfaction with various aspects of the client-service provider relationship.

Literature Review

Importance of Prenatal Care for Reducing Poor Birth Outcomes

When barriers to utilizing prenatal care are not addressed, this affects utilization of care and birth outcomes. For instance, Gary-McCormick, Thyer, Pantan, & Myers (2000) examined the correlation between keeping prenatal appointments and birth outcomes among a sample of high-risk low income women enrolled in a prenatal program. The study compared pregnancy outcomes for women who attended 13 or more visits with women who attended four or fewer. They found that participants who attended more visits delivered infants with significantly greater gestational ages and higher birth weights. Apgar scores for the infants were also higher on average (Gary-McCormick, et al., 2000).

Prenatal care includes extensive routine testing and education to ensure a healthy pregnancy. For instance, prenatal care covers testing the mother for diseases that could harm the baby, such as diabetes, hepatitis B, syphilis, and HIV (Ahmend, Gies, & Knaap, n.d.). With proper prenatal care, serious problems can be prevented ("March of Dimes," 2008). The service provider and the client communicate consistently about various gestational related issues (Ahmend, Gies, & Knaap, n.d.). It is therefore a great asset for expectant mothers to have a good relationship with their service provider, and be confident in both their provider's attentiveness as well as their technical, medical skills.

Specifically, prenatal care is a preventive method of care that when effective, reduces effects such as low birth weight and infant mortality. Nearly 30,000 infants in the U.S. die every

year due to low birth weight. Infants with low birth weight who survive have a high probability of suffering from severe and costly disabilities over their lifetime. This affects low-income women and their infants at a higher rate (Ahmend, Gies, & Knaap, n.d.). The American College of Obstetricians and Gynecologists (2005) reports that premature and low birth weight babies have an increased risk of facing chronic lifelong disabilities such as cerebral palsy, mental retardation, and learning problems. They also have a greater risk of dying (March of Dimes," 2008). Babies born to mothers who did not receive prenatal care are three times more likely to be born at a low birth weight, and five times more likely to die than those whose mothers did receive prenatal care (Ahmend, Gies, & Knaap, n.d.). Quinn et al. (2006) note that women who receive early and adequate care are less likely to give birth to a low birth weight infant or face maternal or fetal death, in reference to studies conducted by Amini, Catalno, & Amm, (1996), Brett, Schoendorf, & Kiely, (1994), and Vintzileos, Anath, Smulian, Scorza, & Knuppel (2002).

Frank et al. (2004), as cited in Rosenberg (2004), conducted a survey in 2001 exploring the association between low birth weight and the timing of prenatal care. The findings included that women who smoked were more likely to have a low birth weight baby. Women who received prenatal care after the first trimester were half as likely to have had a low birth weight baby versus those who received no prenatal care. Demographically, the younger the women, the less likely they were to have received prenatal care. The women pregnant out of formal unions were also less likely to have received prenatal care (Rosenberg, 2004). A limitation of this study is that most of the women were socioeconomically disadvantaged. A better representation of the socioeconomic effect may be found in a nationally representative survey sample. Rosenberg (2004) suggests that programs working to reduce low birth weight should focus on increasing

access, utilization, and quality of care to improve maternal lifestyle choices and address the effects of socioeconomic disparities (Rosenberg, 2004).

Substance Abuse

Barclay and Vega (2008) referenced a study reported in the June 2008 issue of the *Journal of Perinatology*, stating that substance abuse treatment integrated with prenatal visits as part of Early Start in Northern California was correlated with a positive effect on newborn and maternal health. Women who screened positive and received treatment ended up having low birth weight, preterm delivery, and still births in numbers similar to women in the control group. The women who screened positive and were not treated however, showed significantly higher poor outcomes in these areas (Barclay and Vega, 2008). Such substances examined include cigarettes, alcohol, marijuana, methamphetamines, cocaine, and heroin. Stacy (2008) also references this study and reports that women who use drugs, tobacco, or drink alcohol can still have healthy outcomes for pregnancy similar to women who do not use any substances if they receive substance abuse treatment and adequate prenatal care early in the pregnancy.

Healthy People 2010 contend that alcohol, tobacco, and illegal substances use during pregnancy significantly increase the risk for these poor infant outcomes. Healthy People 2010 also assert that early and adequate prenatal care reduces the risk for poor pregnancy and infant outcomes, including fetal death (“Healthy People 2010,” 2000). Women using substances while pregnant who do not receive treatment place their babies at a significantly greater risk for poor birth outcomes and abnormalities.

Many expectant mothers are unaware that the use of alcohol during pregnancy puts the baby at a significantly greater risk. In addition to receiving prenatal care and substance related education, receiving substance abuse treatment can potentially eliminate the risk for Fetal

Alcohol Syndrome (FAS). FAS is an umbrella term which describes a range of effects on the baby from the mother drinking while pregnant, which can cause mental retardation, birth defects, and physical and mental disabilities. FAS is permanent, but completely preventable (Center for Disease Control).

Another potentially harmful behavior during pregnancy is smoking cigarettes. Martin et al. (2006), as cited by “March of Dimes” (2008), report that at least ten percent of women currently smoke during pregnancy in the United States. U.S. Department of Health and Human Services (2004) notes that if all pregnant women in the United States stopped smoking there would be an 11% reduction in still births and a five percent reduction in newborn deaths. Martin et al. (2006) asserts that smoking also nearly doubles the risk of having a low-birth weight baby (“March of Dimes,” 2008). “March of Dimes” (2008) references Martin et al. (2006) who found that in 2004, 11.9% of babies born to smokers in the United States were of low birth-weight, verses 7.2% of babies born to non-smokers. “March of Dimes” (2008) also notes that the Center for Disease Control and Prevention (2007) alerts that smoking stunts fetal growth and also increases the risk of preterm delivery. Preterm delivery is defined as before 37 weeks of gestation. In addition, if a woman stops smoking by the end of her second trimester, she is no more likely to have a low birth weight baby than a woman who never smoked.

“March of Dimes” (2008) also references a recent study by Mailk et al. (2008) who note that women who smoke during the month before pregnancy to the end of the first trimester are more likely to have a baby with birth defects. In particular, this includes congenital heart defects. The Department of Health and Human Services (2004) finds that smoking during pregnancy doubles a woman’s risk of developing placental problems, which are correlated with many complications during pregnancy (“March of Dimes,” 2008).

Barriers to Utilizing Prenatal Care

The Maternal and Child Health [MCH] Bureau (2003), reports that every year, nearly one million American women give birth without receiving sufficient prenatal care (Ahmend, Gies, & Knaap, n.d.). Making prenatal care more accessible to women who come from poor financial backgrounds is an important charge for the United States (Ahmend, Gies, & Knaap, n.d.). In 2003, with no perceptible increase in 2004, about 600,000 mothers of infants born in the US, or one out of every six, did not begin prenatal care in her first trimester. Rates differed in the 41 states studied, but Rhode Island was one of only three in 2004 to meet the National “Healthy People 2010” goal of 90% of women receiving prenatal care (Commonwealth Fund, 2006).

As mentioned, barriers to utilizing prenatal care may include lack of transportation, lack of child care, and inadequate or unresponsive health care systems in respect to the needs of women living in poverty (Ahmend, Gies, & Knaap, n.d; Pistella, Bonati, and Mihalic, 1999). Barriers to receiving prenatal care may also include living in poverty, inadequate health insurance, and/or health care provider shortages (Pistella, Bonati, and Mihalic, 1999). As cited by Ahmend, Gies, & Knaap (n.d), Sword (2003) also highlights such factors as age, child care, perception of health care providers, and perspectives about medical care in general.

Age

“Healthy People 2010” (2000) also declares that age is a major factor in receiving early and adequate prenatal care. Data shows that early entry rises with age. For mothers 15 years old and under, the risk of poor birth outcomes is supreme. In fact, less than half of pregnant women 15 years old and under obtain adequate prenatal care. Therefore, on-going work is needed to educate women, particularly young women, about the need for early and constant prenatal care (“Healthy People 2010,” 2000).

Poverty

As cited by Bedics (1994), Dubay, Kenney, Norton, & Cohen (1995) and Mor, Alexander, Kogen, Kieffer, & Hulsey (1995) reported that studies of prenatal care among populations with universal health insurance found persistent delayed entry patterns among low income women in comparison to higher income women in the same population. To access the effects of policy change on low income women and infants in the 1990's, Howell, Pettit, and Kingsley (2005) attempted to determine whether differences between high poverty neighborhoods and other neighborhoods have declined in respect to maternal and child health. Their methods included categorizing neighborhood-level statistics and US census data as being either high poverty or not. High poverty was defined by over 30% of the population being below the federal poverty level in 1990 (Howell, Pettit, and Kingsley, 2005).

Four indicators for maternal and child health were assessed, including births to teens, late prenatal care, low birth weight, and infant mortality. This was conducted over the 1990's in neighborhoods, both high poverty and not, from parts of each of the four following states: Ohio, Colorado, Indiana, and California. Interestingly enough, the cities with the most intensive programs to improve maternal and child health, which were located in Ohio and California, saw the most consistent progress across all four indicators (Howell, Pettit, and Kingsley, 2005).

Nevertheless, the study shows that there are still significant differences between high poverty and other neighborhoods (Howell, et al., 2005). The National Vital Statistic System, CDC, and NCHS report that the 2010 target for maternal prenatal care beginning in the first trimester of pregnancy and for early and adequate prenatal care is 90% of live births in the US ("Healthy People 2010," 2000). At the time, only the high-poverty neighborhoods studied in

California may have met some of the Healthy People 2010 maternal and child health goals. Much work needs to be done to achieve the 2010 goals (Howell, et al., 2005).

Race/Ethnicity

Additionally, Adams, Gavin, and Benedict (2005) show a significant discrepancy between White and non-White populations in the U.S. in terms of receiving early and adequate prenatal care and pregnancy outcomes such as low birth weight and maternal/infant mortality. Their data shows that more minorities on Medicaid living in urban areas where there is more physician supply did not help with access to services, especially among non-Hispanic Blacks. However, the presence and utilization of safety net providers did increase prenatal care among minorities. Safety net providers may be better able to serve low-income populations (Adams, Gavin, and Benedict, 2005). Nevertheless, Alexander et al. (2002) notes that “the women most likely to benefit from early prenatal care because of their higher risk of poor birth outcomes- teens, blacks, and those who are unmarried and have less education- remain less likely to receive it” (Commonwealth Fund, 2006, p.2).

