

Unplanned Pregnancies in a Midwestern Community

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Despite widespread birth control availability and increasing emphasis on sex education, a large proportion of childbearing continues to be unplanned. Using an anonymous questionnaire, unplanned pregnancies were studied in Cedar Rapids, Iowa. Of 1,003 women who completed questionnaires, 56 percent had had one or more unplanned pregnancies, and 44 percent of all pregnancies were found to be unplanned. This study confirms the findings of other studies which have shown a similar proportion of unplanned pregnancies. More unplanned pregnancies occur in the younger, lower socioeconomic population. Women generally consider their lives unchanged or improved because of these unplanned births. However, unhealthy aspects of some unplanned pregnancies include self-blame and negative feelings toward both the father and baby. Furthermore, a considerable number of young women lack adequate birth control knowledge, and they desire more family planning information from their physicians.

A large body of literature has developed on the topic of family planning.¹⁻¹⁷ In 1977, Anderson et al¹⁵ documented family planning practices in upstate New York and found a close correlation between an increased number of unplanned children and families of lower socioeconomic status. Anderson and Smith also reported a similar earlier study in Atlanta, Georgia, which showed higher unplanned fertility among blacks than among whites.¹⁶ The reason cited was that blacks tend to have a lower socioeconomic and educational level than whites. The National Natality Surveys of 1968, 1969, and 1972 showed that about 10 percent of all births were not wanted and another 25 percent were mistimed.¹⁷ Anderson's study in 1974 revealed a 44 percent rate of unplanned live births,

and the National Fertility Study of 1970 found a 43 percent rate of unplanned live births.

Despite widespread birth control availability and increasing emphasis on sex education, a large proportion of childbearing continues to be unwanted or mistimed. In the authors' experience in a family practice residency, the following impressions began to develop: (1) perhaps one half of all pregnancies were unplanned, (2) the majority of unplanned pregnancies occurred in lower socioeconomic populations, (3) unplanned pregnancies appeared detrimental to both parents and children, and (4) there was a need for more prevention of unplanned pregnancies. Thus the present study emerged with the following purposes in mind: (1) to accurately determine the frequency of unplanned pregnancies in Cedar Rapids, Iowa, (2) to compare local results with the previous studies mentioned, and (3) to gain insight into better management and prevention of unplanned pregnancies.

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Table 1. Demographic Characteristics of Respondents Compared with Women Aged 15 to 40 Years Residing in Cedar Rapids, Iowa SMSA

	Respondents No. (%)	1970 Census No. (%)
Age (yr)		
15-19	122 (12.2)	5,414 (29.2)
20-25	374 (37.4)	5,581 (30.2)
26-30	287 (28.7)	7,512 (40.6)*
31-40	217 (21.7)	
Marital Status		
Married	759 (75.7)	25,958 (60.3)
Single	166 (16.5)	10,222 (23.7)
Divorced	54 (5.4)	2,001 (4.6)
Separated	20 (2.0)	395 (1.0)
Widowed	4 (0.4)	4,901 (11.4)
Religion		
Catholic	272 (27.3)	
Protestant	571 (57.3)	
None	112 (11.2)	
Other	42 (4.2)	
Education		
Some elementary	4 (0.4)	
Eighth grade	75 (7.5)	
High school	538 (53.9)	
College	382 (38.2)	
Income		
\$5,000 or less	175 (18.2)	3,611 (13.0)
\$5,000-\$10,000	180 (18.7)	8,175 (29.4)
\$10,000-\$20,000	368 (38.3)	14,874 (53.6)**
\$20,000 or greater	239 (24.8)	1,104 (4.0)

From US Bureau of the Census, Census of Population and Housing: 1970, Census Tracts, Final Report PHC(1)-37 Cedar Rapids, Iowa
 *Range, 25 to 34 years
 **Income interval, \$10,000-\$25,000

Methods

The current study utilized the resources and patients of the Cedar Rapids Family Practice Residency Program. This program is located in Cedar Rapids, Iowa, a midwestern city with a current population of approximately 110,000. Twenty-four resident physicians work in two community hospitals (Mercy Hospital with 403 beds, and St. Luke's Methodist Hospital with 599 beds). The residency has been in existence since 1971.

