



January 1999

HIV-infected women and motivation to add children to their families

R.L. Sowell

Kenneth D. Phillips

University of South Carolina, kphill22@utk.edu

T.R. Misener

Follow this and additional works at: http://trace.tennessee.edu/utk_nurspubs



Part of the [Critical Care Nursing Commons](#)

Recommended Citation

Sowell, R. L., Phillips, K. D., & Misener, T. R. (1999). HIV-infected women and motivation to add children to their families. *Journal of Family Nursing*, 5(3), 316-331.

This Article is brought to you for free and open access by the Nursing at Trace: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Nursing Publications and Other Works by an authorized administrator of Trace: Tennessee Research and Creative Exchange. For more information, please contact trace@utk.edu.

Journal of Family Nursing

<http://jfn.sagepub.com/>

HIV-Infected Women and Motivation to Add Children to Their Families

Richard L. Sowell, Kenneth D. Phillips and Terry R. Misener
Journal of Family Nursing 1999 5: 316
DOI: 10.1177/107484079900500305

The online version of this article can be found at:
<http://jfn.sagepub.com/content/5/3/316>

Published by:



<http://www.sagepublications.com>

Additional services and information for *Journal of Family Nursing* can be found at:

Email Alerts: <http://jfn.sagepub.com/cgi/alerts>

Subscriptions: <http://jfn.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Citations: <http://jfn.sagepub.com/content/5/3/316.refs.html>

HIV-Infected Women and Motivation to Add Children to Their Families

Richard L. Sowell, Ph.D., R.N., FAAN

Kenneth D. Phillips, Ph.D., R.N.
University of South Carolina

Terry R. Misener, Ph.D., R.N., FAAN
University of Portland

The purpose of this descriptive study was to identify how susceptible women perceived their babies to be to perinatal transmission of HIV and to examine factors that influence a woman's motivation to have a baby. The sample consisted of 45 African American women living in South Carolina and Georgia. Data were collected during face-to-face interviews. A researcher-developed scale, Motivation for Childbearing in HIV-Positive Women, provided reliable and valid data on factors that motivated or deterred a woman's decision to have a baby. This study supported prior findings that HIV status is not the most important influence on a woman's reproductive decision making. Women identified significant others (husbands and sex partners) and other family members as those most important in making the decision to add a child to their family. The findings of this study underscore the importance of family in childbearing decisions by HIV-positive women.

Women of reproductive age constitute one of the fastest growing groups being diagnosed with HIV/AIDS according to the Centers for Disease Control and Prevention (CDC) (CDC, 1997; Klirnsfeld, 1998).

Address all correspondence to Richard L. Sowell, Ph.D., R.N., FAAN, College of Nursing, University of South Carolina, Columbia, SC 29208; e-mail: richard.sowell@sc.edu. The authors would like to acknowledge and thank the Nursing Research Program, Clinical Applications Research, Glaxo Wellcome, Inc., who funded this study.

© JOURNAL OF FAMILY NURSING, 1999, 5(3), 316-331
© 1999 Sage Publications, Inc.

HIV infection has risen fourfold in the developed world among women in their childbearing years (CDC, 1997). Globally, 1,000 babies become infected with HIV every day, and 3 million children have been infected with HIV since the pandemic began (Fowler, 1997). Among women who are HIV infected in the United States, poor women who are members of ethnic minorities and women living in the southern United States are disproportionately represented in HIV/AIDS cases (CDC, 1997; Lam & Lui, 1994; Russell & Smith, 1998; Solomon et al., 1998). Georgia and South Carolina are two states in the South in which the incidence of HIV/AIDS in women is increasing exponentially (CDC, 1997). The potential for perinatal transmission of HIV to a baby during pregnancy means that HIV is not only a serious threat to the health of women but also to their babies. With the growing number of women being diagnosed as HIV infected, HIV/AIDS has increasingly become a disease of families.

The risk of transmitting HIV to a baby might be expected to deter women who are HIV infected from having children. However, there is empirical evidence that HIV status is not the deciding factor in a woman's decision to have a baby or to terminate a pregnancy if she should become pregnant (Arras, 1990; Balanon, Fordyce, & Stoneburner, 1990; Cremieux et al., 1993; Johnstone et al., 1990; Kline, Strickler, & Kempf, 1995; Murphy, Mann, Keefe, & Rotheram-Borus, 1998; Sowell & Misener, 1997). Many women who have been diagnosed as being HIV infected continue to become pregnant and give birth to HIV-exposed babies. Yet, there remains little understanding of factors that motivate or deter women with HIV/AIDS in making the decision to have a baby. If health care professionals are to provide needed information concerning perinatal transmission of HIV and support women in their reproductive decisions, there is a need for greater insight into factors influencing these decisions. Therefore, the purpose of this descriptive, cross-sectional study was twofold. First, the study sought to identify how susceptible women thought their babies were to becoming HIV infected during pregnancy. Second, the study examined factors that influence HIV-infected women's motivation to add a child to their family.

