Valued Outcomes in the Selection of a Contraceptive Method

ERIC M. WALL, MD, MPH, *San Bernardino, California*

The perceptions and values of a sample of 106 women towards four contraceptive methods (oral contraceptives, intrauterine device, diaphragm and foam-and-condoms) were evaluated in the light of 24 identified issues of concern. The choice of a contraceptive method appears to represent a trade-off among negatively valued outcomes—the "best" method being least likely to incur undesirable consequences.

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For most women, choosing a birth control method is a difficult decision due to the variety of methods available and the degree of risk involved with their use. The few reported studies of contraceptive decision making[1-3] help to identify the sociodemographic characteristics of women who use a given contraceptive method. Comparatively little is known, however, about the important factors that influence a woman's choice of a specific method.

The process of selecting a birth control method involves two levels of decisions (Figure 1). First, a woman must decide whether she wishes contraception at all. Luker[4] has hypothesized a cost-benefit model whereby women weigh the relative value of pregnancy against the costs of contraception. When the value of pregnancy is low and the perceived likelihood of becoming pregnant without contraception is high, women begin to evaluate the contraceptive methods available to them. The second-order decision concerns her selection of a specific birth control method.

In considering alternative birth control methods logically, women must first identify the important issues of concern to them. Each such concern must then be weighed in terms of its relative value and its likelihood of occurrence when using each method being considered. That none of the existing methods is free from undesirable consequences means that difficult trade-offs must inevitably be made.

To examine this complex process of contraceptive decision making, I first identified the concerns of women that influence their selection of a contraceptive method. Next, in light of these concerns, I explored the perceptions and values of women towards four contraceptive methods.

Patients and Methods

To identify the important concerns associated with selecting a contraceptive method, an open-ended questionnaire was distributed to 23 women in a private family practice and a family practice residency program. All had had some experience with contraception. A list of 93 factors or concerns was compiled from their responses. Seven women from the above sample were then asked to reduce this list by eliminating duplicated and vague statements. In all, 24 factors were finally selected. From these, a two-part questionnaire was developed and pretested (N=8) for clarity and comprehensiveness.

The first part of the questionnaire solicited women's perceptions of the likelihood that each concern or outcome would result from using each of four contraceptive methods (diaphragm, pill, intrauterine device or foam-and-condoms) on a scale ranging from 1 (very unlikely) to 5 (very likely). In the second section they were asked to estimate the value of each concern on a scale of 1 (very bad) to 5 (very good) independent of contraceptive method. Also included were questions pertaining to the respondent's age, marital status, parity, contraception used (present and past) and her satisfaction with her current method.

From the Department of Family Medicine, University of California, Irvine, and the Department of Family Practice, San Bernardino County Medical Center, San Bernardino, California.

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Reprint requests to Eric M. Wall, MD, MPH, Dept of Family Practice, San Bernardino County Medical Center, 780 E Gilbert Street, San Bernardino, CA 92404.

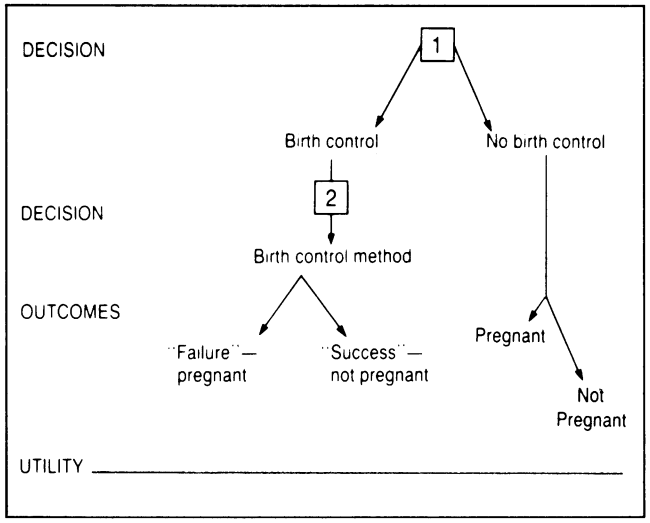

Figure 1.—Two levels of birth control decision making.