The National Center for Health Statistics report that the Healthy People 2010 goal of reducing *very low birth weight* to no more than .9% of live births was not met by any race/ethnicity. The averages from 2003-05 showed that very low birth weight was highest for Black infants, followed by Asian, Hispanics, Native Americans, and Whites respectively. Black infants were about twice as likely as White infants to be born very low birth weight (“March of Dimes,” 2008).

In addition, the National Center for Health Statistics report that the Healthy People 2010 goal of reducing *low birth weight* to no more than 5% of live births was not met by any race/ethnicity. For low birth weight among Rhode Island babies from 2003-05 however, the

highest was for Native Americans, followed by Blacks, Asians, Hispanics, and Whites. Native American infants were about twice as likely as White infants to be born low birth weight. In 2005, one in thirteen babies were born low birth weight in Rhode Island, an increase of about 15% between 1995 and 2005 (“March of Dimes,” 2008).

Rates of utilization of early and adequate prenatal care also vary by race/ethnicity in Rhode Island. Rhode Island state statistics from 2003-05 demonstrated that Whites received the highest rates of early prenatal care, followed by Hispanics, Native Americans, Blacks, and Asians. Native American women had the highest rate of late or no prenatal care, which was three times higher than the rate for White women (“March of Dimes,” 2008)

Client-Service Provider Relationship

As cited by Quinn et al. (2006), according to Handler, Rosenburg, Raube, and Kelley (1998) and Raube, Handler, & Rosenberg (1998), more recent literature has been developing in regards to the interaction between patients and health care providers. Research is showing that poor client-service provider relationships are a prevailing hindrance to the use of accessible prenatal care services. Aspects such as physician attitude, interaction style, and concern for patient satisfaction with the prenatal visit have all contributed to women’s willingness to attend future visits (p.230). Also as cited by Quinn, et al. (2006), Gross, Zyzanski, Borawski, Cebul, & Strange (1998) point out that patients assert more satisfaction with services when they perceive their physician as being caring, sensitive, and empathetic (p.230). In addition, Quinn et al. (2006) found that patients also tend to be able to recall more information provided during services when their physician displays a positive affect (p.230). As cited by Quinn et al. (2006), Martin (2006) also believes that in recognizing a “good doctor,” patients consider timeliness, accuracy, courtesy, and outcomes of the service and information afforded (p.230).

Social prejudices about low income persons can lead to substandard prenatal care for disenfranchised patients. As cited by Quinn et al. (2006), Hall, Roter, and Katz (1988) found inconsistencies in provider behavior across social classes. The research also showed that providers communicated less information and were less supportive of low income and minority patients (p.230). Also as cited by Quinn et al. (2006), Sword (2003) notes that other research which studied interactions between patient and health care providers whom were seen as paternalistic or prejudiced were often seen by low income women as a mirror image of their current marginalized and disenfranchised places in society (p.231).

Quinn et al. (2006) cites Baider, Uziely, and De-Nour (1997) who found that patients viewed their physicians as offering fewer explanations, less encouragement and having less approachability than the same physicians described themselves (p.231). A community-based participatory initiative, called the National Friendly Access program, in four communities in the United States works to improve access and utilization to quality prenatal and pediatric services for the underserved. This program headed a photo essay qualitative visual strategy to get the attention of physicians. The point of the photo essay is to portray their conception of the prenatal services they may or may not be receiving (Quinn, et al., 2006).

Dana's story, for example, speaks to the issue of patient expectations and the discrepancy between patient expectations and delivery by providers. Specifically, Dana admitted to using drugs during her pregnancy and was stigmatized through her pregnancy and delivery experience. Carrie, on the other hand, spoke to the importance of her home visitor during her pregnancy (which she was depressed about), and stated that the home visitor was the health care professional with whom she had a consistent relationship (Quinn, et al., 2006). Of the 25 medical professionals surveyed, all felt that there were missed opportunities for intervention and

education. Also, most recognized similarities between the women in the photo essay and in their own practice. Not many thought that the women in the photo essay were satisfied with their prenatal care and even less reported they would want it for a close loved one (Quinn, et al., 2006).

Furthermore, Moore & Hepworth (1994) and Higgins, Murray, & Williams (1994), cited by Handler, Rosenberg, Raube, & Michele (1998), each note that client satisfaction appears to impact prenatal care utilization (Handler, Rosenberg, Raube, & Michele, 1998, p.679). According to Aharony & Strasser (1993), client satisfaction with care is also acknowledged as an outcome of care and an assessment of its quality (Handler, Rosenberg, Raube, & Michele, 1998, p.679). Therefore, awareness of the care characteristics that specifically impact low income pregnant women's satisfaction can be used to change the way services are delivered. As a result, this could increase utilization of prenatal care and ultimately improve birth outcomes (Handler, Rosenberg, Raube, & Michele, 1998, p.679).

Handler, Rosenberg, Raube, and Michele (1998) studied the relationship between prenatal care characteristics and satisfaction for African-American and Mexican-American Medicaid recipients (Handler, Rosenberg, Raube, & Michele, 1998, p.685). Participants in the study were non-adolescent African American and Mexican women who both value prenatal care and utilize it. Participants were also of very low income (Handler, Rosenberg, Raube, & Michele, 1998, p.682). These women also had to have attended at least three prenatal visits before being interviewed for the study. Handler, Rosenberg, Raube, and Michele (1998) found that the major characteristics associated with satisfaction with prenatal care were whether the provider explained procedures, waiting time before visits, and the availability of additional services. Communication with the clients' service providers was rated as the most important

variable that contributed to their satisfaction with care. In addition, the participants who spent more time with their service provider did not have notably higher satisfaction scores, suggesting that quality comes before quantity (Handler, Rosenberg, Raube, and Michele, 1998, p.689). In terms of waiting times, as much of the literature from previous studies shows, women are resentful of the notion that their time is not valuable. Most of the participants spent more than 30 minutes in the waiting room. As far as additional services are concerned, few participants had nutrition, social services, and childbirth education all available on site. For the women that did, this was associated with an increase in satisfaction with care, in particular for the Mexican-American women (Handler, Rosenberg, Raube, and Michele, 1998).

Study Addressing Various Barriers

The National Public Health and Hospital Institute, with the support of March of Dimes, conducted a survey to identify poignant factors that contribute to accessibility of prenatal care services. Participants were low income women who delivered at large, urban hospitals in 16 states. The largest group of women was Hispanic, then Black, White, and “other” races. All participants were less likely to have received post secondary education compared to all women delivering in the US in 2003. Specifically, one out of six participants’ last grade of education achieved was the eighth or lower (Regenstein, Cummings, & Huang, 2005, p.1). Participants who received late or no prenatal care were more likely to be younger, black, and have lower educational levels. Women who received late or no prenatal care were also more likely to be uninsured at their time of delivery. Also, most women who received no prenatal care were unmarried. Language and cultural barriers are proven to affect utilization of prenatal care for a considerable number of low income and minority women in the U.S. (Regenstein, Cummings, & Huang, 2005, p.3).

Most participants began prenatal care in the first trimester (71.1%), but 19.6 percent began in the second trimester, 6.6 percent didn't begin until the third trimester, and 2.7 percent had no prenatal care at all. Significantly more babies were born very low birth weight compared to the U.S. total percentage (Regenstein, Cummings, & Huang, 2005, p.1).

Black participants were more likely to deliver low birth weight infants and seemed to be at a greater risk for delivering very preterm infants as well. Unmarried participants were also more likely to deliver both very preterm and moderately preterm infants. The most commonly referred to barriers to utilizing early and adequate prenatal care among participants were transportation and lack of insurance. In addition, about 13 percent of participants said that they delayed or missed care due to their dissatisfaction with the way they were treated by people at the clinic in which they received care (Regenstein, Cummings, & Huang, 2005, p.2).

Cost Effectiveness of Prenatal Care

The statistics show that covering prenatal care for the uninsured through Medicaid is actually cost effective. In 2004, women aged 19-44 and children in Rhode Island made up about 65 percent of Medicaid enrollees, but accounted for only 34 percent of all Medicaid spending ("March of Dimes," 2008). As cited by Umar (2004), Jane Hayward, Director of Rhode Island's Human Services Department asserts that prenatal care saves money and lives.

The economic cost of services to infants exposed to substances is immense. In the United States, FAS related spending is estimated to be from \$75 million to \$9.7 billion each year. Over \$500 million a year is spent on medical expenses for infants whose mothers used cocaine while pregnant. In 1995, money spent on complications with births related to the mother smoking, is estimated at \$1.4 billion, which is 11 percent of costs for all complicated births, based on smoking prevalence during pregnancy of 19 percent. Costs are estimated at \$2.0 billion (15

percent for all complicated births) based on smoking prevalence during pregnancy of 27 percent (“Healthy People 2010,” 2000). Gorsky & Colby (1989) studied the effect of receiving adequate prenatal care on low birth weight outcomes for births between 1981 and 1984 in New Hampshire. They found that in providing universal adequate prenatal care a net cost savings would be about one million per year. To put it another way, for each additional dollar spent on prenatal care, \$2.57 would be saved in medical care costs (Gorsky & Colby, 1989).

Opposing Points

Rhode Island Utilization Statistics

Rhode Island has many states beat in respect to the utilization of prenatal care. Overall, in 2005, 89.3 percent of live births in Rhode Island were to women who received early prenatal care, very close to the Healthy People 2010 goal of 90 percent. Also in 2005, only 8.5 percent began care in the second trimester and 2.2 percent late or not at all (“PeriStats,” March of Dimes, 2008). This ranked Rhode Island 3rd in United States for utilization of early and adequate prenatal care (RI KIDS Count, 2008). Rhode Island KIDS COUNT (2007) reported that according to the 2004 data, Rhode Island ranked best in the nation for women receiving prenatal care, with the lowest percentage of total births to mothers who received late or no prenatal care, at 1.5 percent compared with the national average of 3.6 percent (RI KIDS Count, 2007).

