

Exploring the Concepts of Intended, Planned, and Wanted Pregnancy

Rachel C. Fischer, MSPH; Joseph B. Stanford, MD, MSPH; Penny Jameson, PhD;
and M. Jann DeWitt, PhD
Salt Lake City, Utah

BACKGROUND. A variety of terms have been used to define the intention status of pregnancies. The purpose of this study was to explore how women relate to these terms and how they define the intention status of their pregnancies. Improved understanding of how women use these terms may enhance communication between physicians, patients, and families.

METHODS. This qualitative study used in-depth semistructured interviews to explore how women defined the intention status of current, past, and hypothetical pregnancies. Eighteen women who were seeking prenatal care, elective abortion, or pregnancy testing were interviewed. Most of the subjects were interviewed in the first trimester of a current pregnancy. Four researchers independently reviewed the interview transcripts and summarized the points made by each subject.

RESULTS. Three major themes emerged from the interviews: (1) definitions of terms related to pregnancy varied substantially among women and seemed to be highly correlated to social and cultural influences; (2) the concepts of *wanted* and *unwanted* pregnancy were qualitatively distinct from the concepts of *planned* and *unplanned* pregnancies and seemed to be more relevant to the decision to continue or abort the pregnancy; and (3) attitudes of the male partners toward the pregnancies were very influential in how women defined their pregnancies.

CONCLUSIONS. Physicians should explore the attitudes and circumstances of pregnant women, rather than focusing on whether the pregnancy was planned. Support from the significant other and the woman's underlying values about parenthood seem to be of particular importance. Our results also suggest that further studies are needed to determine the best method for measuring the intention status of pregnancy for research and policy.

KEY WORDS. Pregnancy; pregnancy, unwanted; pregnancy, first trimester; physician-patient relations. (*J Fam Pract* 1999; 48:117-122)

Approximately 57% (3.1 million) of all pregnancies in the United States are classified as unintended, and 1.6 million of these end in abortion.¹ Unintended pregnancies that result in live births have been associated with inadequate prenatal care,² alcohol use and smoking during pregnancy,^{3,4} low birth weight,⁵ obstetric complications,⁶ child abuse,⁷ poor child development,⁸ and lower educational attainment of the child.⁹ Despite the association of unintended pregnancies with adverse consequences, little research has examined the meaning of unintended pregnancy and

how that meaning is constructed in women's lives.¹⁰

In research, policy, and clinical practice, there has been a tendency to use the terms intended, planned, and wanted interchangeably when assessing the intention status of pregnancy.¹⁰ However, these terms may connote substantially different concepts.¹¹ This was illustrated by a recent study¹² of 110 women receiving prenatal care that found only 35% of pregnancies were planned but 91% were wanted. Understanding how women relate to these terms and how they define the intention status of their pregnancies may enhance communication between physicians, patients, and families. The goal of our study was to explore how women define the intention status of their pregnancies and how women relate to terms that are commonly used to define the intention status of pregnancy.

METHODS

This qualitative study using in-depth, semistructured interviews with open-ended questions was conducted during 1996. Such interviews can be considered conversations with meaning and are fundamentally different

Submitted, revised, November 19, 1998.

This work was previously presented at the Annual Meeting of the Society of Teachers of Family Medicine, Boston, Massachusetts, May 1997, and at the Annual Meeting of the American Academy of Natural Family Planning, Salt Lake City, Utah, July 1997.

From Utah Children (R.C.F.) and the Department of Family and Preventive Medicine, University of Utah (J.B.S., P.J., M.J.D.). Requests for reprints should be addressed to Joseph B. Stanford, MD, MSPH, Department of Family and Preventive Medicine, University of Utah, 50 North Medical Drive, Salt Lake City, UT 84132. E-mail: jstanford@dfpm.utah.edu

from formal questionnaires with predetermined response categories.¹³ We used this approach to explore what meanings women attached to their pregnancies and how they related to specific terms.¹⁴

We obtained a sample of 18 women from a variety of clinical settings in Salt Lake City, Utah, including 2 university family practice clinics, an Native American health clinic, a community health center, a university obstetrics clinic, a private obstetrics clinic, and a clinic providing abortion services. The settings were selected to increase the diversity of the sample. Since we were interested in how meaning is developed early in a woman's pregnancy, study participants were primarily in their first trimester. All of the women who were invited to be interviewed for the study agreed to participate without incentives.