BACKGROUND

There is growing recognition that HIV/AIDS is spreading rapidly among women through heterosexual transmission. As of June 1998,

the CDC reported that 641,086 women had been diagnosed with AIDS. Minority women represent a disproportionate number of these cases, with 230,029 African American women having been diagnosed with AIDS. In addition, a recent examination of data from 25 states that report names of individuals who are HIV infected, as well as those who have AIDS, reveals that a greater percentage of HIV cases are diagnosed in women (28% vs. 17%) and African Americans (57% vs. 45%) than previously indicated (CDC, 1997, 1998a). Such trends in new infections suggest that women of color are at greater risk for becoming HIV infected than are Caucasian women (CDC, 1998b).

Increasingly, women with HIV/AIDS live outside of metropolitan centers and in the South (CDC, 1998b; Sowell & Misener, 1997). Georgia and South Carolina are two southern states in which HIV/AIDS in women is showing dramatic increases. An examination of national statistics reveals that Georgia and South Carolina rank 9th and 10th in AIDS cases among women (CDC, 1997). In Georgia, where only AIDS cases are reported, there have been 2,976 (September 30, 1998) cases of AIDS diagnosed in women (*Georgia AIDS Surveillance Report*, 1998). In South Carolina, where both HIV infection and AIDS cases are monitored, there have been 3,532 cases of HIV/AIDS (*South Carolina HIV & AIDS Quarterly Surveillance Report*, 1998).

A majority of women with HIV/AIDS are in their reproductive years (16 to 45 years of age), making the potential transmission of HIV to a baby during pregnancy an important concern for women and their families (CDC, 1998a). Although research has shown that perinatal transmission of HIV can be decreased through the use of zidovudine (AZT) therapy (ACTG 076 National Institute of Allergy and Infectious Diseases, 1994), it remains important to fully understand those factors, including important family variables, that influence women's decisions to have a baby after becoming HIV infected. Previous research has supported that for women with HIV/AIDS, the decision to have a baby is not simplistic and is most likely influenced by a number of interrelated factors. Such decisions are potentially influenced by complex intrapersonal beliefs, powerful family dynamics, and social pressures, many that are culturally based (Arras, 1990; Balanon et al., 1990; Cremieux et al., 1993; Sunderland, 1990). The complexity of decision making has been underscored by Zajonc (1980), who proposes that decisions are influenced by independent emotional (affective) and cognitive processes that interact to effect information processing. This suggests that factors that act on an individual's emotional response to options, as well as his or her knowl-

edge about potential outcomes of the options, influence actual decision making.

Culture exerts a key influence in the way that women view motherhood and their roles within the family (Dore & Dumois, 1990; Pivnick, 1994). Acknowledging cultural differences among various ethnic groups, many women living in the South share values and perceptions concerning family that may be considered part of a southern culture (Sowell & Misener, 1997). African American women and women with ties to rural communities have traditionally placed great importance on family and the role of having children in defining family (Gutman, 1976; Mays, 1979). For HIV-infected women who are members of such a southern culture, the motivation to have a child, and the sanctions against aborting a baby who is HIV exposed, may be stronger than concerns about perinatal transmission of HIV (Bedimo, Bessinger, & Kissinger, 1998; Henrion, Henrion-Geant, Mandelbrot, & Cremieux, 1991; Kurth, 1993). In addition, in some cultural groups, motherhood helps to define a woman's role as an adult and to strengthen her role within the family and society (Sowell & Misener, 1997; Sunderland, 1990).

Miller (1992, 1994) conceptualized the phenomenon of motivation for childbearing in the general population as being based on a four-step psychological sequence: the formation of traits, the activation of traits into desires, the translation of desires into intentions, and the implementation of intentions in the form of behavior. Research based on this framework supports the importance of personality traits and diverse life-cycle experiences in development of childbearing motivation. Previous experiences with parenting, cultural norms, and personal beliefs about childbearing represent factors that affect women's desires and subsequent intentions to have a baby.