Utilization of Prenatal Care for Low Income Women

Under the Bush Administration in October of 2002, all states were made eligible to use funding already available under the State Children’s Health Insurance Program in order to provide prenatal care for more low income pregnant women. This required deeming the fetus an “unborn child,” which created much controversy (Dailard, 2002). Umar (2004) notes that 700 pregnant women who did not qualify for services under Medicaid were covered under this rule

(Umar, 2004). The federal waiver to provide prenatal care brought in about 1.3 million in additional federal funding through SCHIP in 2003 (“Carciari announces,” 2003). Fiscal year 2008 faced the threat of SCHIP being cut, but it has since been extended until March 31, 2009 with no new funds (Davis, 2007). Pregnant mothers are only covered under SCHIP for services directly related to the fetus and therefore may not be currently covered for all the medical services that they need (Dailard, 2002).

Various studies support the effectiveness of certain comprehensive managed care programs as a means of insuring low income, pregnant women and delivering prenatal care services. Griffin, Hogan, Buechner, and Leddy (1999) studied whether the adequacy of prenatal care utilization improved after a Medicaid managed care program in Rhode Island, RItE Care, was enacted in 1994. According to Howell (2001), access to prenatal care improved from 1990-2000 as a result of Medicaid expansions in coverage for low income pregnant women (The Commonwealth Fund, 2006). The research shows that utilization of adequate prenatal care for Medicaid patients significantly improved, from 57.1% to 62.1% among Medicaid patients (Griffin et al., 1999).

Alexander, Kogan, and Nabukera (2002) also report that the expansion of Medicaid eligibility enhanced access to and funding for comprehensive prenatal care. Comprehensive care can include services such as case management, nutritional and psychosocial counseling, health education, and home visiting, which as of 1998 over 80% of the United States had implemented (Baldwin, Larson, Connell, Norlund, Cain, Cawthorn, Byrns, & Rosenblatt, 1998). According to Piper, Mitchel, and Ray (1994), the expansion may have increased both the early and adequate use of prenatal care and the intensive use of prenatal care for Medicaid- eligible women

(Alexander et al, 2002). Several studies of the upshot of the expansion have shown augmented use of prenatal care (Alexander et al, 2002).

In addition, Kogan, et al., (1998) report that the proportion of women utilizing prenatal care early and at least the recommended number of visits increased between 1981 and 1995. Nonetheless, these increases suggest a paradox because previous studies show that rates of preterm delivery and low birth weight did not improve during this time (Kogan et al, 1998).

“March of Dimes” reports that since Medicaid coverage for pregnant women was enacted, it has grown in significance as a funding and delivery source of prenatal care. Many women who are not eligible to be insured under Medicaid become eligible once they are pregnant. The National Governors Association asserts that Medicaid finances 37% of national births, equivalent to about 1.5 million per year. Insurance through Medicaid has proven greater use of prenatal care. Unfortunately, non-economic barriers do persevere and other factors affect birth outcomes (“March of Dimes,” 2006).

RItE Care: Addressing Additional Barriers Created by the Delivery System

The Medicaid expansions of the 1980’s and 1990’s, which were focused on ameliorating financial barriers, were necessary, but insurance is not enough to ensure utilization of adequate prenatal care and healthy birth outcomes. The RItE Care program was able to be much more successful in this endeavor than other Medicaid expansions for pregnant women because the program includes specific interventions that address and alter organizational and delivery system barriers to care (Griffin et al., 1999).

Such interventions included simplifying and speeding up the application/enrollment process, facilitating early entry into prenatal care by distributing lists of available providers at the time of enrollment, and allowing women to continue with their provider even if the provider is

not in a RItE Care health plan. Perhaps the most salient enhancement included increasing the number of private office-based obstetricians providing prenatal care to pregnant women on Medicaid, which lessens the burden on overextended community health centers and hospital clinics. This allows both sectors to provide more adequate prenatal care for pregnant women in Rhode Island (Griffin et al., 1999).

Developments also included increasing reimbursement to providers, requiring health plans to provide outreach to all members of childbearing age, and including free pregnancy testing. It also required providers to start prenatal care as early as possible in the first trimester and/or within three weeks of a positive pregnancy test. RItE Care also started advertising and providing continuous help for members through a toll free information line staffed by counselors trained in RItE Care procedures. Counselors make sure that callers are enrolled in prenatal care. RItE Care addresses the barrier of transportation by providing bus passes and cab vouchers. RItE Care also performed an outreach campaign including advertisement on billboards, newspapers, radio stations, and television (Griffin et al., 1999). “March of Dimes” also reports that simplifying application forms, facilitating smoother enrollment procedures, limiting required income verification documentation, and providing multilingual application materials have been found to improve enrollment among children eligible for Medicaid or the State Children’s Health Insurance Program (SCHIP) (“March of Dimes, 2006).

Race/Ethnicity

Alexander, Kogan, and Nabukera (2002) investigated trends and racial disparities between White and African American women in terms of trimester of prenatal care initiation and adequacy of prenatal care utilization. They also looked at specific high-risk subgroups including unmarried, young, and less-educated mothers for both racial groups. Data of singleton births by

U.S. resident mothers spanning from 1981-1998 was used. Alexander et al. (2002) found that overall, early and adequate use of care improved for both racial groups. They also found that racial disparities in prenatal use have clearly been reduced for all sociodemographic subgroups, except young mothers. Young African American expectant mothers remain at a higher risk for not receiving early and adequate prenatal care than their White counterparts (Alexander et al., 2002).

Predominantly during the 1990's African American women were gradually catching up to their White counterparts utilizing early and adequate prenatal care. Meanwhile, White women were reaching the same level of intensive use of care as their African American counterparts. Reasons for the narrowing of racial disparities may be due to national policy emphasizing and committed to reducing racial disparities in health outcomes, in conjunction with efforts to remove economic barriers to care. Efforts to encourage culturally competent care and reduce racial disparities in the content of care may have also played a role (Alexander et al., 2002).

Overall, there is a greater intensive use of care among African Americans compared to Whites, but the proportion of mothers who require an intensive number of prenatal visits has increased by far for both groups. However, the disproportionately higher increase among Whites may be a reflection of the relatively higher increase in both preterm and multiple birth rates for Whites between 1980 and 1990. For young and low-educated mothers, the intensive use of care has recently become higher among Whites. In addition, births to low educated African American mothers were decreasing, and slightly increasing for Whites. Finally, births to youths for both racial groups were not increasing (Alexander et al., 2002).

Addressing Transportation as a Barrier

The Rhode Island Department of Human Services (DHS) and the Rhode Island Public Transit Authority (RIPTA) also help in conjunction with the RItE Care health insurance program to alleviate the transportation barrier. RIPTA provides monthly bus passes or RHODY TEN passes to all RItE Care/RItE Share members identified as eligible by the Rhode Island DHS. These passes allow the heads of households and their dependent children to utilize reliable transportation to medical services and preventive healthcare, including doctor visits, hospitals, and labs (Rhode Island Public Transit Authority, 2008).

Addressing Childcare as a Barrier

The Rhode Island DHS funds a Child Care Assistance Program as well. Under the Family Independence Act of 1997, all income eligible working families are guaranteed child care assistance. Working families earning up to 180% of the federal poverty level are assisted in paying for the high cost of quality child care. Although assistance is chiefly based on the income of working families, the hours that the parent or parents are engaging in training or education experience are also considered (Rhode Island Department of Human Services, 2008).

Rhode Island DHS may pay the full or partial amount to the child care provider(s) chosen by the family. If approved, families may be required to pay co-pays depending on their income and family size. Participants do not have to be receiving assistance through the Family Independence Program (FIP), or any other state aid, in order to qualify. There are no waiting lists for, or time limits on, receiving assistance. Parents may visit the Rhode Island DHS website to obtain a list of qualifying incomes based on family size and co-payment ranges (Rhode Island Department of Human Services, 2008).

When choosing a provider, parents may select more than one if that meets their family's needs. Providers may include a licensed child care center or after-school program, a certified family childcare home, an approved relative of the child in the relative's home, or an approved provider selected by the family in the child's home. Currently, 80% of care financially assisted by Rhode Island DHS occurs in childcare centers and after-school programs licensed by the Department of Children, Youth, and Families (DCYF) or in family childcare homes certified by DCYF. Rhode Island DHS also funds a program called Options for Working Families, which provides families with information on certified and licensed child care programs and resource and referral services to employers (Rhode Island Department of Human Services, 2008).

Rhode Island Outcomes for Prenatal Care

Rhode Island showed improvements on five of the nine measures of infant health and development from 1990 to 2004. Rhode Island enhanced health conditions for newborns by (1) more women receiving timely prenatal care, (2) fewer women smoking during pregnancy, (3) fewer first and (4) repeat teen births and (5) fewer births to mothers with less than a high school education (RI KIDS COUNT, 2007). The nine state level conditions measured in *The Right Start for America's Newborns: City and State Trends* report includes: births to teens; births to teens who were already mothers; births to mothers with less than 12 years of education; births to unmarried women; births to mothers receiving late or no prenatal care; births to mothers who smoked during pregnancy; low birth weight infants; and preterm births; and new national data on birth outcomes by the race and ethnicity of the mother for every year since 1990. As of 2004, Rhode Island ranked in the top half of the nation in six of the nine measures (RI KIDS COUNT, 2007).

Additional Rhode Island 2004 data speaks to the improvements in the effectiveness of prenatal care in Rhode Island. For instance, births to mothers who smoked during pregnancy in Rhode Island declined by 50% from the year 1990 to 2004. Secondly, births to women with less than 12 years of education in Rhode Island decreased by 19% from 1990 to 2004. Also, births to teen mothers in Rhode Island declined from 10.5% from 1990 to 2004 (RI KIDS COUNT, 2007). Still, there was a 29% increase in the percentage of low birth weight babies born and a 23% increase in the percentage of preterm births from 1990 to 2004 (RI KIDS COUNT, 2007).

Other Barriers to Utilizing Prenatal Care

The CDC (2000) reports that one half of the women who started prenatal care late said they would like to have started earlier, but many didn't because they did not know they were pregnant (The Commonwealth Fund, 2006). This may speak to the notion that not accessing early prenatal care has less to do with insurance and other barriers than it has to do with actually knowing one is pregnant. However, lack of utilizing care may also be due to attitudes towards pregnancy. For instance, about one out of seven participants from the Regenstein, Cummings, & Huang (2005) study reported that the resistance towards the pregnancy added to not utilizing early and adequate prenatal care. About 8.7 participants also reported that they did not think that prenatal care was as important after receiving care with their first child already (Regenstein, Cummings, & Huang, 2005, p.2). Also, of the women that did not receive any prenatal care, 23.1 percent said they did not know where to find care and were more than twice as likely to report not being sure if they wanted the baby and identified this as a barrier (Regenstein, Cummings, & Huang, 2005, p.3).