Written informed consent was obtained before the interview, using both an oral and a written explanation of the study, following protocols approved by the University of Utah's Institutional Review Board. The principal investigator (R.C.F.) conducted all interviews. The second investigator (J.B.S.) directly observed one interview. All interviews were conducted in a private office or secluded area. Interviews were recorded on audiotape and transcribed verbatim. The length of the interviews ranged from 30 to 60 minutes.

We developed a semistructured interview and circulated it to psychologists, nurses, physicians, and an anthropologist for review. On the basis of the reviewers' comments, we revised the instrument for initial use. During the data collection phase of the study, we adapted the interview instrument further, according to interview experiences. For example, because most of the women who were interviewed initially commented on their partner's reaction to the pregnancy, questions about partner attitudes were included if women did not independently offer that information.

The introductory question was "How do you feel about this pregnancy?" Based on the reply, the interviewer asked why the woman provided that response. As the interview progressed and an initial description of the pregnancy evolved, the interviewer added questions to clarify issues as the woman mentioned them, such as past pregnancies, economic circumstances, and family and partnership concerns.

The interview also specifically explored how women related to the terms *intended*, *unintended*, *planned*, *unplanned*, *wanted*, and *unwanted* concerning the current pregnancy and past or hypothetical pregnancies. Inquiries about these terms were made in the context of the responses to previous questions. Participants were asked what conditions or circumstances would need to change for the pregnancy to be considered the opposite of the answer given. When a woman expressed an inconsistency in her feelings about her pregnancy, the interviewer attempted to clarify the participant's account by pursuing discordant issues further.

We conducted data analysis on an ongoing basis during the study.¹⁵ Each investigator reviewed the transcripts. All investigators met regularly in debriefing sessions to discuss the findings, to review demonstrated consistencies in patterns, and to identify areas that lacked clarity. After 18 interviews, theoretical saturation occurred, when information from the study participants repeated information obtained from previous participants and fewer new concepts emerged.¹⁶ Following the completion of the interviews, we held additional meetings to consolidate the themes and review the literature for corroborative information. We also sent our analysis and a subset of the transcripts to outside experts in qualitative research or family planning to establish confirmability.

RESULTS

Characteristics of the study participants are reported in Table 1.* All but 2 of the participants were in their first trimester of pregnancy, one was waiting for the results of a pregnancy test (with the intention of aborting if the test result was positive), and one was in her third trimester of pregnancy. Of the 8 participants who reported active affiliation with a religion, 6 were members of the Church of Jesus Christ of Latter-day Saints (LDS), and 2 were Roman Catholic.

Three main themes emerged from the data: (1) Women in the study assigned meaning to the terms *intended*, *planned*, and *wanted* (and their converses, *unintended*, *unplanned*, and *unwanted*) in a variety of ways, in the context of their own social and cultural circumstances; (2) Compared with *intended* and *planned*, the concept of *wanted* was qualitatively distinct and seemed much more consequential in terms of behavior related to the pregnancy (eg, decisions whether to continue or to abort); (3) The partner's attitude toward the pregnancy was highly influential in how every woman but one defined her pregnancy.

VARIATION IN MEANING

Women defined *intended*, *planned*, and *wanted* in a variety of ways. Many of the descriptions applied to the current pregnancy (Table 2), as well as a past or hypothetical pregnancy. There are 3 noteworthy characteristics about the meanings assigned. First, many of their descriptions applied to more than one term of intention status. For example, emotional readiness was an important aspect of both a *wanted* and an *intended* pregnancy for some women.

Second, it was apparent that study participants assigned different degrees of value to the circumstances and concepts used to determine the meaning of each term. For example, women who expressed a strong

*Additional information, illustrative quotations, and tables are available on the *Journal's* Web site at www.jfp.denver.co.us.

