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Termination of Pregnancy and Women's Sexuality

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Key Words
Termination of pregnancy · Sexuality · Sexual dysfunction · Libido

Abstract
Objective: To determine the influence of termination of pregnancy (TOP) on women's sexuality. ***Design:*** Prospective qualitative and quantitative study. ***Subjects:*** 103 women undergoing induced abortion by vacuum aspiration, interviewed 1–3 weeks before surgery and 6 months later. ***Results:*** After TOP, patients described symptoms of fatigue (39%), feelings of guilt (35%), sadness (34%) and anxiety (29%). Thirty-one percent of women presented at least one sexual dysfunction, 18% a decrease in sexual desire, 17% orgasmic disorders, 12% vaginal dryness and 11% dyspareunia. These sexual dysfunctions were correlated with anxiety and symptoms of depression following TOP. Six months after TOP, 57% of the women reported no change in their sexual satisfaction, 17% were 'more satisfied' and 7% 'less satisfied'. Lessening of sexual satisfaction after TOP was correlated with diminished partner satisfaction ($p < 0.00001$), fatigue ($p < 0.0009$), feelings of guilt ($p < 0.01$), low frequency of sexual relations ($p < 0.01$) and anxiety over sexual relations ($p < 0.02$). ***Conclusions:*** Six months after TOP some women presented persisting sexual dysfunction. This sexual dysfunction may be explained essentially by the appearance of symptoms of anxiety and depression following TOP. When the quality of the relationship was satisfying, women could cope more easily with the appearance of a sexual dysfunction.

Introduction

Over 100 million acts of sexual intercourse take place each day in the world [1]. These result in about 910,000 conceptions, of which about 25% are unwanted. About 150,000 unwanted pregnancies are terminated every day. In many countries where termination of pregnancy (TOP) has been legalized, maternal mortality and morbidity due to unsafe abortion has dropped considerably [2].

In Switzerland, the TOP rate is among the lowest in Europe and is estimated at 8.3 per thousand women of reproductive age [3]. It is regulated by the penal code of 1942 and allowed only for a limited number of indications ('severe risk of injury to the health of the pregnant woman'), and with a certificate from a second physician [4]. Psychiatric complications of TOP are rare, psychological problems are generally of short duration and the majority of women experience a feeling of relief after TOP [5, 6]. Although there may be regret, sadness, guilt, legal elective abortion in the first trimester does not pose a psychological hazard for most women and the incidence of

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severe negative response, such as depression or anxiety, is low [5].

The consequences of TOP for sexuality and couple relations are relatively unknown. We found only 4 studies evaluating sexuality after TOP [7]. One was prospective, using a control group [8], two were retrospective [9, 10] and one was a case-control study comparing women with two or more previous elective abortions with women attending the hospital for delivery [11]. It should be noted, also, that the sample sizes were small in most studies (only one study included more than 100 women) and definitions of sexual disorders were frequently obsolete.

The prospective study by Freudenberg and Barnett [8] found that, at 1-year follow-up, 18.5% of women who had undergone TOP reported decreased coital frequency and 5.4% reported decreased sexual satisfaction. Bianchi-Demicheli and Gyr [9] interviewed 85 women who had undergone an early first trimester termination (<12 weeks gestation) 3–6 months before. Of those who accepted to answer the question, 29.4% reported reduced sexual desire, 18.8% orgasmic problems and 11.8% dyspareunia. Vasilev [10] questioned 1,900 women who had undergone elective abortion. About 30% of women reported having orgasms less frequently than in the pre-abortion period. Pasini [11] compared 50 women who had had at least 2 previous induced abortions to 50 women who continued with their pregnancy to term, and who had not had a prior termination. More women reported reduced sexual desire statistically in the repeat abortion group (38%) than in the control group (10%). Orgasm was reported by 20% of women in the study group, compared with 44% in the control group.

The objective of this study was to evaluate the influence of induced abortion on sexuality before TOP and 6 months later. Our hypothesis was that sexual life could be particularly affected by a procedure involving the genital organs and reproduction.