A 33-item questionnaire* was developed to gather the research data.^{18,19} There were two general sections to the questionnaire: (1) questions covering demographic data such as age,

marital status, race, religion, education, income, and number of children, and (2) specific questions concerning topics such as sex education, unplanned pregnancies, birth control methods, and attitudes. The questionnaires were distributed between July and December 1979 to women aged 15 to 40 years who had ever been pregnant or were currently pregnant. Four settings were used to obtain study subjects. These included (1) the Family Practice Center, the model office for the Cedar Rapids Residency Program, (2) the Family Health Center, a high-volume family planning clinic staffed by rotating family practice residents, (3) private family physician offices in the community, and (4) private obstetrician-gynecologist offices in the community. Receptionists in the respective offices invited all patients in the waiting rooms

*Available from the authors upon request.

Table 2. Respondent's Number of Children and Number of Unplanned Pregnancies

	Children in Families No. (%)	Unplanned Pregnancies No. (%)
None	276 (27.6)	433 (43.6)
1	363 (36.3)	403 (40.6)
2	240 (24.0)	116 (11.7)
3	79 (7.9)	34 (3.4)
4	30 (3.0)	4 (0.4)
5 or more	12 (1.2)	3 (0.3)
Total	1,271 (100.0)	771 (100.0)

who had ever been pregnant or were currently pregnant to fill out questionnaires. No attempt was made to otherwise select patients. Less than 5 percent of the women chose not to participate.

Data from the completed questionnaires were computerized and analyzed using the Statistical Package for the Social Sciences (SPSS) Program.²⁰

Results

A total of 1,003 completed questionnaires were collected. By collection site, 102 study patients came from the Family Practice Center, 266 patients came from the Family Health Center, 133 patients came from private family physician offices, and 502 patients came from private obstetrician-gynecologist offices. Table 1 presents demographic information for the overall study group of 1,003 patients compared with data from the 1970 census for the Cedar Rapids SMSA (standard metropolitan statistical area). It is understandable that there are major differences in these two populations because the study population only included women aged 15 to 40 years who had ever been pregnant.

Table 2 displays the number of live children in current families, representing a total of 1,271 children. In response to the question, "Are you pregnant now?" 46.3 percent responded "yes," 50.5 percent responded "no," and 3.2 percent were uncertain. Table 2 also shows the number and distribution of unplanned pregnancies per respondent. This represents a total of 771 unplanned children. Summing the total number of live children (1,271) and the total number of current pregnancies (463) provided a total possible pregnancy number of 1,734. Of this total, 771 (44 percent) were thus determined to be unplanned. The infor-

mation in Table 3 illustrates the breakdown of unplanned pregnancies according to age group, marital status, religion, education level, and income level. There were significantly more unplanned pregnancies in the 15- to 19-year age group, with a decreasing trend in this percent in the older age groups ($P < .001$). Concerning marital status, there is noted a much greater percent of unplanned pregnancies in those women single, divorced, separated, or widowed as opposed to those married ($P < .001$). Of Catholic patients reporting, 62 percent had had one or more unplanned pregnancies, whereas Protestant respondents reported 52 percent unplanned pregnancies ($P < .005$). The number of unplanned pregnancies was inversely related to education level ($P < .001$). Finally, there was a clear trend in decreasing number of unplanned pregnancies with increasing income ($P < .001$).

Table 4 shows the reasons given for unplanned pregnancies. By far the highest category (46 percent) was due to carelessness. Eighteen percent of respondents suggested there was a combination of reasons for their unplanned pregnancies.

The questionnaire also revealed the respondent's feelings when learning of the unplanned pregnancy. Twenty-four percent said they were frightened, 22 percent said they were happy, and 33 percent responded with a combination of emotions. Fifty-four percent of the women responded that their lives were better after the unplanned pregnancy, 42 percent responded their lives were unchanged, and 4 percent responded their lives were worse. Twenty-four percent of the respondents felt the unplanned pregnancy had a positive effect on their feelings toward the unplanned child, 2 percent developed negative feelings, and 74 percent suggested no change or were unable to answer. In contrast, 31 percent developed positive feelings toward the father of this unplanned child, 25 percent had negative feelings, and 44 percent reported no change in their attitude toward the father.

The authors found that 57 percent of the respondents blamed themselves for the unplanned pregnancies. Eleven percent of the respondents indicated that they had often thought it might be better to have fewer children, and 32 percent suggested that they thought of this occasionally.