TABLE 1

Demographic Characteristics of Sample (N = 18)

Characteristic

	Mean (Range)
Age, years	27.2 (17-35)
Total number of pregnancies	2.5 (1-6)
Previous number of births	0.9 (0-4)
	No.
Marital status	
Married	7
Living with partner	5
Not living with partner	3
Divorced or separated	3
Race	
White	14
Hispanic	2
African American	1
Native American	1
Pregnancy plans	
Continue	13
Abort	5
Education	
Less than high school	4
High school	3
Some beyond high school	7
College graduate	4
Annual household income	
<\$10,000	8
\$10,000-\$19,999	4
\$20,000-\$39,999	2
≥\$40,000	3
Did not know	1
Employed	12
Active in a religion	8

desire for children and placed less emphasis on the need for financial security than women who did not express a strong desire. In fact, no 2 women placed the exact same value on factors associated with characterizing a pregnancy as *intended*, *planned*, or *wanted*. This variability suggests that social and cultural context play large roles in how a woman defines these various factors.

Third, most women described a clear distinction between the concept of *planned* and *wanted* pregnancies, but not between *planned* and *intended* pregnancies. Although many women said *planned* and *intended* were different from each other, there was no general pattern to distinguish them. *Planned* and *intended* carried more action-oriented descriptions, while *wanted* status was associated with emotional factors. For example, when women were asked why they characterized their

pregnancy as *planned*, they often said it was because they quit using birth control or had discussed it with their partners. Study participants who characterized a pregnancy as *wanted*, however, said it was because they loved babies, wanted to be a mother, just felt ready, or because their partner was excited about the pregnancy.

THE RELEVANCE OF WANTEDNESS

Compared with *intendedness* and *planning*, *wantedness* seemed much more consequential in terms of behavior related to the pregnancy. Our analysis suggested that life circumstances, support from family and friends, attitudes toward children and abortion, and general feelings of readiness for a pregnancy may be more correlated to *wantedness* than they are to *intending* or *planning* to become pregnant. These factors, which clustered around the concept of wanting the pregnancy, seemed to be central to decisions about aborting or continuing the pregnancy. Women who defined their pregnancies as *wanted*, even if *unplanned*, indicated they had support from their partners or family and security in their life circumstances such that they were pleased with this pregnancy even though it was not *planned*.

Among the 5 women planning to terminate their pregnancies, all said their pregnancies were *unwanted*. Having an *unwanted* pregnancy was associated with not wanting another child ever or not being ready at this point in life, or current life circumstances. For example, one woman who was planning to abort said she was willing to make the sacrifices of being a mother, but felt that a child required a mother and a father who both desired to become parents together. Poor timing was not so much a factor in determining this woman's definition of *unwantedness* as was the adversity of her situation, which included an ambivalent partner, an unsupportive family, and inadequate financial resources.

Among the 13 women who planned to continue their pregnancies, 11 said their pregnancies were *wanted* at conception, and 2 said their pregnancies were *unwanted* at conception. The 2 women who characterized their pregnancies as *unwanted* initially felt overwhelmed by the responsibilities associated with motherhood. Both women had a child younger than 2 years of age. Socioeconomically, these 2 women differed substantially. One woman was not married to the father of her children, was not permanently employed, and had an annual income of less than \$10,000. The other woman felt stable in her marriage, expressed high satisfaction with the professional job she held, and had an annual household income exceeding \$50,000. Both women had family support that they felt they could draw on in their decision to continue the pregnancy and felt that although the pregnancy was *unwanted* initially, it had become *wanted* over time.

In some cases, we found it difficult to determine genuine reasons for why women defined a pregnancy as *wanted* or *unwanted*. One participant was scheduled to

TABLE 2

Primary Descriptions of an Intended, Unintended, Planned, Unplanned, Wanted, or Unwanted Current Pregnancy