Although little research has focused on reproductive decision making in women with HIV/AIDS, factors that influence the decision to have a baby are likely to be very different from those in the general population. In making a decision to have a baby, HIV-infected women must consider the potential for the baby to be HIV infected, how becoming pregnant will affect her health, and the possibility that she will become ill and/or die before the child is grown. In one of the few studies of reproductive decision making in HIV-infected women, Sowell and Misener (1997) reported six themes that emerged from data obtained in two focus group sessions with women with HIV/AIDS. Their themes were spiritual and religious beliefs, beliefs about HIV, previous experience with childbearing, attitudes of fami-

lies and sex partners, personal health, and intrapersonal motivation to have a baby. These themes are consistent with the findings of a large quantitative study by Ahluwalia, DeVellis, and Thomas (1998), who investigated reproductive decisions of women at risk for HIV infection. Correlates of reproductive decisions included age, ethnicity, and number of children living with the woman. In both of these studies, younger women who did not have children were more likely to want a baby. However, Ahluwalia and associates (1998) found that significantly more women who identified as Caucasian and Native American reported intentions to have a baby than did African American and Hispanic women. Despite these findings, the high rates of HIV infection being reported among African American women of reproductive age living in the South makes further investigation of factors influencing childbearing in the group essential. To date, there has been limited research focusing on how these women view the risk of perinatal transmission of HIV, as well as what factors influence their decisions to have a baby. The current study sought to describe factors that either act to motivate or deter African American women with HIV/AIDS in having a baby.

METHOD

This descriptive study used a cross-sectional sample of HIV-positive women who resided in Georgia and South Carolina and who were at risk for becoming pregnant. Data were collected over a 4-month period, August through November 1997. Research assistants were extensively trained in data collection using a questionnaire format. They conducted face-to-face interviews to obtain information about factors that potentially motivate HIV-infected women to have or not to have a baby. In addition, women were asked to report how susceptible they thought their baby would be to perinatal transmission of HIV if they should become pregnant.

Data Collection Tools

Demographic data were collected using a questionnaire that included age, family and household composition, education, employment, household income, and types of governmental services received, such as social security (SSI/SSD) and food stamps. In addition, women were asked specifically about the number of children

they have had and how many of these children had been born since they became HIV infected. Women reported the HIV status of their children and whether they had a child who had died from HIV/AIDS.

Prior to the study, two focus groups with 22 HIV-infected women at risk for getting pregnant were conducted (Sowell & Misener, 1997). The women who participated in the focus groups described a number of factors that they felt HIV-infected women needed to consider in making the decision to have a baby. Women also described a range of beliefs about how susceptible a baby was to perinatal transmission of HIV if the mother was HIV positive. Drawing on the focus group discussions and a review of the social science literature regarding factors that influence women's decisions to have children, the researchers developed the Motivation for Childbearing Scale. In addition, the researchers used information obtained in the focus groups to construct a single item to assess women's perceptions about how susceptible they thought their baby would be to getting HIV infection if they should become pregnant. The decision to develop scales for use in the study was based on the absence of instruments to measure HIV-infected women's perceptions of a baby's susceptibility to perinatal transmission of HIV, as well as women's motivation to have a baby. Furthermore, developing these measures from the population in which they were to be used helped to ensure the cultural appropriateness of the measures as well as the accuracy of the study results.

Women's motivation for childbearing once they were diagnosed with HIV infection was measured using 13 items. These items consisted of statements concerning factors that would be either positive or negative outcomes/influences associated with having a baby although the woman is HIV positive. Women were asked to report their feelings concerning each of the statements using a 4-point response scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Examples of questions included: "I want a baby because it will be someone to love," and "It wouldn't be fair to my family to have a baby that they will have to care for and raise." These items were designed to provide a Motivation for Childbearing in HIV-Infected Women score when summed or for use as individual items for descriptive analysis. The potential score for the summed scale ranged from 13 to 52, with a high score indicating greater motivation to have a baby.

Women's perceptions of the susceptibility to perinatal transmission of HIV to their baby if they should become pregnant was measured by one item. They were asked to respond on a 4-point response

scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*) to the following statement: "Even if I have HIV and become pregnant, my baby will not be infected." In addition, women were asked to respond to a one-item question as to who would be the most important person in helping them to make the decision to have a baby.