Poor Birth Outcomes and Comprehensive Prenatal Care

Klerman, Ramney, Goldenberg, Marbury, Hou, and Cliver (2001) conducted a randomized trial of improved prenatal care with multiple-risk, Medicaid eligible African American women as their cohorts. Improved care included educational peer groups, additional appointments, more time with clinicians, and other supports. This high-quality prenatal care focused on education, health promotion, and social support. Care was provided in a culturally appropriate and individualized manner, within a supportive environment. The study explored whether receiving enhanced prenatal care would improve pregnancy outcomes and patient's knowledge of risks, satisfaction with care, and behavior for these women at high risk for not receiving adequate prenatal care (Klerman, et al., 2001).

Results showed that women rated the improved care as more helpful; they knew more about their risk conditions, and they spent more time with their nurse-providers compared to women utilizing typical prenatal care. Also, more smokers quit smoking from the improved care group, than women receiving typical care. Women who received improved care had significantly increased satisfaction, knowledge of risk conditions, and seemed to have a sense of achievement and control in their lives. However, the improved care did not show a subsequent reduction in low birth weight (Klerman et al., 2001). Klerman et al. (2001) report that this confirms a growing body of literature suggesting that providing more or higher-quality prenatal care is not likely to realize a significant reduction in low birth weight and prematurity.

Hypothesis

The literature presented shows that low-income women face more barriers to utilizing prenatal care than they do to having access to insurance. Although lack of insurance is a real barrier, the literature shows that the more poignant barriers include lack of transportation and

service providers being insensitive and unresponsive to the needs of low-income women. In addition, the literature also shows that expectant mothers who do not receive early and adequate prenatal care experience poor birth outcomes at higher rates.

This study will examine the impact of utilization of early and adequate prenatal services on positive birth outcomes for low income women living in Rhode Island. Specifically, the focus will be on the impact of clients' relationships with service providers. It is hypothesized that those women who report having negative relationships with their services providers utilized prenatal care less sufficiently than their counterparts who report having positive relationships with their service providers. Furthermore, it is expected that women who report negative relationships with their service providers will also have experienced poor birth outcomes, such as low birth weight, at a higher rate than their counterparts.

Methodology

Sample

The study was an exploratory, descriptive study which used qualitative and quantitative data. The participants included a sample of two pregnant women and fourteen mothers who gave birth to a child within the last six months. These women resided in Northern Rhode Island and were of low income.

Participants were currently either enrolled in Early Intervention, Family Preservation, or a medical outreach program for mothers with newborns, all based in Northern Rhode Island. The researcher gave the instrument (Appendix A) to staff persons working with these clients, after obtaining permission from their supervisors.

Data Collection

Each participant was given a consent form (Appendix B) indicating that the study would examine the barriers to utilizing prenatal care for low income women living in Rhode Island. All participants were informed that their participation was strictly voluntary, and that they could withdraw anytime up until the consent form has been removed from the questionnaire.

Confidentiality measures included that the researcher separated the surveys from the consent forms upon receiving them. Participants were also informed that after obtaining the data, the consent form would be shredded, destroying all identifying information linking the participant to the data. Participants were also notified that a brief excerpt from the qualitative section of the questionnaire may be quoted in the thesis.

The survey instrument was comprised of three sections. The quantitative sections included the first addressing demographics, and the second addressing potential barriers to the utilization of prenatal care. A final qualitative section further addressed the potential barrier of the client-service provider relationship. The demographics section addressed, but was not limited to, ethnicity, age, marital status, level of education, type of health insurance, monthly income, number of prenatal visits attended, point at which prenatal care was initiated, use of alcohol and/or drugs, and birth outcomes.

In section two of the instrument, the potential barriers of transportation, child care, and the client-service provider relationship to the utilization of prenatal care were addressed. The barriers of transportation and child care included questioning as to how the state of Rhode Island had or had not granted the participants qualification to receive funding to minimize these barriers for participants through the utilization of available state programs.

The instrument focused on the potential barrier of the client-service provider relationship, including a quantitative section with Likert Scale questions. These questions spoke to various aspects of the client-service provider relationship, such as the service providers' level of respect for the clients' cultures and beliefs, judgment, treatment with dignity and respect, empathy, timeliness, approachability, and genuineness. The open-ended, qualitative questions found in section three were designed to gain a further understanding of the client-service provider relationship.

Certain variables to follow needed to be defined. Early prenatal care was defined as the initiation of prenatal care within the first three months of pregnancy, or the first trimester (CF, 2006). Adequate prenatal care was defined as attending at least 12-13 regularly scheduled prenatal visits ("Healthy People 2010," 2000 & Ahmend, Gies, & Knaap, n.d.). Premature infants were defined as a live birth before 37 completed weeks of gestation. Also, infants born less than five pounds, eight ounces were considered low birth weight. In addition, infants born less than three pounds, five ounces were considered very low birth weight (March of Dimes, 2008).

Data Analysis

The data taken from completed questionnaires was inputted into the SPSS Program. Descriptive statistics were analyzed to infer a correlation between experiencing barriers to utilizing prenatal care, with a focus on the client-service provider relationship, and the actual utilization of early and/or adequate prenatal care by participants. The birth outcomes indicated by the participant were also compared to their reported degree of early and adequate prenatal care received. Finally, the researcher drew conclusions based on the demographic factors of each

participants and the presence/absence of substance use in relation to their individual levels of utilized prenatal care and birth outcomes.

Findings

Demographics

The participants who completed the survey instrument were comprised of 14 low income women living in Northern Rhode Island. Two participants were pregnant, both currently in their second trimester. The other participants had live births to babies who are currently one week to twenty four weeks old. However, ten of the babies ranged from one to eight weeks old.

The racial makeup of the participants included 12 Caucasian and one Bi/multiracial. Participants' ages ranged from 17 to 39. Nine of the participants ranged in age from 20 to 27. Marital status included four married, five living with a significant other, and five single. The last grade of education achieved by participants ranged from nine to seventeen years, with a mean of 11.71 years. For five of the fourteen participants, this was their first child.

Monthly income ranged from zero to \$5,500 for participants. The instrument does not address family size for participants. Most monthly incomes ranged from zero to \$800, but two outliers report monthly incomes of \$5,000 and \$5,500. These same two participants indicated that they had private health insurance, along with a participant who brought in \$600 per month.

Insurance and Initiation of Prenatal Care

Eleven of the participants were receiving prenatal care through Rite Care's managed health care plan, while three had private health insurance. Twelve participants indicated that coverage began for them in the first trimester. However, one said the second trimester and another said they had no health insurance coverage. The participant that indicated she had no coverage also indicated that she started utilizing care in the second trimester and that she

attended six visits. This may explain that the participant was confused by the coverage question. The participant who stated that her health coverage began in the second trimester also learned that she was pregnant and initiated care in the second trimester. She too may have been confused by the coverage question.

All ten participants who reported learning of the pregnancy in the first trimester started receiving care in the first trimester. The same is true for the four participants who reported to have learned of the pregnancy in the second trimester. In other words, whenever each of the fourteen participants learned they were pregnant, they began utilizing prenatal care.

Number of Prenatal Visits Attended

The mean number of prenatal visits attended was 9.67, excluding the two who had not given birth yet. The number of visits attended range from three to twenty, with ten out of the twelve participants who gave birth ranging from three to twelve visits. In total, twelve participants were informed about the importance of receiving prenatal care, and two were not. The two who were not informed attended 12 and 15 visits.

Substance Use

Four participants indicated that they smoked during the pregnancy. Three smoked during all of the trimesters and one during the first and second trimesters. Two of these women indicated that they received substance related education, and two said that they did not. One of these participants answered “no” to whether or not she felt she could have benefitted from this education, and another left the same question blank. The one participant who only smoked during her first and second trimester was one who did receive substance related education from her provider.

Three participants indicated that they used illegal substances during pregnancy. One participant said that she used cocaine and the other two participants said that they used marijuana. One of the participants who indicated that she smoked marijuana during the second trimester answered to how many times per week of what kind of illegal substance by indicating, “Twice during pregnancy - Marijuana.” It is inconclusive whether or not she meant twice a week during pregnancy or twice total during pregnancy. All three of these participants indicated that they received substance related education from their providers.

Four participants reported that they drank during the pregnancy, but none of them continued drinking into the third trimester. Only one of these participants indicated that she did not receive substance related education, and she also did not think she could have benefitted from it. This was also one of the participants who indicated that she only drank before she knew she was pregnant. Specifically, she answered that she drank during the first trimester of her pregnancy before she found out that she was pregnant, but did not indicate how much she drank per week. Another participant who said she drank during her first trimester indicated that she had “three drinks, before [she] knew.”

Of the nine participants who did not receive substance related education from their provider, seven indicated that they did not feel they could have benefitted from it and one left the question blank. In addition, one participant who wrote that she did not receive substance related education answered ‘no’ to whether or not she could have benefitted by stating, “Not for me but for other girls I know.” Another participant who said she did not receive the education wrote “not an issue for me” in response to whether or not she could have benefited. This answer was indicated in the SPSS data as ‘no.’ These two participants did in fact answer ‘no’ to smoking, drinking, or using illegal substances during pregnancy. Another participant who answered ‘no’ to

receiving the education wrote in response to whether or not she could have benefitted by stating, “I had educated myself.” This answer was left blank in the SPSS data because she did benefit from substance education, but not from her provider.

Transportation

Ten of the participants indicated that they were able to find transportation to and from prenatal visits. Nevertheless, four participants indicated that they were “sometimes” not able to find transportation. Only one of the four participants “sometimes” able to find transportation received a RIPTA bus pass through the state of Rhode Island. One of the participants who sometimes found transportation and did not receive a RIPTA pass also indicated that her service provider’s location made it harder for her to get there for visits. The only other participant (two total) who indicated that her service provider’s location made it harder for her to get there for visits did not receive a RIPTA pass either, but said that she was able to find transportation. Four of the ten participants who indicated they were able to find transportation received a RIPTA pass. The fifth participant to receive a RIPTA bus pass reported “sometimes” finding transportation, as mentioned above.