Women reported learning about birth control methods from four major sources. Twenty-nine

Table 3. Unplanned Pregnancies by Demographic Categories

	None No. (%)	One or More No. (%)	Chi Square Significance
Age (yr)			
15-19	27 (22)	95 (78)	
20-25	152 (41)	219 (59)	
26-30	153 (54)	130 (46)	* $\chi^2 = 37.05, 3 df, P < .001$
31-40	99 (46)	116 (54)	
Marital Status			
Married	391 (52)	360 (48)	
Single	23 (14)	143 (86)	
Divorced	14 (26)	40 (74)	$\chi^2 = 97.38, 4 df, P < .001$
Separated	2 (11)	17 (89)	
Widowed	0 (0)	4 (100)	
Religion			
Roman Catholic	102 (38)	167 (62)	
Protestant	272 (48)	295 (52)	
None	39 (35)	72 (65)	$\chi^2 = 12.38, 3 df, P < .005$
Other	21 (52)	19 (48)	
Education			
Eighth grade	23 (29)	56 (71)	
High school	209 (39)	326 (61)	$\chi^2 = 23.6, 2 df, P < .001$
College	200 (53)	178 (47)	
Income			
\$5,000 or less	44 (25)	130 (75)	
\$5,000-\$10,000	58 (32)	122 (68)	
\$10,000-\$20,000	175 (48)	190 (52)	$\chi^2 = 62.18, 3 df, P < .001$
\$20,000 or greater	143 (60)	95 (40)	

percent reported learning from a physician, 20 percent from reading, 10 percent from friends or relatives, 8 percent from school, and 27 percent from a combination of sources. The study revealed that those women with less education reported the primary source of birth control knowledge came from a physician or nurse, while more educated women reported learning mostly from their own reading. Overall, 69 percent of respondents reported they knew as much as they needed to know about birth control. Despite this, 49 percent responded "yes" to the question, "Should your physician offer more help with birth control?"

Discussion

In this study population, 44 percent of live births were determined to be unplanned. Thus the initial impression that nearly one half of all pregnancies are unplanned was supported. The results correspond remarkably with the 44 percent unplanned births in the 1974 Albany Study, and the

Table 4. Reasons Given for Unplanned Pregnancies

	No. (%)
Carelessness	258 (46)
Birth control method failure	84 (15)
Lack of knowledge	62 (11)
Other	56 (10)
Combination of reasons	101 (18)

43 percent figure for the 1970 National Fertility Study.^{15,17} It is also interesting to note that overall 56 percent of all women in this study had one or more unplanned pregnancies.

As suspected, the majority of unplanned pregnancies occurred in the lower socioeconomic segment of the study population. In this study the proportion of unplanned pregnancies was increased (60 to 70 percent) in the lower income, lower education, and younger age groups. The findings in this study were thus consistent with

those of previous studies. But even in the higher income, more educated, and older age groups, the proportion of unplanned pregnancies was quite high (40 to 50 percent).

That unplanned pregnancies were detrimental to the family was not strongly supported. In this study, 96 percent of the women who had unplanned pregnancies reported their lives were either better or unchanged after the pregnancy. Most of the negative feelings reported were toward the fathers (25 percent); only 2 percent had negative feelings toward the children.

The majority of women attributed their unplanned pregnancies to carelessness. Most women (57 percent) blamed themselves for the unplanned pregnancies. Only 69 percent of the women felt they knew as much as they needed to about birth control, and 49 percent wanted more physician assistance with birth control. The authors believe these statistics support the concern that there is a need for both more prevention of unplanned pregnancies and more education regarding birth control methods.

It is important to acknowledge the potential limitations of data collection using self-completed questionnaires. Though the number of waiting room patients declining to take part in the study was less than 5 percent, this could have allowed a self-selected study group with intrinsic bias. The personal nature of the questions may have led to differences in response because of a socially desirable response bias. However, underreporting rather than over-reporting of sensitive data such as those gathered in this study would be expected. Further, there may have been women in this study with a past history of abortions, which were not counted as planned or unplanned pregnancies and thus not included in the study. Finally, the number of women who had unplanned pregnancies decreases with age. This finding may be due in part to the time lag between that pregnancy and when this questionnaire was answered. For example, a woman who is 36 years old and had a pregnancy ten years ago may have a different perception of that pregnancy than a woman who had a pregnancy one year ago. An intervening event such as a divorce may also affect a woman's perception of the previous pregnancy. In spite of these limitations, the results are likely to be conservative estimates regarding a common family practice problem.

In conclusion, the study has documented that

there is a large number of unplanned pregnancies in this study population. It is particularly high in certain segments of the study population. In spite of this, women with unplanned pregnancies seem to adapt to the new situation very well. The reasons given for unplanned pregnancies (carelessness, contraceptive method failure, and insufficient knowledge) deserve further investigation. Many women want and would benefit from more family planning assistance from their physicians, paramedical personnel, or from appropriate and understandable patient education literature.

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