Intended	Planned	Wanted
<ul style="list-style-type: none"> •Attempting to become pregnant •Becoming pregnant on purpose •Willing to carry the pregnancy to term •Being emotionally and physically ready •Talking about it first •Having sex without using contraception 	<ul style="list-style-type: none"> •Determining when ovulation occurs and consciously trying to conceive •Not using contraception •Being financially prepared •Having a secure job or making sure partner has a secure job •Talking about the pregnancy before it occurs with a partner •Having a stable relationship, particularly marriage •Physical readiness 	<ul style="list-style-type: none"> •Desire for a baby •Desire for another baby •Desire to be a mother •Partner was excited about the pregnancy •Both partners willing to raise the child together •Physical readiness •Emotional readiness •Having a home •Being married •Starting a family •Cannot identify with having a child that is not wanted, despite adverse circumstances
Unintended	Unplanned	Unwanted
<ul style="list-style-type: none"> •Not discussed between partners •Did not plan or mean for pregnancy to occur •Not on purpose •Pregnancy occurs when active prevention was used, such as birth control •Pregnancy just happens •Did not plan to become pregnant again •Lack of responsibility 	<ul style="list-style-type: none"> •Pregnancy just happened •Pregnancy was an accident •Timing not good •Becoming pregnant despite efforts to use birth control •Result of "stupidity" or "lack of responsibility" •Pregnancy was something that was not supposed to happen •Did not discuss with partner •Wanting birth spacing further apart 	<ul style="list-style-type: none"> •Not financially stable or no financial support •Lack of other (nonfinancial) support from partner •Being unmarried •Impediment to finishing school or maintaining job •Diffidence to having another baby •Guilt over being dependent on others for support •Perceived inability to cope with the pressure of being a single mother •Anxiety over physical changes associated with pregnancy •Too young •Wanting father's support, but not sure he is the right person to commit to •Just not happy

have her third abortion and expressed being unhappy about the pregnancy. When the interviewer asked what circumstances would have made her more happy about the pregnancy, she said, "If I was financially stable. If I knew the other party that I was with that got me here, you know, was also happy about it." However, later in the interview, she commented about the man involved with the pregnancy, saying, "Even if he had wanted me to have it, I wouldn't. And that's just that. I don't want another baby. I don't want a baby. I don't."

While some women could easily characterize a pregnancy as *unwanted*, other women, particularly those with strong religious affiliations (both LDS and Catholic), had a difficult time relating to the concept of *unwanted* pregnancy, sometimes even to the point of saying they could not imagine that they could ever have an *unwanted* pregnancy. Some of these women mentioned that a pregnancy resulting from rape could possibly be an *unwanted* pregnancy. When women in this group were asked why their pregnancies were *wanted*,

their answers usually referred to strong identification with the role of motherhood.

THE INFLUENCE OF THE MALE PARTNER'S ATTITUDE TOWARD THE PREGNANCY

Although there were many external factors affecting how a woman defined her pregnancy, the partner's attitude toward the pregnancy was prominent in all but one case, including instances where the study participants had other means of support, such as adequate financial resources, family members who approved of the pregnancy, family members who would provide help once the child was born, or government assistance.

As might be expected, married women with *planned* pregnancies reported that active decisions to have children were made jointly with their husbands. However, married women who became pregnant without actively making the decision with their spouse (ie, without planning the pregnancy) reported that their husbands' support, both emotional and financial,

helped make the pregnancy *wanted*.

For both married and unmarried women, having a partner who was excited about the pregnancy or displayed a desire to make the best of the situation, was highly associated with defining the pregnancy as *wanted* and with making the decision to carry a pregnancy to term. It is important to note that the women in this group usually expressed positive feelings about their partners and planned to continue the relationships with those partners. For example, one 27-year-old single woman had broken up with her boyfriend before she discovered she was pregnant. Subsequently, they reunited, and she reported that his excitement for the pregnancy accounted for almost 100% of her decision to continue the pregnancy.

In contrast, none of the 5 women planning to abort their pregnancies perceived that their partners were, or would be, supportive if they had decided not to abort. Circumstances such as inadequate income, lack of family support, and emotional unreadiness were also among the reasons women gave for deciding to terminate their pregnancies. Yet, some interviews revealed that being with the right partner could have affected interpretation of the pregnancy and changed the decision to terminate.

DISCUSSION

We believe that physicians should seek to understand the feelings and motivations that a woman may have about a pregnancy in greater detail than is obtained by simply asking her to designate her pregnancy as planned or unplanned, or wanted or unwanted. There is a large and significant heterogeneity of attitudes among women toward pregnancy that is not adequately represented by these simple terms. This study suggests that particular emphasis should be placed on understanding a woman's relationship with her partner, her partner's attitude toward the pregnancy, the level of support from family and friends, and her attitudes about children and family. We suggest that actively involving male partners in the processes of prenatal care will facilitate the physician's understanding of the family context surrounding the pregnancy. This emphasis on social and family context, and on the partner's role in the pregnancy, fits well with the core values of family practice.