Child Care

The participants were split even between those who had other children in their care and those who did not. Of the seven who did have children in their care, only two indicated that they were sometimes able to find trusted childcare and these two did not apply for childcare assistance through the state of Rhode Island. The other five participants said that they were able to find trusted childcare. Two participants applied for childcare assistance through the state of Rhode Island, but these two were participants that also indicated that they were able to find childcare. One of the participants who applied for childcare assistance qualified, was awarded

the full amount needed for her chosen provider, and did not need further assistance. The other did not qualify, still needed care, but was able to find care. This participant only indicated attending three prenatal visits. Two of the participants who did not apply for childcare assistance through the state indicated that they did not need further care, and three who did not apply left the question of whether or not they did need more care blank.

Client-Service Provider Relationship

All of the participants answered every question in the client service provider relationship section of the instrument. The participants answered the following questions based on a Likert scale in which “one” indicated “strongly disagree” and “five” indicated “strongly agree.” Twelve of the fourteen participants felt that they had an overall “good” relationship with their provider. Please see Table 1 in Appendix C for the frequencies for each aspect of the client-service provider relationship for all of the participants. Also, Table 2 of Appendix C displays frequencies for each measure of the client service provider relationship for those five participants that had at least adequate prenatal care. Finally, Table 3 of Appendix C displays frequencies for each measure of the client-service provider for the seven participants who received less than adequate care (intermediate, inadequate, severely inadequate).

Timeliness and Adequacy of Prenatal Care

For the purposes of drawing the main conclusions of this study, the researcher has only looked at the results for the 12 participants who already gave birth. For the two participants still in their second trimester, it is too soon to tell whether or not they will receive adequate prenatal care.

The researcher derived the scale for what is considered early and adequate prenatal care based on the Adequacy of Prenatal Care Utilization Index (APNCU), which includes inadequate,

intermediate, adequate, or adequate-plus care. The Index considers when care was initiated, and how adequately it was utilized thereafter based on the recommended number of visits each month and the length of the pregnancy (Kotelchuck, 1994, p.1414-1420). The researcher also added severely inadequate prenatal care to the scale used for this study. The researcher looked at the trimester in which care was initiated, and how early the baby was born to determine how adequately care was utilized. The number of visits that could have been attended by each participant whom either initiated care in the second trimester because they found out they were pregnant then, and/or whom had a baby born early had the number of “lost visits” added to their “utilized care.” The researcher had to assume they would have attended these visits and then compare the final number to the recommended number of visits (between 12 and 13). The researcher determined that zero to four visits would be severely inadequate, five to eight would be inadequate, nine to eleven intermediate, twelve to thirteen adequate, and fourteen or more adequate plus care.

Of the 12 participants who had given birth, three received intermediate and early care, while one received intermediate and late care. In addition, two participants received inadequate and late care. Also, one received severely inadequate and early care. Two participants received early and adequate care. Also, two participants received early and adequate plus care, while one participant received late adequate plus care. All of the participants who started care late, reportedly started late because they did not know they were pregnant earlier.

Intermediate Care Participants

Demographics

The four participants who received intermediate care had a mean age of 26. Two of these participants were married, one was living with a significant other, and the other was single. The

mean level of education for each of these participants was 11.25 and all of them were Caucasian. Two of these participants were having their first child. The mean number of actual visits attended by this group was 9.25. After adjusting for starting care late and/or giving birth early, the mean number of visits rose to 10.5.

Barriers, Substance Abuse, and Birth Outcomes

Of the three participants in this group that did find transportation, two received a RIPTA bus pass. Two of the participants in this group who were able to find transportation had other children in their care and neither reported having trouble finding child care. One had a RIPTA bus pass, but the other did not.

The only participant who reported “sometimes” finding transportation was also the only participant who smoked cigarettes or used an illegal substance; she did both. She did stop using the illegal substance after finding out she was pregnant. This participant also drank alcohol, but was accompanied by one more of the participants from this intermediate care group who reportedly only drank before she found out. This participant also had the baby with the lowest birth weight and the only premature baby of all twelve participants.

The only participant in this group who reported not having an overall good relationship with her service provider was the participant who smoked, drank and used an illegal substance. Specifically, she agreed to feeling judged. She also did not feel she was treated with dignity and respect, that her service provider was not sensitive to her needs, and that her privacy and confidentiality was not respected. She also did not feel that her service provider was approachable or made her feel comfortable, was polite, considerate, or cared about her satisfaction with the care she was receiving. This participant did however state that her service provider genuinely cared about the health of her and her baby and gave her enough time to ask questions and discuss

concerns. The participant was also confident in the accuracy of the information and care she was receiving.

In the qualitative section of the survey, this participant indicated that her service provider “took good care of [her] baby” and “helped [her] find a counselor” in reference to the most important qualities of her relationship with her service provider. In this participant’s answer to what made this relationship negative for her, she reported that her service provider, “listened to [her] mom more than [her]” and that the service provider “judged [her] for what [she] did before [she] found out [she] was pregnant.” Finally, this participant indicated that the most urgent reason for her not starting care in the first trimester or attending all of the suggested prenatal visits was that she “didn’t know [she] was pregnant until four and a half months.”

The only other baby born low birth weight of the twelve participants was also in this intermediate care group. This participant did not drink alcohol, smoke, or use an illegal substance. She also had a RIPTA bus pass, did not have other children in her care, and reported an overall good relationship with her service provider. As far as negative responses about her relationship with her service provider, she disagreed that the provider was on time for visits, gave her enough time to discuss concerns, listened to what she had to say, was flexible about scheduling visits, or showed concern for her satisfaction with the care she was receiving. This participant did, however, agree that she and her service provider worked together, the provider was sensitive to her needs, respected her privacy and confidentiality, genuinely cared about her and her baby’s health, offered explanations and answers that the participant understood. She did write however that “it was convenient to get there” to answer the most important quality of the relationship with her provider. She also wrote that it was a good relationship because she “got the care [she] needed.”

One of the participants that reported an overall good relationship with her service provider from this intermediate group wrote that the service provider was “knowledgeable and caring” and the client was “able to freely communicate concerns.” The final participant in this group wrote that her service provider “listened to [her] and [her] husband, “answered [her] questions,” and “she cared about what [she] thought.”

Inadequate and Severely Inadequate Care Participants

Demographics

Of the three participants who had either inadequate or severely inadequate care, it was not their first child for any and they were all Caucasian. The participants’ mean age was 21.3 years and mean grade of education was 11 years. One was married, one single, and one living with a significant other. The mean number of actual visits attended by this group is 3.33. After adjusting for starting care late and/or giving birth early, the mean number of visits rose to six.

Barriers, Substance Abuse, and Birth Outcomes

Only one participant in this group smoked cigarettes during pregnancy, and none used illegal substances or drank alcohol. The one participant from this group who smoked was “on the cusp” of delivering her baby prematurely, at three weeks early. This same participant also “sometimes” could not find transportation to visits, and did not have a RIPTA bus pass. This participant also applied for childcare assistance through the state, did not qualify, but reportedly worked this out and found child care

Another participant in the “inadequate and severely inadequate care” group had a RIPTA pass and said she was able to find transportation. She also did not have other children in her care. Another participant in this group was also able to find transportation, but did not have a RIPTA

bus pass. This participant had another child in her care, and “sometimes” found child care. She did not apply for assistance through the state.

Interestingly enough, these three participants all responded the same in the quantitative section of the client-service provider relationship. All three had positive responses on all specific measures of the relationship and overall good relationships as well. One participant did not fill out the qualitative section, but the two that did gave the following responses to the most important aspects of the relationship: “That she understands everything that I am going through and cares for me and my son” and “Me and my doctor, we get along fine. I talk to him about some things.” In reference to what made this a good relationship, they responded, “She just cares for me and is very helpful to answering questions I might have” and “It’s a good one with my doctor he is a nice guy.” Neither responded specifically to why they did not attend all the recommended visits.

Adequate and Adequate Plus Care Participants

Demographics

For the participants who had adequate or adequate care, the means age was 23.4. One of the participants was Bi/Multiracial, while the other four were Caucasian. For two of these participants, this was their first child, while for three participants it was not. Two of these participants were living with a significant other, one was married, and two were single. The average level of education was 12.4 years. The mean number of actual visits attended by this group is 13.8. After adjusting for starting care late and/or giving birth early, the mean number of visits rose to 14.8.

Barriers, Risk Factors, and Birth Outcomes

The only two out of all fourteen participants to report not being informed about the importance of prenatal care were within this group of receiving at least adequate prenatal care. The only participant in the group of five that at least received adequate care to respond to “sometimes” finding transportation received a RITPA bus pass. This participant also reported an overall good relationship with her service provider. She specifically wrote that “she really cared about what I wanted in my pregnancy, and she took time to answer my concerns.” This participant also wrote that her service provider was “caring, patient, and informative.” This participant also received childcare assistance through the state, which satisfied her childcare needs. This participant did not smoke cigarettes, drink, or use illegal substances. This participant’s baby was not born early or low birth weight.

Another participant who received at least adequate care indicated that she was able to find transportation, but wrote an interesting response: “In the beginning of my pregnancy I lived in NY and my provider was 35 minutes away by car. I had to take a cab which was \$50 there and back.” This participant indicated having an overall good relationship with her provider. She specifically wrote, “Trust, communication (understands my needs), overall good relationship” in response to what the most important qualities of the relationship were. She also wrote, “My provider was pleasant, she was easy to talk to, very understanding.” This participant did not smoke cigarettes, drink, or use illegal substances. This participant’s baby was not born early or low birth weight.

Another participant that at least received adequate care stated that the location made it harder for her to get there, but that she found transportation. She did not have other children in her care. This participant felt that she had an overall good relationship with her service provider.

She specifically responded, “They were nice and helpful.” The participant smoked cigarettes, but did not use an illegal substance or drink alcohol. In addition, she did not have a premature or low birth weight baby.

Another participant in this group was able to find transportation to visits and received a RIPTA pass. She did not apply for childcare assistance through the state, but did indicate “sometimes” being able to find childcare. It is noteworthy that this participant answered “no opinion” for every client-service provider relationship quantitative question, but then indicated that she and her service provider did not have an overall good relationship. She also wrote in the qualitative section that she “didn’t think she (her service provider) listened to me.” The most important quality of her relationship with her service provider was that the service provider was “Close to [her] house.” This client indicated however that she attended all of her prenatal visits, and “Went when [she] found out [she] was pregnant.” This participant used an illegal substance and drank alcohol during the pregnancy. She continued to do so after she found out, but stopped in the third trimester. She did not smoke cigarettes. Her baby was born on the cusp of premature (three weeks early), but was not low birth weight. In fact, her baby was the second highest birth weight.