Procedure

Research assistants were identified using the input from personnel of local AIDS service agencies. All research assistants were female and had experience working with women with HIV infection. None of the research assistants were providing direct services to the women they interviewed. The research assistants were trained as to the format and procedures to be used in the study by the research team. Women for the study were recruited from both clinical and community AIDS service agencies. Selection criteria for the women were: (a) reproductive age (18-45), (b) African American, (c) verified HIV-seropositive status as documented by HIV testing in chart, (d) have not been sterilized or have a permanent contraceptive device, (e) sexually active by self-report, (f) able to speak and understand English, and (g) no evidence of dementia. All women at the cooperating sites who met the study criteria were asked to participate in the study. Those women agreeing to participate in the study were interviewed at the cooperating agencies, in their homes, or at other mutually agreed-on sites. The actual site for the interview was determined by the woman and was intended to provide a comfortable setting in which the women could respond to study questions. Before any questions were asked, the purpose of the study was explained to each woman and informed consent was obtained. All items on the questionnaires were read to the women, and their answers were recorded. Participants were paid a \$30 honorarium for taking part in the interview.

Sample

The sample consisted of 45 African American women who had been diagnosed as HIV infected. Women who participated in the study ranged in age from 19 to 45 years, with a mean age of 35.2. Almost two thirds of the women (62%) had a high school or greater education. Thirty women (67%) reported not having a paying job. Six of the women declined to provide data as to their annual income. Of

those women who did provide income information, 79% had household incomes of \$10,000/year or less. More than one half of the women ($n = 27$, 60%) were single. Of those women who reported being single, 9 (33%) were single with dependent children. All but 11 of the women reported having children, and the number of children ranged from 1 to 5. Time since HIV diagnosis for women in the sample ranged from 1 month to approximately 3 years. Twenty women (45%) reported that they had given birth to a baby since they became HIV infected. The majority of these women ($n = 18$, 90%) reported that all of their children were HIV negative. Ten (22%) of the women reported that their partner was HIV infected, and 5 (11%) reported that they did not know their partner's HIV serostatus.

FINDINGS

The study findings showed that a majority of the women did not believe that their baby would be infected just because they had HIV. In response to the statement "Even if I have HIV and become pregnant, my baby will not be infected," 34 women (76%) agreed or strongly agreed. On the 4-point response scale (a lower score indicated a perception of increased susceptibility), women's responses ranged from 1 to 4, with a mean of 2.9 ($SD = 0.82$).

To gain a better understanding about how individual factors influenced women's decision making to have a baby, the 13 items used to measure motivation for childbearing were looked at individually by obtaining frequencies and percentages. An examination of motivating factors revealed that more than half ($n = 25$, 56%) of the women said that their husband or sex partner wanted another baby. Of the women, 58% ($n = 26$) said that a baby would be a positive influence in their life, and 87% ($n = 39$) reported believing that if something happened to them, their family would give the baby a good home.

An examination of deterrents revealed that a majority of the women ($n = 29$, 65%) said they did not want a baby because they would have to leave it alone if they got sick or died. Another important deterrent for women in considering whether to have a baby was the belief that the pregnancy would put too much stress on the woman's body. A majority of the women ($n = 26$, 58%) felt that having a baby would be too stressful on them. However, nearly half of the women ($n = 21$, 47%) did not believe that having a baby would make them become ill if they were in good health. Yet, a majority of women

($n = 29$, 64%) agreed that if they got pregnant, it was God's will that they have a baby. Table 1 provides a list of the items used to measure motivators and deterrents for childbearing in HIV-positive women as well as a breakdown of women's responses to the individual items.

In an effort to determine those individuals who most influenced women's childbearing decisions, women were asked to identify who would be the most important person in helping them decide to have a baby now that they were HIV infected. Fourteen (33%) of the women reported that husbands or sex partners would be the most important persons in helping make the decision to have a baby, and 12 women (28%) reported that family members would be most important.

There was no existing scale to measure motivation to have a baby in HIV-positive women. Therefore, the researchers developed the 13-item scale previously described (see data collection tools) so that they could measure this variable and obtain an overall Motivation to Have a Baby score. Because this was a new scale, psychometric statistics were performed before an overall motivation score was calculated. Factor analysis was performed on the 13 items that comprised the scale. First, principal components factor analysis was used. A scree plot of the eigenvalues indicated that two factors should be retained. The items were rotated using Promax rotation. Rotation resulted in two factors that were subsequently labeled Motivators for Having a Baby and Deterrents for Having a Baby. These two factors were consistent with the theoretical basis for the development of this instrument. Motivators for Having a Baby consists of items 7, 4, 1, 2, 12, 6, and 8—shown in Table 1. Deterrents for Having a Baby consists of items 10, 5, 9, 3, and 11—shown in Table 1. All items loaded on only one of the factors, with factor loadings of greater than 0.40. Internal consistency was calculated for the total scale ($\alpha = 0.84$), the Motivators for Having a Baby subscale ($\alpha = 0.83$), and the Deterrents for Having a Baby subscale ($\alpha = 0.72$), and all were considered to be adequate. Table 2 provides a further description of the psychometrics of this instrument.