The questionnaire was then distributed to 106 women from a private family practice, a family practice residency program and a high school physical education class who represented a wide range of contraceptive experience. Selection of subjects was restricted to nonpregnant women aged 45 years and younger for whom contraception would be a relevant concern. As best as could be determined, none of the women had any special knowledge of birth control apart from that of the general population.

Results

In Table 1 are listed the demographic characteristics and contraceptive preferences of the sample population. Most were young, single and childless. The vast majority were using some form of contraception. Oral contraceptive users constituted about half of the sampled population, followed by those using a diaphragm. Most women appeared quite satisfied with their chosen method.

TABLE 1.—*Characteristics of Sample Population (N=106)*

	Number	*(Percent)*
Mean Age (years)	25.8	(range, 14-45)
Marital Status		
Single	64	(60.4)
Married	32	(30.2)
Separated/Divorced	10	(9.4)
Parity (mean, 0.51)		
0	77	(72.6)
1	12	(11.3)
2	11	(10.4)
3	4	(3.8)
4	2	(1.9)
Using Contraception		
Yes	90	(84.9)
No	16	(15.1)
Current Method*		
Pill	37	(43.0)
Diaphragm	18	(21.0)
Foam/condoms	11	(13.0)
Intrauterine device	6	(7.0)
Satisfied with Current Method*		
Very satisfied	35	(40.7)
Satisfied	33	(38.4)
Neither	10	(11.6)
Dissatisfied	7	(8.1)
Very dissatisfied	1	(1.2)

*Current methods not listed include tubal ligation (4) and other (11). Four persons did not respond to questions about current method and satisfaction with this method.

From the responses to the open-ended questionnaire, the concerns related to contraceptive decision making could be divided into nine groups. These included moral or religious beliefs towards contraception, the effects of a contraceptive method on sexual relations (spontaneity, enjoyment, frequency of intercourse), partner-related issues (acceptability, knowledge of method), convenience, side effects or health risks, anxiety or fear related to method usage, effects on present or future pregnancies, normative influences (advice of family, friends or personal physician) and a woman's sense of personal responsibility for birth control.

Four contraceptive methods were evaluated in light of these concerns (Table 2). All methods were perceived as unlikely to compromise a woman's moral or religious beliefs or influence the stability of her relationship. The diaphragm and foam-and-condoms were felt to be less convenient principally due to their interference with the spontaneity of intercourse. In addition, there was perceived a higher likelihood of pregnancy associated with these methods. The intrauterine device and oral contraceptives were felt to increase health risks and anxiety over these potential adverse effects.

While one might expect that a couple could not use the foam-and-condom method without complete knowledge of its use or that the diaphragm could be perceived to be used successfully without the "need to touch self" (Table 2, "convenience"), responses tended to follow a central bias, avoiding the extreme ends of the five-point scale. The trend of the responses does indicate, however, that the questions were adequately understood by the sampled population.

Table 3 shows how respondents valued the identified issues of concern independent of the contraceptive method used. Increased partner involvement and personal responsibility for birth control were positively valued. Negatively valued factors included a compromise of moral or religious beliefs; interference with sexual activity; inconvenient methods; increased fear or anxiety; increased risk of adverse side effects or pregnancy, and the advice of friends, family or physician against a method's use.