The final participant in this group found transportation, had child care, and reported a good overall relationship with her provider. She indicated that the most important qualities were, “Trust, respect, and just a great person who you could talk to.” In reference to what made this a good relationship, she wrote, “Trust, cared about my health and the health of my baby.” This participant did not smoke cigarettes, drink, or use illegal substances. This participant’s baby was not born early or low birth weight.

Both women in their second trimester have utilized early and adequate care so far. One participant indicated for the most important qualities of their relationship that, “She was my provider for my three other children. We always had a good relationship.” The other wrote, “Very flexible because I work and go to school, convenient to my house, and she tried to answer all my questions.” In terms of what helped this to be a good relationship for both of them, one wrote, “She cared about my situation and stress related to my other kids being in DCYF care and got me a psychiatrist at Women and Infants too.” The other wrote that she “felt comfortable.”

Finally, one of these participants indicated that, “Sometimes transportation was an issue but my case managers went with me to most and helped me understand what the doctor was saying” to answer what her most urgent reasons were for not attending care earlier and/or all recommended visits. This participant attended 11 visits so far in her second trimester, which is more than the usual recommended amount, and started care early.

Conclusion

The purpose of this study was to address barriers low income women living in Rhode Island face to utilizing prenatal care. The focus of these barriers was on transportation, child care, and the client-service provider relationship. The specific focus was on various measures of the client-service provider relationship. The study looked at when and how often participants utilized care, and compared that to the barriers they indicated facing. Participants’ levels of utilized care were compared to their birth outcomes. The study also looked at participants’ substance use and how this affected their client-service provider relationships and birth outcomes.

Start of Care

As cited by the Commonwealth Fund (2006), the CDC (2000) reports that one half of the women who started prenatal care late said they would liked to have started earlier, but many did not because they did not know they were pregnant. This literature supports the findings in this study because the four participants to start care late in the second trimester reported not knowing they were pregnant until their second trimester.

Age

The mean age of participants to receive inadequate or severely inadequate care was the lowest at 21.3 years. This data is supported by Sword (2003) as cited by Ahmend, Gies, & Knaap (n.d), Regenstein, Cummings, & Huang, (2005), Rosenberg (2004), and “Healthy People 2010” who all note that the younger the woman, the more likely she is to not receive early and adequate prenatal care. Nevertheless, “Healthy People 2010” specifically cite a risk for mothers 15 and under. The youngest participant in this study is 17 years old. However, the mean age for participants who received adequate and adequate plus care was in fact lower than the intermediate care group.

Education

The mean level of education achieved for the participants who received adequate or adequate plus care were the highest, followed by those in the intermediate group. Those participants in the inadequate or severely inadequate group achieved the lowest levels of education. This finding concurs with that of Regenstein, Cummings, & Huang, (2005). Specifically, Regenstein, Cummings, & Huang, (2005) found that participants who received late or no prenatal care were more likely to have lower levels of education.

Transportation

Only one out of the three participants “sometimes” able to find transportation received a RIPTA bus pass. Four out of ten of the participants who were able to find transportation to and from prenatal visits received a RIPTA bus pass. The availability of the RIPTA bus pass for women in need is supported by information put out by the Rhode Island Public Transit Authority (2008).

The findings from this study still speak to the barrier of transportation in the sense that a greater percentage of the participants who found transportation received help from the state, while a smaller percentage of those who “sometimes” found transportation received help from the state. This data is supported by Regenstein, Cummings, & Huang (2005), who indicate that transportation was among one of the two most commonly cited barriers to utilizing early and adequate prenatal care among participants. Transportation as a barrier to utilization of prenatal care is also supported in the literature by Ahmend, Gies, & Knaap (n.d) and Pistella, Bonati, and Mihalic (1999).

Childcare

Only a small percentage, two out of fourteen participants indicated that they could “sometimes” find childcare. Of these two however, they did not apply for childcare assistance. One participant who indicated being able to find transportation however, did apply for childcare assistance through the state and did not qualify. She indicated that she still needed childcare, but that she was able to find it. The barrier of childcare is supported in the literature by Sword (2003) as cited by Ahmend, Gies, & Knaap (n.d.) and Pistella, Bonati, and Mihalic (1999). The Rhode Island Department of Human Services (2008) puts out information that supports the availability for childcare service for those who qualify.

Client-Service Provider Relationship

The 12 participants who indicated they had an overall good relationship with their service provider most consistently stated that a sense of trust, good communication, feeling listened to, the service provider's attitude (nice and made the participant feel comfortable), and the service provider caring about the client and her baby were most important qualities to foster a good relationship. As cited by Ahmend, Gies, & Knaap (n.d), Sword (2003) states that service providers' perceptions can be a barrier to utilizing care. Most of these participants happened to feel that they were cared about and listened to, so their levels of care received do not seem to be a result of their relationship to their service provider. Moore & Hepworth (1994) and Higgins, Murray, & Williams (1994), cited by Handler, Rosenburg, Raube, & Michele (1998), note that client satisfaction appears to impact prenatal care utilization (Handler, Rosenburg, Raube, & Michele, 1998, p.679). However, of the two participants to indicate that they did not have an overall good relationship with their service provider, one received intermediate care and the other received adequate plus care. The sample size of this study is too small to draw the conclusion that this data conflicts with the literature cited above.

The two participants who indicated that they did not have an overall good relationship with their service provider, both said in the qualitative section that they did not feel that their service provider listened to them. The good qualities they indicated related to the provider's proximity to the participant's house, the good care the provider gave the baby, and the counselor the provider found for the participant. One of these participants answered "no opinion" to the quantitative questions addressing specific measures, but the other answered them (see above).

Gross, Zyzanski, Borawski, Cebul, & Strange (1998) point out that patients assert more satisfaction with services when they perceive their physician as being caring, sensitive, and empathetic. This seems to be consistent with the findings of this study as well.

Martin (2006) believes that in recognizing a “good doctor,” patients consider timeliness, accuracy, courtesy, and outcomes of the service and information afforded (Quinn, et al., 2006). The participants in this study weighed the doctor’s level of caring and listening to them much heavier than timeliness, or even fully understanding the answers to their questions. Handler, Rosenburg, Raube, & Michele (1998) found that the major characteristics associated with satisfaction with prenatal care were whether the provider explained procedures, waiting time before visits, and the availability of additional services. The results of this study seem to contradict this literature as well.

However, in addition, communication with the clients’ service providers was rated as the most important variable that contributed to their satisfaction with care (Handler, Rosenburg, Raube, & Michele, 1998). This finding does seem to be consistent with this study because feeling listened to, informed, and understood was important to participants. Negative feelings about the client-service provider relationship for those that took issues with certain measures had less to do with their actual interaction. Service providers not being on time or offering explanations that the participants did not fully understand were the most commonly negative answers to the quantitative measures for those who still felt they had an overall good relationship with their service providers.

Substance Abuse and Client-Service Provider Relationship

Both of these participants who did not indicate an overall good relationship with their service providers used an illegal substance and drank alcohol. One of them also smoked

cigarettes. The other three participants who smoked cigarettes during pregnancy did not indicate that they felt judged by their service providers. The same is true for the third and only other participant who used an illegal substance. She has not had her baby yet, but she has had the same service provider for her previous three children and always had a good relationship. Also, it is inconclusive how much she used marijuana as she wrote, “twice during pregnancy-marijuana” to answer how much per week and of what kind of illegal substance. The other two participants who drank alcohol during pregnancy indicated that they only drank before they knew they were pregnant. These two participants did not feel judged by their service providers.

Quinn, et al. (2006) conducted a study to address how at-risk pregnant women are perceived and treated by service providers. Quinn, et al. (2006) found that one participant in particular admitted to using drugs during her pregnancy and was stigmatized with this up until and during delivery. This is consistent with some of the findings in this study which indicate that the only two participants who did use an illegal substance were also the only two to feel that they did not have an overall good relationship with their service provider.

Birth Outcomes, Barriers, and Substance Abuse

One of the two participants to give birth to a low birth weight baby did not experience any of the barriers to transportation or child care, or report a bad client-service provider relationship. She also did not smoke cigarettes (all three trimesters), drink, or use an illegal substance. Nevertheless, the only participant who drank, smoked cigarettes, *and* used an illegal substance was the only one to have a premature baby, and the lowest weight of the two who were born low birth weight. This participant did not report having an overall good relationship with her service provider, did not have other children in her care, and reported “sometimes” finding transportation. This participant utilized late and intermediate care.

One of the two participants “on the cusp” of prematurity at three weeks early was also a smoker all three trimesters. Her baby was born at 6.13 pounds, not very far from low birth weight at 5.8 pounds or less. She also reported “sometimes” finding transportation. She had other children in her care, and reported finding childcare despite not qualifying for state childcare assistance. This participant utilized late and inadequate care.

The final smoker of these fourteen participants smoked all three trimesters and delivered her baby at 6.2 pounds, born one week early. This participant found transportation, did not have another child, and reported a good overall relationship with her provider.

The literature supports that smoking increases the risk of low birth weight and prematurity. Frank et al. (2004), as cited in Rosenberg (2004), found that women who smoked were more likely to have a low birth weight baby. Healthy People 2010 contend that alcohol, tobacco, and illegal substance use during pregnancy significantly increase the risk for these poor infant outcomes (“Healthy People 2010,” 2000). Martin et al. (2006) asserts that smoking nearly doubles the risk of having a low birth weight baby (“March of Dimes,” 2008). In addition, if a woman stops smoking by the end of her second trimester, she is no more likely to have a low birth weight baby than a woman who never smoked. Ahmend, Gies, & Knaap (n.d.) also note that drinking alcohol and smoking is more likely to produce poor birth outcomes.

One participant who used an illegal substance and drank alcohol during her first and second trimesters had the second highest birth weight baby and her baby was one week early. She found transportation, sometimes found child care, and did not report an overall good relationship with her provider. This participant utilized late adequate plus care and did not smoke cigarettes.