Once the scale was determined to be a reliable measure, an overall score reflecting HIV-positive women's motivation to have a baby was obtained. The mean score for the total instrument to measure motivation for childbearing in HIV-positive women was 29.2 ($SD = 9.4$) out of a possible score of 54 (higher score indicated greater motivation to have a baby). These results indicate that women in this study demonstrated a moderate degree of motivation to have a baby even though they were HIV positive.

Table 1: Descriptive Statistics of Motivation for Childbearing

<i>Item</i>	<i>Motivating/Deterring Factors</i>		<i>Frequency</i>	<i>Percentage</i>
1	I would like to have a baby even though I have HIV so I can leave something of value if I die.	Disagree	28	62.2
		Agree	17	37.8
2	A baby would be a positive influence in my life right now.	Disagree	19	42.2
		Agree	26	57.8
3	I wouldn't want to have a baby because I would have to leave it alone if I get real sick or die.	Disagree	16	35.5
		Agree	29	64.5
4	I want a baby because it will be someone to love.	Disagree	20	44.4
		Agree	25	55.6
5	It wouldn't be fair to my family to have a baby that they will have to care for and raise.	Disagree	16	35.6
		Agree	29	64.4
6	My husband or partner wants a baby.	Disagree	20	44.4
		Agree	25	55.6
7	Having a baby would give me someone that really loves me.	Disagree	29	64.5
		Agree	16	35.5
8	If I had a baby and got real sick, my family would give the baby a good home.	Disagree	6	13.3
		Agree	39	86.7
9	If I had a baby, it would most likely get sick.	Disagree	26	57.8
		Agree	19	42.2
10	Having a baby would put too much stress on my body now.	Disagree	19	42.2
		Agree	26	57.8
11	Because I am in good health, having a baby will make me become ill.	Disagree	24	53.3
		Agree	21	46.7
12	I want to have a baby even though I'm HIV positive because I want to leave part of myself to my husband or partner as a gift.	Disagree	31	68.9
		Agree	14	31.1
13	Even if I'm HIV positive, if I get pregnant it is my God's will that I have a/another baby.	Disagree	16	35.6
		Agree	29	64.4

325 Note: *N* = 45 African American women.

Table 2: Psychometric Data and Reliability of the Motivation for Childbearing Scale

<i>Factor</i>	<i>Number of Items</i>	<i>Possible Range</i>	<i>Actual Range</i>	<i>M</i>	<i>SD</i>	<i>Variance Explained</i>	<i>Cronbach's α</i>
I. Motivators	8	8 to 32	10 to 32	19.3	5.9	4.76	0.83
II. Deterrents	5	5 to 20	5 to 20	9.9	4.5	3.37	0.72
Total	13	13 to 52	15 to 52	29.2	9.4	N/A	0.84

DISCUSSION

Approximately 76% of the women participating in this study indicated that they did not believe that their babies would be HIV infected if they became pregnant even though they had HIV. On initial review, this seemingly low appraisal of a baby's susceptibility to perinatal transmission of HIV may suggest that women were not knowledgeable about the potential risk of transmitting HIV to an unborn baby. However, this finding may more accurately reflect women's assessment of available medical information as well as their own experiences concerning perinatal transmission of HIV. Twenty women in our study had given birth since being diagnosed as HIV positive. Of those babies born to women in the study, almost 90% were HIV negative. This rate of perinatal transmission is consistent with epidemiological data that show that without drug therapy, 15% to 30% of babies born to HIV-infected mothers will be HIV positive (Anastos, Denenberg, & Solomon, 1998). With the use of AZT therapy, the rate of perinatal transmission can be as low of 8% to 10% (ACTG 076 National Institute of Allergy and Infectious Diseases, 1994). Although there is currently no way to predict if any specific baby born to an HIV-infected mother will be HIV positive, women's belief that their babies were not likely to be infected is generally supported by overall perinatal transmission rates. Women who make the decision to have a baby may be very aware of the risk of perinatal HIV transmission; however, because of their desire to have a baby, they are willing to accept the risk. Health care professionals counseling HIV-infected women on issues related to childbearing need to go beyond providing information on perinatal transmission of HIV and assist women in identifying why they want a baby as well as the resources available to care for the baby.