The values were then analyzed by age (Table 4), marital status (Table 5) and parity (Table 6) of respondents. Women aged 20 years and younger tended to place less importance on adverse side effects or increased fear related to the use of any contraceptive. Pregnancy was more negatively valued by single, nonparous women. While other findings were not statistically significant, several interesting trends were noted. Moral or religious concerns, impact on sexuality and greater health risks with concomitant fear or anxiety

TABLE 2.—*Perceptions Towards Selected Contraceptive Methods*

Consideration	Mean Scores of Respondents* IUD	Pill	Diaphragm	Foam/Condoms
Compromise moral/religious beliefs	1.9	1.9	1.8	1.7
Effects on sexual relationship				
Less enjoyable sex	2.1	1.4	3.1	3.6
Interrupts spontaneity	1.6	1.2	3.7	4.1
Partner-related issues				
Unacceptable to partner	2.1	1.7	2.2	3.1
Stabilize relationship	2.5	2.6	2.2	2.0
Partner knows of method	2.9	2.6	4.2	4.7
Convenience				
Easy to use	3.6	4.3	2.1	1.9
Must remember to use method	1.6	4.2	4.0	4.0
Advanced planning necessary	1.6	1.8	4.3	4.2
Need to touch self	2.1	1.6	4.8	4.4
Side effects, health risks				
Dangerous	4.1	3.9	2.4	2.3
Increases health risks	3.7	3.9	1.9	1.8
Painful or uncomfortable to use	3.3	1.7	2.9	2.5
Anxiety or fear				
Increases anxiety about health	3.9	3.9	2.0	2.0
Increases fear of getting pregnant	2.1	1.7	3.1	3.6
Increases fear of losing control	2.9	2.3	1.6	2.5
Pregnancy/children				
Use results in pregnancy	1.8	1.6	2.6	3.0
Use results in sterility	2.0	1.8	1.4	1.3
Normative influences				
Advised against by family or friends	3.2	3.1	2.1	2.4
Advised against by MD	3.2	3.0	2.0	2.1
Leads to personal or sole responsibility for contraception	4.5	4.5	4.1	2.4

IUD = intrauterine device

*Responses were indicated on the following scale: 1 = very unlikely, 2 = unlikely, 3 = neutral, 4 = likely and 5 = very likely.

TABLE 3.—*Values of Respondents Toward Identified Concerns*

Issue of Concern	Mean Score*	Standard Deviation
Compromise moral/religious beliefs	− .59	.96
Interference with sexual activity	− .55	.55
Increased partner involvement	.39	.42
Inconvenient method	− .06	.39
Increased risk of adverse side effects	−1.33	.63
Increased fear or anxiety	−1.21	.65
Increased risk of pregnancy	−1.04	.86
Negative advice of friends, family, MD	− .34	.61
Personal responsibility for birth control	.01	1.12

*Responses were scored according to the following scale: −2 = very bad, −1 = bad, 0 = neutral, +1 = good and +2 = very good.

became more important concerns for older, married women of higher parity. Conversely, partner-related issues and the impact of pregnancy were of less importance to married, parous women.

Discussion

The findings of this study highlight the complexity surrounding contraceptive decision making. No single method was preferred by all women in this sample. Rather, the choice of a specific method varied with the age, marital status and parity of the respondents. Contraceptive decision making appears to be a dynamic, evolving process dependent on those variables related to a woman's life-style and situation.

Complexity is again revealed in an analysis of the estimates of likelihood and value judgments solicited in the questionnaire. Likelihood estimates varied according to the particular issue of concern and the contraceptive method under consideration. As the issues of concern were in large part negatively valued, the choice of a "best" contraceptive method seems to involve selecting the one least likely to incur undesirable consequences. When most of these consequences are perceived in a negative light, difficult trade-offs must inevitably be made.

TABLE 4.—*Values by Age of Respondents*

Issue of Concern	Age of Respondents (Years) 14-20 (N = 29) Mean Score*	14-20 (N = 29) Standard Deviation	21-45 (N = 77) Mean Score*	21-45 (N = 77) Standard Deviation
Compromise moral/religious beliefs	− .31	1.00	− .70	.92
Interference with sexual activity	− .38	.76	− .62	.43
Increased partner involvement	.40	.41	.38	.42
Inconvenient method	− .03	.56	− .08	.30
Increased risk of adverse side effects	−1.08†	.76	−1.42†	.55
Increased fear or anxiety	− .87†	.85	−1.34†	.50
Increased risk of pregnancy	−1.05	1.06	−1.03	.77
Negative advice of friends, family, MD	− .37	.84	− .33	.51
Personal responsibility for birth control	.21	1.11	− .07	1.12