Regardless of the risks generated by this participant drinking alcohol and using an illegal substance, the following literature supports her positive birth outcome relative to her not smoking and utilizing adequate plus care. Gary-McCormick, et al. (2000) found that participants who attended the higher number of visits delivered infants with significantly greater gestational ages and higher birth weights. Quinn, Albrecht, Mahan, Bell-Ellison, Akintobi, Reynolds, & Jeffers (2006) also note that women who receive early and adequate care are less likely to give birth to a low birth weight infant or face maternal or fetal death in reference to studies conducted by Amini, Catalano, & Amm, (1996), Brett, Schoendorf, & Kiely, (1994), and Vintzileos, Anath, Smulian, Scorza, & Knuppel (2002).

Limitations and Strengths

Limitations of this study include that all but one participant was Caucasian and there is a small sample population. A larger sample size may generate different conclusions. The sample is not representative of all low-income women living in Rhode Island. The study also did not address whether or not the participants wanted their individual pregnancies, which the literature states could have affected the participants' individual levels of utilized care.

The survey instrument also could have been clearer, as participants seemed confused by some of the wording, and some technical errors in the survey such as leaving out one of the set of boxes to check off "yes" or "no" in the child care potential barrier section. Also, the substance abuse section did not ask how much was consumed; only the frequency each week was addressed. The income section did not address family size, to be sure that all participants were in fact low income. The survey also should have asked if the participant lived in an urban or rural area, in relation to the potential transportation barrier.

The client-service provider relationship section could have been more mixed with questions that required positive and negative responses to be sure that participants were not just circling down the page. This section also could have included asking participants to rank how important each aspect of the relationship addressed was to them. This would have made a better assessment of client satisfaction possible for the researcher.

Strengths of the study include that the demographics, potential barriers, and birth outcomes addressed were clearly derived from what the literature indicated. Also, there was a quantitative as well as a qualitative section, which extensively covered these areas. The focus of the client-service provider relationship covered different aspects of the relationship as well. This helped the researcher to assess what areas need improvement for service providers.

Implications for Social Work Practice

Advocacy and direct care to foster and increase utilization of prenatal care is highly applicable to social work. As cited by Ahmend, Gies, & Knaap (n.d.), Sword (2003) reports, “For most of the women in the study, the interaction between them and the health care delivery system mirrored their marginalized and disempowered positions in the society” (Ahmend, Gies, & Knaap, n.d., pp.4-5). Social workers fight to empower those marginalized in society facing discrimination and victimization. Social workers should act as advocates for this marginalized population of women who are experiencing barriers to receiving prenatal care, such as transportation and child care, and are resistant to utilizing care because of disrespectful and unfair treatment delivered by their service providers.

Involved in such a task, social workers will be required to call “upon their knowledge and skills as clinical social workers, group workers, community organizers, researchers and administrators” (Pistella, Bonati, Mihalic, 1999). In direct care, social workers can participate in

programs that enhance the quality of prenatal care and reach out to at-risk pregnant women. For instance, Medicaid programs are providing enhanced prenatal care services such as case management, nutritional and psychosocial counseling, and home-visiting programs. As cited by the Commonwealth Fund (2006), Baldwin et al. (1998) and Ricketts et al. (2005) report that comprehensive programs such as these which target high-risk women can help to improve birth outcomes including low birth weight. As cited by Bedics (1994), Buescher & Ward (1992) assert that comprehensive prenatal care including psychosocial and environmental assessments, case management, health education, and referrals to health and human services have proven to reduce low birth weight outcomes for low income women.

An enhanced prenatal care program known as “Healthy Beginnings” reaches out to high risk pregnant women to improve utilization and comprehensiveness of prenatal care. Healthy Beginnings, implemented in late 1997, has proven to decrease Neonatal Intensive Care Unit admission rates from 1998-2001. In addition, the drop was associated with cost savings, most prominently in 2001 (Stankaitis, Brill, & Walker, 2005, p.171). Specifically, the community based BabyLove Program, under the blanket of Healthy Beginnings, employs a prenatal nurse coordinator who refers pregnant enrollees considered to be high risk due to psychosocial problems (Stankaitis, Brill, & Walker, 2005, p.168). Stankaitis, Brill, & Walker (2005) have inferred from medical literature and discussion with other Medicaid managed care programs, that any improvement in birth outcomes for an overall population can usually be accredited to a combination of many interventions.

Social workers act as supervisors in this program, and are vital in the achievement of effective outreach. The BabyLove Program provides home-visits, organizes transportation, connects high-risk pregnant women to support, social work, and other needed services. Social

workers can also work as clinical staff in addressing social problems and with women experiencing depression during pregnancy (Stankaitis, Brill, & Walker, 2005, p.168).

In many areas of need for low income, at risk pregnant women, social workers can take part in the delivery team as counselors, supervisors, educators, or brokers. Brokerage would take place between pregnant women and available community resources, such as WIC, financial support, and other social services (Ahmend, Gies, & Knaap, n.d.). Outreach workers may connect high-risk pregnant women to medical, mental health, chemical dependency, community based, governmental, and social services as needed (Stankaitis, Brill, & Walker, 2005, p.168).

Counselors can help pregnant women cope with stress that can lead to poor pregnancy outcomes, and deal with issues specific to each client that may be affecting the health of the mother and baby (Ahmend, Gies, & Knaap, n.d.). Licensed clinical social workers may work with high-risk pregnant women experiencing depression or other mental health issues. Social workers may also be able to work with high-risk pregnant women on dealing with issues that prenatal service providers do not address, such as lack of housing or current domestic violence relationships. Also, Stankaitis, Brill, & Walker (2005) found that psychosocial or social isolation problems are strongly correlated with poor birth outcomes. This led the BabyLove Program managers to increase the prominence of outreach and social work interventions delivered with cultural competence (Stankaitis, Brill, & Walker, 2005, p.171). In addition, “Healthy People 2010” supports a comprehensive method of care, and emphasizes that counseling should be culturally appropriate and sensitive to the population begin served.

Educators can teach mothers good nutrition, exercise habits, and how/why to avoid smoking, drinking, and illicit drug use. They can educate pregnant women about potential

problems that arise during pregnancy and appropriate responses, parenting skills, and children's developmental milestones (Ahmend, Gies, & Knaap, n.d.).

Social workers could also serve clients through substance abuse counseling. Vega and Barclay (2008) report that women who screened or assessed positive and received substance abuse treatment as part of an Early Start program had only slightly more negative, or even similar outcomes as compared to those women who initially screened negative for substance use. Compared to the women who screened or assessed positive, but did not receive treatment, the women who screened or assessed positive and participated in treatment had lower rates of negative birth outcomes. Substance abusing women working with social workers would also have a safe place to discuss whether or not they feel judged by their provider, and potentially work through this to increase utilization of prenatal care.

Among Early Start specialists are licensed clinical social workers. They typically use motivational therapy, cognitive behavioral therapy, and psychodynamic therapy to work with women abusing substances, or at high risk for substance abuse. These visits concur with regularly scheduled prenatal visits (Vega & Barclay, 2008). Social workers may also be trained in employing smoking cessation strategies with pregnant women, delivered in a culturally competent manner (Stankaitis, Brill, & Walker, 2005, p.168).

Another way that social workers can help is through utilizing essential outreach strategies such as grass roots movements. These grassroots movements are designed to reduce barriers to accessing prenatal care by addressing issues specific to the demographics and culture of the population embracing the movement. Community organizing is vital in this process, and when done correctly, communities "take the floor" to define their health problems from their own perspectives and develop interventions that are realistically able to meet their needs. As

referenced by Ahmend, Gies, & Knaap, (n.d.), Jewell and Russell (2000) assert that “organizing communities to identify and deal with their health-related issues is the only appropriate means of improving health status” (p.9). This recognition of using cooperative approaches to problem-solve, given limited resources and the complexity of social environments, is growing (Bedics, 1994).

Implications for Social Work Policy and Research

On the macro level, social workers are able to help Medicaid and states children’s health insurance programs to improve prenatal care services further by becoming involved in social policy and legislation advocacy supporting outreach and educational programs (Commonwealth Fund, 2006). Social workers can also contribute by conducting research, creating research designs, and evaluating and analyzing the research (Bedics, 1994). These studies will add to a knowledge base that may be used to defend the need for reaching out to low income pregnant mothers and improving prenatal service delivery through programs that are proven to be effective. Measuring and analyzing the cost effectiveness of managed care programs for example is essential because resources are often limited. It is vital to know what is working in terms of the return rate on the investment of services in a given community (Stankaitis, Brill, & Walker, 2005, p.169).

As part of managed care organizations, social workers may take on roles in quality assurance, utilization management, network development, and operations management. Social workers bring the unique perspective of seeing the person-in-environment and analyzing patient needs based on bio-psycho-social elements, while effectively balancing patient and organizational needs (“An Evaluation of Medicaid Managed Care,” 1995). With the delivery of

certain interventions, a client centered system of care is implemented, and social workers are professionals with the ability to make sure this is achieved (Pistella, Bonati, Mihalic, 1999).

Low income women marginalized in society are discriminated against and disadvantaged when it comes to the delivery of prenatal care. When an expectant mother experiences barriers prohibiting her from utilizing, or reducing her willingness to utilize, prenatal care, this negatively affects her health and the health of her developing baby. The barriers low-income women face in the utilization of early and adequate prenatal care present many implications for social work.

Appendix B: Consent Form

I am a student pursuing a Bachelor degree in Social Work. I am inviting you to participate in a study that will examine the barriers to utilizing prenatal care for low income women in Rhode Island. The information gathered through the survey will be reported in my senior thesis.

Women living in Rhode Island who are pregnant and have given birth in Rhode Island within the past year will be recruited for this study. There is no intended monetary compensation involved for participating in this study. The potential reward of knowing that the participant has contributed to a knowledge base that will help women receiving prenatal care in the future is the only benefit.

Confidentiality of the participants will be protected by separating this consent form from the survey instrument upon receiving them, and storing them separately. After the data is obtained, this consent form will be shredded and all indentifying information linked to the answers provided in the participant's survey will be destroyed. I will be the only person to receive your consent form and separately read and gather your information included in the survey for the "findings" part of my thesis. A brief excerpt from individuals' answers to the open-ended questions may be included in this thesis, but these excerpts will be strictly anonymous.

Although your input would be greatly appreciated, your participation in this study is absolutely voluntary. You may withdraw from this study at any point in time until I, the researcher, have removed your consent form from the survey instrument.