The majority of the women in this study indicated that because of their HIV infection they did not want to have a baby. Consistent with

previous research, women who already had a family or children in the home were more likely to not want another child (Ahluwalia et al., 1998; Miller, 1994; Sowell & Misener, 1997). Women reported being concerned that if they became sick or died they would have to leave the child alone. Despite this concern for leaving a child alone, most of the women (86%) reported that their families would give their baby a good home if they were unable to take care for it. This finding supports the close ties that women had with family and their trust in family members (Hogan & Kitagawa, 1985). The trust that women in this study had in family may represent a relationship of interdependence traditionally found among members in African American and southern families. Unlike other regions of the country (Cohen & Nehring, 1994), foster care for HIV/AIDS orphans has not been a problem in the South. This situation seems to support women's belief that family members will provide a home for their children. The trust that HIV-infected women seem to place in their family underscores the valuable roles that family members play in women's decisions to have a child, as well as child rearing. This finding provides evidence that to maximize health outcomes for HIV-infected women of reproductive age, the organization of health care services needs to move beyond an individual or maternal/child emphasis to family-centered models. Nurses in their overlapping roles of care provider, patient educator, and patient advocate may be in a unique position to facilitate such a family-centered approach to care.

In addition, almost two thirds of the women (64%) said that if they got pregnant, it was God's will that they have a baby. This belief in the intervention of a higher power in women's daily lives, and a sense of reliance on God, is consistent with traditional religious beliefs held by many cultural groups in the southern United States. Bourjolly (1998), in examining women with breast cancer, reported differences in religiousness between Black and White women. This research suggests that Black women rely on religiousness as a coping resource to a greater extent than do White women. Bourjolly's findings, as well as the findings of the current study, suggest the value of health care providers working with the faith community to offer a more holistic approach to individualized health care planning that draws from women's faith in their god, support from their religious community, and the resources of their family.

Unlike the finding of Sowell and Misener (1997), women in this study reported that their significant other (husband or sex partner) would be the most important person in helping them make the deci-

sion to have a baby. The importance of partners in the decision to have a baby was previously supported in studies by Kline et al. (1995) and Murphy et al. (1998). Kline and associates (1995) reported in their work with minority women that a partner's desire for children was often more important than the woman's wishes. Likewise, Murphy and associates (1998) found that partner social norms showed a strong association with positive pregnancy outcome expectancies in HIV-infected young women. The importance of partners in reproductive decision making found in the current study takes on greater significance when considering that more than half of the women reported that their husband or sex partner wanted them to have a (another) baby even though they were HIV positive. This finding emphasizes the importance of the need for health care professionals to undertake a family-focused approach to care that includes male partners in discussions and counseling related to having a baby. The medical treatment of HIV/AIDS in women will not be successful if the social context in which women live their lives is not considered (Sowell, Moneyham, & Aranda-Naranjo, 1999). For women in this study, decisions about having a baby were made within the framework of the family. The fact that the majority of the women believed that if they became pregnant, family members (including partners) would be supportive most likely contributed to the 29.2 mean Motivation to Have a Baby score found in this group of women.

Due to the relatively small sample size and the use of a convenience sample, any extrapolation of the study results should be done with caution. However, this study provides important insights into a number of intrapersonal beliefs and social factors that potentially influence the reproductive decision making in HIV-infected women. In addition, the development and initial testing of a motivation for childbearing scale specifically designed to measure HIV-infected women's motivation to have a baby is an essential step in determining factors influencing these women's reproductive decision making. Although further testing of the scale with larger numbers of participants is needed, the psychometric performance of the scale in this study supports its value as a measure of this variable.

The important role of family and family type (partner) relationships in HIV-infected women's decisions to have or not have a baby warrants further study. Future research needs to assess family characteristics, such as family structure and family functioning, to determine how variation in these characteristics affects HIV-infected women's reproductive decisions. Also, there is a need to examine

cultural values and beliefs in relationship to reproductive decision making.

The authors recommend further studies that more clearly determine the relationship among HIV-infected women's motivation to have a baby, her intent to get pregnant, and her actually having a baby. Through greater understanding of factors influencing HIV-positive women's decisions to have a baby, health care professionals can better assist women to make informed choices that maximize a positive outcome of their reproductive decisions.