*Responses were scored according to the following scale: −2 = very bad, −1 = bad, 0 = neutral, +1 = good, +2 = very good.
†$P < .05$

TABLE 5.—*Values by Marital Status*

Issue of Concern	Single (N=64) Mean Score*	Single (N=64) Standard Deviation	Married (N=32) Mean Score*	Married (N=32) Standard Deviation	Separated/ Divorced (N=10) Mean Score*	Separated/ Divorced (N=10) Standard Deviation
Compromise moral/religious beliefs	− .48	.93	− .72	1.02	− .90	.88
Interference with sexual activity	− .52	.60	− .60	.49	− .62	.39
Increased partner involvement	.44	.40	.27	.44	.43	.39
Inconvenient method	− .05	.43	− .06	.34	− .17	.21
Increased risk of adverse side effects	−1.26	.67	−1.42	.56	−1.47	.53
Increased fear or anxiety	−1.14	.72	−1.32	.50	−1.30	.53
Increased risk of pregnancy	−1.22†	.90	− .66†	.70	−1.10†	.70
Negative advice of friends, family, MD	− .36	.70	− .27	.48	− .43	.39
Personal responsibility for birth control	− .05	1.05	− .03	1.23	− .10	1.29

*Responses were scored according to the following scale: −2=very bad, −1=bad, 0=neutral, +1=good and +2=very good.
†$P < .05$

TABLE 6.—*Values by Parity*

Issue of Concern	Parity 0 (N=77) Mean Score*	0 (N=77) SD	1 (N=12) Mean Score*	1 (N=12) SD	2 (N=11) Mean Score*	2 (N=11) SD	3 (N=4) Mean Score*	3 (N=4) SD	4 (N=2) Mean Score*	4 (N=2) SD
Compromise moral/religious beliefs	− .50	.92	− .67	.98	−1.00	1.18	− .75	.96	−1.00	1.41
Interference with sexual activity	− .56	.59	− .40	.36	− .54	.47	− .81	.55	−1.00	0.00
Increased partner involvement	.43	.41	.31	.52	.30	.35	.17	.33	.17	.71
Inconvenient method	− .05	.42	− .04	.30	− .14	.28	− .31	.37	0.00	0.00
Increased risk of adverse side effects	−1.32	.67	−1.22	.50	−1.42	.60	−1.25	.32	−2.00	0.00
Increased fear or anxiety	−1.19	.69	−1.11	.41	−1.36	.66	−1.17	.43	−1.83	.24
Increased risk of pregnancy	−1.17†	.88	− .54†	.58	− .95†	.85	− .50†	.58	− .50†	.71
Negative advice of friends, family, MD	− .32	.67	− .33	.38	− .58	.45	− .08	.42	− .33	.47
Personal responsibility for birth control	− .01	1.10	.25	1.21	.09	1.30	− .50	.58	−1.00	1.41

*Responses were scored according to the following scale: −2=very bad, −1=bad, 0=neutral, +1=good and +2=very good.
†$P < .05$

As most women were using a birth control method of their choice, it is still speculative as to whether these findings would hold for a population of unexperienced women seeking their first contraceptive method. Future studies should focus on this population for whom decision making might well be more problematic. Many of the younger respondents in this study requested more information regarding the methods mentioned. To be sure, making an intelligent decision presupposes that the necessary information surrounding that decision has already been obtained. The apparent informational gap hinted at in this study warrants further investigation and correction by concerned health care professionals.

The decision to use contraception is important, complex and value-laden. As such, an aid for selecting a contraceptive method may be useful in making explicit the underlying perceptions and values of the decision maker. Such clarification of values might serve to crystallize the information obtained or point out the need for further information before a decision could be made. To the clinician, such information might indicate a more appropriate and acceptable contraceptive choice. To the woman herself, such information could help to promote meaningful dialogue with her sexual partner of a wide variety of issues surrounding contraception.

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