Physicians do not have time to conduct formal interviews on these issues with patients, but these essential issues can be addressed rapidly and efficiently. On the basis of our interviews, we suggest the following approach. When interviewing a pregnant woman, a physician may ask "Do you feel ready for this pregnancy?" If she says yes, the physician may follow with "Are there any significant circumstances in your life right now that you wish were different for this pregnancy?" A negative response from the patient to the initial question would warrant follow-up questions appropriate to that answer. Once this information is collected, physicians will have greater awareness of underlying issues. Of

course, dealing with many of these issues will go beyond what can be done in an office visit and will require familiarity with community resources that can provide women and families with appropriate assistance.

Our findings are consistent with the available literature that has rigorously examined pregnancy intendedness. The Institute of Medicine's Committee on Unintended Pregnancy noted that it is "difficult to quantify people's feelings and sort them into categories that hold comparable meaning over time and across social groups,"¹⁶ reasoning that is supported by the theme of variation of meaning in our study. In focus groups conducted with pregnant women in North Carolina, Moos and colleagues¹⁷ found that the concept of planned pregnancy was not meaningful to many women, that religious beliefs help women accept unintended pregnancy, that women adapt readily to unintended pregnancy, and that unintended pregnancies have more social and psychological advantages than disadvantages for some women. This is consistent with our theme of relevance of wantedness. Finally, our finding that partner support is highly associated with how a woman defines her pregnancy is consistent with research indicating that a woman's fertility desires are known to be affected by partner attitudes.¹⁸ We believe that additional emphasis should be placed on men's involvement and responsibility in reproductive behavior. Physicians can begin this process by actively involving male partners in interviews and emphasizing their importance during pregnancy and parenting.

The strengths of this study are the inclusion of individuals who planned to abort their pregnancies and the focus on women who were pregnant at the time. With few exceptions, previous research in this area has surveyed women after the pregnancy in question had ended. Moreover, the qualitative methodology of this study provides a richer insight into these terms than has been available from data collected with questionnaires based on *a priori* assumptions about intendedness.

LIMITATIONS

There are a number of limitations to our study. Given its qualitative nature and the small sample size, the results do not imply any causal relationships. The 3 themes (variation in meaning, relevance of wantedness, and influence of the male partner's attitude toward the pregnancy) are not conclusive findings but rather hypotheses for future research that should further enhance our understanding of how women construct meaning for the terms related to intendedness of pregnancy. Few minorities were represented in this study. In Utah, there is a cultural influence from the predominant LDS religion which encourages family-oriented lifestyles and emphasizes the value of motherhood and of having children. (The average number of people per household in Utah is 3.13; the national average is 2.67.¹⁹) This cultural context influenced our participants to varying degrees.

Our study also did not consider women with plans to

place their child up for adoption. Similarly, women who decided to continue their pregnancy but did not seek prenatal care were also excluded. Including these 2 groups of women may have revealed additional circumstances and factors that would affect the meaning of an *intended*, *planned*, or *wanted* pregnancy. Finally, this study did not address how attitudes toward pregnancy may change during a pregnancy.

CONCLUSIONS

Despite these limitations, our study clearly indicates that meanings associated with the intention status of pregnancy are more heterogeneous than has been recognized in research, policy initiatives, and patient communications. We believe that these issues are sufficiently compelling to warrant our recommendation that physicians look beyond the traditional terms of planned or wanted pregnancy in their clinical work, and that they actively address the involvement of male partners, family, and friends in pregnancy. Many physicians may already be doing so. Further research will be required to document current physician practice and to establish the most appropriate and effective ways for physicians to assess the intention status and social context of pregnancies.

Our results also have implications for future population-based research on the association between pregnancy intendedness and pregnancy outcomes and resulting public policy initiatives. One objective of the Public Health Service is to reduce the proportion of all pregnancies that are considered unintended to 30% by the year 2000.²⁰ However, current approaches to assessing pregnancy intention may not provide optimally valid results.²¹ Recent research suggests that more sophisticated measures of pregnancy intendedness than have been employed in the past may have greater predictive power for adverse pregnancy outcomes.²²

As further qualitative studies of both women and men are completed in other populations, the results could become a basis for future efforts to create validated measurement scales to provide more consistent meanings for these terms. Such scales could then be used in population-based research to define more clearly the relationship between the dimensions of intendedness and outcomes of pregnancy. Streamlined versions of such scales could be validated and made available to help physicians assess the intention status of a pregnancy. These scales could also be used to investigate the most effective interventions by physicians and other members of the health care team to improve pregnancy outcomes.