REFERENCES

- ACTG 076, National Institute of Allergy and Infectious Diseases. (1994). *Executive summary: Abstract ACTG076. Phase III randomized, placebo controlled trial to evaluate the efficacy, safety and tolerance of Zidovudine (ZDV) for the prevention of maternal-fetal transmission*. Washington, DC: Government Printing Office.
- Ahluwalia, I. B., DeVellis, R. F., & Thomas, J. C. (1998). Reproductive decisions of women at risk for acquiring HIV infection. *AIDS Education and Prevention, 10*(1), 90-97.
- Anastos, K., Denenberg, R., & Solomon, L. (1998). Clinical management of HIV-infected women. In G. P. Wormser (Ed.), *AIDS and other manifestations of HIV infection* (3rd ed., pp. 339-348). Philadelphia: Lippincott-Raven.
- Arras, J. D. (1990). AIDS and reproductive decisions: Having children in fear and trembling. *Milbank Quarterly, 68*(3), 353-382.
- Balanon, A., Fordyce, E. J., & Stoneburner, R. (1990). AIDS concerns and women's reproductive intentions: HIV testing and pregnancy choices. *International Conference on AIDS, 6*(1), 327-339.
- Bedimo, A. L., Bessinger, R., & Kissinger, P. (1998). Reproductive choices among HIV-positive women. *Social Science & Medicine, 46*(2), 171-179.
- Bourjolly, J. N. (1998). Differences in religiousness among Black and White women with breast cancer. *Social Work in Health Care, 28*(1), 21-39.
- Centers for Disease Control and Prevention. (CDC). (1997). *HIV/AIDS surveillance report* (Vol. 9, pp. 1-42). Atlanta: Author.
- Centers for Disease Control and Prevention. (CDC). (1998a). Diagnosis and reporting HIV and AIDS in states with integrated HIV and AIDS surveillance. *U.S. Morbidity and Mortality Weekly Report, 47*(15), 309-314.
- Centers for Disease Control and Prevention. (CDC). (1998b). *Trends: A closer look at trends by race and gender*. Retrieved February 4, 1999, from the World Wide Web: http://www.cdcpin.org/geneva98/trends/trends_6.htm.
- Cohen, F. L., & Nehring, W. M. (1994). Foster care of HIV-positive children in the United States. *Public Health Reports, 109*(1), 60-67.
- Cremieux, N., Mandelbrot, L., Firtion, G., Grandjean, M., Artigubieille, F., & Henrion, R. (1993). HIV-seropositive pregnant women's choice to deliver or to terminate pregnancy. *International Conference on AIDS, 9*(1), 462-477.

- Dore, M., & Dumois, A. O. (1990). Cultural differences in the meaning of adolescent pregnancy. *Families in Society*, 71, 93-101.
- Fowler, M. G. (1997). Update: Transmission of HIV-1 from mother to child. *Current Opinions in Obstetrics and Gynecology*, 9(6), 343-348.
- Georgia AIDS Surveillance Report. (1998, September). Atlanta: Georgia Department of Human Resources, Division of Public Health, Epidemiology Branch.
- Gutman, H. (1976). *The Black family in slavery and freedom, 1750-1926*. New York: Doubleday.
- Henrion, R., Henrion-Geant, E., Mandelbrot, L., & Cremieux, N. (1991). HIV-infected women's decision to continue or terminate pregnancy. *Presse Medicale*, 20(19), 896-898.
- Hogan, D. P., & Kitagawa, E. M. (1985). The impact of social status, family structure, and neighborhood on the fertility of Black adolescents. *American Journal of Sociology*, 90(4), 825-855.
- Johnstone, F. D., Brettler, R. P., MacCallum, L. R., Mok, J., Peutherer, J. F., & Burns, S. (1990). Women's knowledge of their HIV antibody state: Its effects on their decision whether to continue the pregnancy. *British Medical Journal*, 300(6), 23-36.
- Kline, A., Strickler, J., & Kempf, J. (1995). Factors associated with pregnancy and pregnancy resolution in HIV seropositive women. *Social Science & Medicine*, 40, 1539-1547.
- Klirfeld, D. (1998). HIV disease and women. *Medical Clinics of North America*, 82(2), 335-357.
- Kurth, A. (1993). Reproduction issues, pregnancy, and childbearing in HIV-infected women. In F. Cohen & J. Durham (Eds.), *Women, children and HIV/AIDS*. New York: Springer.
- Lam, N.S.N., & Lui, K. (1994). Spread of AIDS in rural Americans, 1982-1990. *Journal of Acquired Immunodeficiency Syndrome*, 7(5), 485-490.
- Mays, R. (1979). Primary health care and the Black family. *Nurse Practitioner*, 13, 13-15, 20-21.
- Miller, W. B. (1992). Personality traits and developmental experiences as antecedents of childbearing motivation. *Demography*, 29(2), 265-285.
- Miller, W. B. (1994). Childbearing motivation, desires, and intentions: A theoretical framework. *Genetic, Social, and General Psychology Monograph*, 120(2), 223-258.
- Murphy, D. A., Mann, T., Keefe, Z., & Rotheram-Borus, M. (1998). Number of pregnancies, outcome expectancies, and social norms among HIV-infected young women. *Health Psychology*, 17(5), 470-475.
- Pivnick, A. (1994). Loss and regeneration: Influences on the reproductive decisions of HIV positive, drug-using women. *Medical Anthropology*, 16, 39-62.
- Russell, J. M., & Smith K. (1998). HIV infected women and women's services. *Health Care Women International*, 19(2), 131-139.
- Solomon, L., Stein, M., Flynn, C., Schuman, P., Schoenbaum, E., Moore, J., Holmberg, S., & Graham, N. M. (1998). Health services use by urban women with or at risk for HIV-1 infection: The HIV Epidemiology Research Study (HERS). *Journal of Acquired Immune Deficiency Syndrome and Retrovirology*, 17(3), 253-361.
- South Carolina HIV & AIDS Quarterly Surveillance Report (1998, September 30). Columbia: South Carolina Department of Health and Environmental Control, STD/HIV Division, Surveillance Program.
- Sowell, R. L., & Misener, T. R. (1997). Decisions to have a baby by HIV-infected women. *Western Journal of Nursing Research*, 19(1), 56-70.