YOUR SIGNATURE INDICATES THAT YOU HAVE READ AND UNDERSTAND THE ABOVE INFORMATION AND THAT YOU HAVE HAD THE OPPORTUNITY TO ASK QUESTIONS ABOUT THE STUDY, YOUR PARTICIPATION, AND YOUR RIGHTS AND THAT YOU AGREE TO PARTICIPATE IN THE STUDY.

Thank you for participating in this study.

(Name)

(Date)

Nicole Lescarbeau
nlescarb@providence.edu

PLEASE KEEP A COPY OF THIS FORM FOR YOUR RECORDS.

Appendix C

Table 1: Frequencies for each aspect of the client-service provider relationship for all participants.

Culture and Beliefs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	6	42.9	42.9	42.9
	agree	5	35.7	35.7	78.6
	strongly agree	3	21.4	21.4	100.0
	Total	14	100.0	100.0	

Judgment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	4	28.6	28.6	28.6
	disagree	7	50.0	50.0	78.6
	no opinion	2	14.3	14.3	92.9
	agree	1	7.1	7.1	100.0
	Total	14	100.0	100.0	

Worked Together

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	3	21.4	21.4	21.4
	agree	7	50.0	50.0	71.4
	strongly agree	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

Dignity and Respect

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	7.1	7.1	7.1
	no opinion	2	14.3	14.3	21.4
	agree	7	50.0	50.0	71.4
	strongly agree	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

Sensitive to Needs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	7.1	7.1	7.1
	no opinion	2	14.3	14.3	21.4
	agree	7	50.0	50.0	71.4
	strongly agree	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

Privacy and Confidentiality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	7.1	7.1	7.1
	no opinion	2	14.3	14.3	21.4
	agree	7	50.0	50.0	71.4
	strongly agree	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

Genuinely Cared

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	2	14.3	14.3	14.3
	agree	8	57.1	57.1	71.4
	strongly agree	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

Approachable and Comforting

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	7.1	7.1	7.1
	no opinion	2	14.3	14.3	21.4
	agree	7	50.0	50.0	71.4
	strongly agree	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

Timeliness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	7.1	7.1	7.1
	disagree	3	21.4	21.4	28.6
	no opinion	4	28.6	28.6	57.1
	agree	4	28.6	28.6	85.7
	strongly agree	2	14.3	14.3	100.0
	Total	14	100.0	100.0	

Polite and Considerate

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	7.1	7.1	7.1
	no opinion	3	21.4	21.4	28.6
	agree	6	42.9	42.9	71.4
	strongly agree	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

Time to Ask Questions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	7.1	7.1	7.1
	no opinion	1	7.1	7.1	14.3
	agree	8	57.1	57.1	71.4
	strongly agree	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

Listened

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	7.1	7.1	7.1
	no opinion	2	14.3	14.3	21.4
	agree	7	50.0	50.0	71.4
	strongly agree	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

Confident in Info and Care

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	2	14.3	14.3	14.3
	agree	7	50.0	50.0	64.3
	strongly agree	5	35.7	35.7	100.0
	Total	14	100.0	100.0	

Understood Explanations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	3	21.4	21.4	21.4
	no opinion	3	21.4	21.4	42.9
	agree	5	35.7	35.7	78.6
	strongly agree	3	21.4	21.4	100.0
	Total	14	100.0	100.0	

Flexibility

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	7.1	7.1	7.1
	no opinion	4	28.6	28.6	35.7
	agree	6	42.9	42.9	78.6
	strongly agree	3	21.4	21.4	100.0
	Total	14	100.0	100.0	

Concern for Client Satisfaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	2	14.3	14.3	14.3
	no opinion	2	14.3	14.3	28.6
	agree	6	42.9	42.9	71.4
	strongly agree	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

Recommend to loved one

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	4	28.6	28.6	28.6
	agree	6	42.9	42.9	71.4
	strongly agree	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

Good Overall Relationship

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	12	85.7	85.7	85.7
	no	2	14.3	14.3	100.0
	Total	14	100.0	100.0	

Table 2: Frequencies for each measure of the client service provider relationship for those five participants that had at least adequate prenatal care.

Culture and Beliefs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	3	60.0	60.0	60.0
	strongly agree	2	40.0	40.0	100.0
	Total	5	100.0	100.0	

Judgment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	3	60.0	60.0	60.0
	disagree	1	20.0	20.0	80.0
	no opinion	1	20.0	20.0	100.0
	Total	5	100.0	100.0	

Worked Together

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	1	20.0	20.0	20.0
	agree	1	20.0	20.0	40.0
	strongly agree	3	60.0	60.0	100.0
	Total	5	100.0	100.0	

Dignity and Respect

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	1	20.0	20.0	20.0
	agree	1	20.0	20.0	40.0
	strongly agree	3	60.0	60.0	100.0
	Total	5	100.0	100.0	

Sensitive to Needs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	1	20.0	20.0	20.0
	agree	1	20.0	20.0	40.0
	strongly agree	3	60.0	60.0	100.0
	Total	5	100.0	100.0	

Privacy and Confidentiality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	1	20.0	20.0	20.0
	agree	1	20.0	20.0	40.0
	strongly agree	3	60.0	60.0	100.0
	Total	5	100.0	100.0	

Genuinely Cared

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no opinion	1	20.0	20.0	20.0
agree	1	20.0	20.0	40.0
strongly agree	3	60.0	60.0	100.0
Total	5	100.0	100.0	

Approachable and Comforting

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no opinion	1	20.0	20.0	20.0
agree	1	20.0	20.0	40.0
strongly agree	3	60.0	60.0	100.0
Total	5	100.0	100.0	

Timeliness

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid disagree	1	20.0	20.0	20.0
no opinion	2	40.0	40.0	60.0
strongly agree	2	40.0	40.0	100.0
Total	5	100.0	100.0	

Polite and Considerate

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no opinion	1	20.0	20.0	20.0
agree	1	20.0	20.0	40.0
strongly agree	3	60.0	60.0	100.0
Total	5	100.0	100.0	

Time to Ask Questions

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid no opinion	1	20.0	20.0	20.0
agree	1	20.0	20.0	40.0
strongly agree	3	60.0	60.0	100.0
Total	5	100.0	100.0	

Listened

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	1	20.0	20.0	20.0
	agree	1	20.0	20.0	40.0
	strongly agree	3	60.0	60.0	100.0
	Total	5	100.0	100.0	

Confident in Info and Care

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	1	20.0	20.0	20.0
	agree	1	20.0	20.0	40.0
	strongly agree	3	60.0	60.0	100.0
	Total	5	100.0	100.0	

Understood Explanations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	2	40.0	40.0	40.0
	agree	1	20.0	20.0	60.0
	strongly agree	2	40.0	40.0	100.0
	Total	5	100.0	100.0	

Flexibility

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	2	40.0	40.0	40.0
	agree	1	20.0	20.0	60.0
	strongly agree	2	40.0	40.0	100.0
	Total	5	100.0	100.0	

Concern for Client Satisfaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	1	20.0	20.0	20.0
	agree	1	20.0	20.0	40.0
	strongly agree	3	60.0	60.0	100.0
	Total	5	100.0	100.0	

Recommend to loved one

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	2	40.0	40.0	40.0
	strongly agree	3	60.0	60.0	100.0
	Total	5	100.0	100.0	

Good Overall Relationship

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	4	80.0	80.0	80.0
	no	1	20.0	20.0	100.0
	Total	5	100.0	100.0	

Table 3: Frequencies for each measure of the client-service provider for the seven participants who received less than adequate care (intermediate, inadequate, severely inadequate).

Culture and Beliefs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	2	28.6	28.6	28.6
	agree	4	57.1	57.1	85.7
	strongly agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Judgment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	14.3	14.3	14.3
	disagree	4	57.1	57.1	71.4
	no opinion	1	14.3	14.3	85.7
	agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Worked Together

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	2	28.6	28.6	28.6
	agree	4	57.1	57.1	85.7
	strongly agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Dignity and Respect

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	14.3	14.3	14.3
	no opinion	1	14.3	14.3	28.6
	agree	4	57.1	57.1	85.7
	strongly agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Sensitive to Needs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	14.3	14.3	14.3
	no opinion	1	14.3	14.3	28.6
	agree	4	57.1	57.1	85.7
	strongly agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Privacy and Confidentiality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	14.3	14.3	14.3
	no opinion	1	14.3	14.3	28.6
	agree	4	57.1	57.1	85.7
	strongly agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Genuinely Cared

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	1	14.3	14.3	14.3
	agree	5	71.4	71.4	85.7
	strongly agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Approachable and Comforting

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	14.3	14.3	14.3
	no opinion	1	14.3	14.3	28.6
	agree	4	57.1	57.1	85.7
	strongly agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Timeliness

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	14.3	14.3	14.3
	disagree	1	14.3	14.3	28.6
	no opinion	1	14.3	14.3	42.9
	agree	4	57.1	57.1	100.0
	Total	7	100.0	100.0	

Polite and Considerate

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	14.3	14.3	14.3
	no opinion	1	14.3	14.3	28.6
	agree	4	57.1	57.1	85.7
	strongly agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Time to Ask Questions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	14.3	14.3	14.3
	agree	5	71.4	71.4	85.7
	strongly agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Listened

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	14.3	14.3	14.3
	no opinion	1	14.3	14.3	28.6
	agree	4	57.1	57.1	85.7
	strongly agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Confident in Info and Care

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	1	14.3	14.3	14.3
	agree	5	71.4	71.4	85.7
	strongly agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Understood Explanations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	14.3	14.3	14.3
	no opinion	1	14.3	14.3	28.6
	agree	4	57.1	57.1	85.7
	strongly agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Flexibility

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	14.3	14.3	14.3
	no opinion	1	14.3	14.3	28.6
	agree	4	57.1	57.1	85.7
	strongly agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Concern for Client Satisfaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	2	28.6	28.6	28.6
	no opinion	1	14.3	14.3	42.9
	agree	3	42.9	42.9	85.7
	strongly agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Recommend to loved one

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no opinion	2	28.6	28.6	28.6
	agree	4	57.1	57.1	85.7
	strongly agree	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

Good Overall Relationship

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	6	85.7	85.7	85.7
	no	1	14.3	14.3	100.0
	Total	7	100.0	100.0	

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