ACKNOWLEDGMENTS

Funding for this study was provided in part by the Health Research Center, Department of Family and Preventive Medicine, University of Utah. The authors wish to acknowledge

the helpful reviews of Nancy E. Elder, MD, MSPH; Merry-K Moos, RN, FNP, MPH; Leonard J. Haas, PhD; Ruth Peterson, MD, MPH; Marjorie Sable, DrPH, MSW; Richard Fehring, RN, DNSc; and the anonymous peer reviewers from the *Journal of Family Practice*.

REFERENCES

1. Brown SS, Eisenberg L. The best intentions: unintended pregnancy and the well being of children and families. Washington, DC: National Academy Press, 1995.
2. Joyce TJ, Grossman M. Pregnancy wantedness and the early initiation of prenatal care. *Demography* 1990; 27:1-16.
3. Chandra UA. Health aspects of pregnancy and childbirth: United States 1982-88. *Vital Health Stat* [23], 1995.
4. Weller RH, Eberstein IW, Bailey M. Pregnancy wantedness and maternal behavior during pregnancy. *Demography* 1987; 24:407-12.
5. Morris NM, Undry JR, Chase CL. Reduction of low birth weight birth rates by the prevention of unwanted pregnancies. *Am J Pub Health* 1973; 63:935-6.
6. Muylder XD, Wesel S, Dramaix M, et al. A woman's attitude toward pregnancy: can it predispose her to preterm labor? *J Reprod Med* 1992; 37:339-42.
7. Zuravin S. Unplanned childbearing and family size: their relationship to child neglect and abuse. *Fam Plann Perspect* 1991; 23:155-61.
8. Baydar N. Consequences for children of their birth planning status. *Fam Plann Perspect* 1995; 27:228-45.
9. Myhrman A, Olsen P, Rantakallio P, Laara E. Does the wantedness of a pregnancy predict a child's educational attainment? *Fam Plann Perspect* 1995; 27:116-19.
10. Petersen R, Moos MK. Defining and measuring unintended pregnancy: issues and concerns. *Women's Health Issues* 1997; 6:234-40.
11. Pohlman E. *Psychology of birth planning*. Cambridge, Mass: Schenkman Publishing, 1969.
12. Rosenfeld JA, Everett KD. Factors related to planned and unplanned pregnancies. *J Fam Pract* 1996; 43:161-6.
13. Marshall C, Rossman GB. *Designing qualitative research*. 2nd ed. Thousand Oaks, Calif: Sage Publications, 1995.
14. Rothe JP. *Qualitative research: a practical guide*. Toronto, Ontario, Canada: RCI Publications 1993.
15. Miles MB, Huberman AM. *Qualitative data analysis*. Thousand Oaks, Calif: Sage Publications, 1994.
16. Glaser BG, Strauss AL. *The discovery of grounded theory*. Chicago, Ill: Aldine, 1967.
17. Moos MK, Peterson R, Meadows K, Melvin CL, Spitz AM. Pregnant women's perspectives on intendedness of pregnancy. *Women's Health Issues* 1997; 7:385-92.
18. Thompson E, McDonald E, Bumpass LL. Fertility desires and fertility: hers, his and theirs. *Demography* 1990; 27: 579-88.
19. US Bureau of the Census. *Statistical abstract of the United States*. 115th Ed. Washington, DC: US Dept. of Commerce, 1995.
20. Public Health Service. *Healthy people 2000: national health promotion and disease prevention objectives—full report, with commentary*. Washington, DC: US Department of Health and Human Services, Public Health Service, 1991.
21. Kaufmann RB, Morris L, Spitz AM. Comparison of two question sequences for assessing pregnancy intentions. *Am J Epidemiol* 1997; 145:810-16.
22. Sable MR, Spencer JC, Stockbauer JW, Schramm WF, Howell V, Herman AA. Pregnancy wantedness and adverse pregnancy outcomes: differences by mother's race and Medicaid status. *Fam Plann Perspect* 1997; 29:76-81.