- Sowell, R., Moneyham, L., & Aranda-Naranjo, B. (1999). The care of women with AIDS: Special needs and considerations. *Nursing Clinics of North America*, 34(1), 179-199.
- Sunderland, A. (1990). Influence of human immunodeficiency virus infection on reproductive decisions. *Obstetrics and Gynecology Clinics of North America*, 7(3), 585-594.
- Zajonc, R. B. (1980). Feeling and thinking: Preferences need no inferences. *American Psychologist*, 35(2), 151-175.

Richard L. Sowell, Ph.D., R.N., FAAN, an associate professor and chair of the Department of Administrative and Clinical Nursing at the University of South Carolina, has worked in the area of HIV/AIDS for more than 16 years. He was the director of research and client services for AID Atlanta, Inc. (1992-1995), a community-based AIDS service organization case-managing more than 1,600 persons with HIV/AIDS. Dr. Sowell is currently the principal investigator for an R01 focusing on reproductive decision making in HIV-infected women. He is the editor of the Journal of the Association of Nurses in AIDS Care and received the Association of Nurse in AIDS Care Research Recognition Award in November 1998. Recent publications include (with L. Moneyham & B. Aranda-Naranjo) "The Care of Women With AIDS: Special Needs and Considerations" (Nursing Clinics of North America, 1999) and (with K. Phillips & J. Grier) "Restructuring Life to Face the Future: The Perspective of Men After a Positive Response to Protease Inhibitor Therapy" (AIDS Patient Care and STDs, 1998).

Kenneth D. Phillips, Ph.D., R.N., has been an assistant professor in the College of Nursing at the University of South Carolina since August 1995. He teaches courses in pathophysiology at the undergraduate and graduate level. He teaches theory analysis at the doctoral level. Dr. Phillips's primary areas of research are psychoneuroimmunology and sleep in HIV/AIDS. Recent publications include (with R. L. Sowell & T. Misener) "Relationships Among HIV Risk Beliefs, Attitudes, and Behaviors in Sexually Active, Seronegative Gay Males" (Nursing Connections, 1998) and "Protease Inhibitors: A New Weapon and a New Strategy Against HIV" (Journal of the Association of Nurses in AIDS Care, 1996).

Terry R. Misener, Ph.D., R.N., FAAN, has been a professor and dean in the School of Nursing at the University of Portland since March 1998. Prior to that, he was a professor in the School of Nursing at the University of South Carolina, where he taught courses in research, community health, and nursing theory in the doctoral program. Dr. Misener has been funded in men's health behavior and in studies examining reproductive issues in HIV-positive women. Recent publications include (with R. L. Sowell) "HIV Infected Women's Decisions to Take Antiretrovirals" (Western Journal of Nursing Research, 1998) and (with R. L. Sowell) "Decisions to Have a Baby by HIV Infected Women" (Western Journal of Nursing Research, 1997).