Material and Methods

Data were collected on sexual life and the couple's relationship before and after induced elective abortion in a sample of 103 women. Participation in the study was proposed to all women who were referred to the Department of Gynecology and Obstetrics of the University Hospital, or to the Family Planning Center of Geneva (Switzerland) for TOP. Recruiting selection criteria were a pregnancy of less than 12 weeks' duration, residence in Geneva, and capability to express oneself in French. Women asking for a tubal ligature at the same time were excluded. All TOP were performed by vacuum aspiration and curettage under general anesthesia. The first phase of the study lasted from August 1998 to January 1999. During this period, a total of 244 women underwent TOP at the Hospital. Sixty-one percent of these accepted to participate in the study.

Data Collection

The interviews were conducted by experienced personnel with specific training. All women were asked to provide written informed consent prior to the study according to the study protocol approved by the Ethics Committee of the Department of Obstetrics and Gynaecology. Women were interviewed at some time prior to the abortion procedure and 6 months later. Before and after the TOP the couples' relationship was evaluated by the 'Locke-Wallace Marital Adjustment Scale' [12, 13] or an adapted version for non-married couples where appropriate. Three categories of partner relationship were extracted from the questionnaire: (a) a good relationship; (b) presence of difficulties, and (c) crisis in the relationship. In order to assess the possible presence of psychological trauma due to the abortion, the 'Impact of Event Scale' according to Horowitz et al. [14] was administered. This test measures the traumatic impact of a specific event. The calculated score of the given answers were attributed to categories 'presence of a post-traumatic stress disorder (PTSD)' [15, 16] and 'absence of PTSD'.

Data Analysis

The information obtained from the interviews was entered through a WEB-based Intranet application in which data were bound to a SQL Server (Microsoft®) database. Data were entered twice and then screened for possible entry discordance. All women who answered the questions at both interviews were entered into the calculations. The McNemar test was used to compare frequency counts for categorical variables.

Results

Of the 150 women interviewed before TOP, 103 completed the 6-month post-TOP interview. Six months later, 110 women were found at follow-up. Two had chosen to continue the pregnancy, three had miscarried and two refused to answer the second questionnaire. Forty women were lost to the follow-up.

The mean age of the 103 women was 28 years; 87% had one specific partner, 5% had several partners, and 8% did not have a partner; 65% did not have a child and 35% had one or more children; 68% had never had a TOP and 32% had had one or more. Fifty-four percent were employed, 27% were students, 10% housewives, and 9% were unemployed.

The principal reasons for TOP were 'related to the partner' (relationship with no future, or viewed as too recent, or a pre-existing situation of crisis such as separation or divorce), 'socioeconomic' (financial problems or unemployment), the desire to complete her education and the feeling of being too young, or too old, to assume pregnancy.

Psychological Impact

After TOP, fatigue, feelings of guilt, sadness and anxiety were described, respectively, by 38, 34, 33 and 28% of patients (table 1). These symptoms were used as classical indicators of depression. At 6 months, women underwent the Horowitz test (Impact of Event Scale) in order to determine the existence of a possible psychological trauma. Eighty-nine percent of the women achieved a score lower or equal to 42 points, and 11% of the women had a score over 42, indicating the presence of PTSD 6 months after TOP. The absence of sexual intercourse 6 months after TOP was correlated with a higher score on the test ($p < 0.007$).

Before TOP 20% of patients experienced anxiety over sexual relations. After TOP, 24% of the women reported anxiety over sexual relations. Ten percent were not anxious after TOP, but 14% of those who reported no anxiety before the procedure, reported anxiety after TOP (table 2).

Sexual Dysfunction

Thirty-one percent of women presented at least one sexual dysfunction (decrease of desire, orgasmic disorders, vaginal dryness, or dyspareunia). Twelve women or 11% had one, 14 (13%) two, 4 (4%) three and 2 (2%) patients had four dysfunctions. Eleven percent of patients did not answer the questions concerning sexual dysfunction.

Twelve women (11.6%) reported an improvement in a preexisting sexual dysfunction. These women had reported no sadness (12/12), seldom anxiety (2/12) and also seldom symptoms of PTSD (1/12) after termination.

Libido

Eighteen percent of women reported a decrease in sexual desire after TOP (table 3). The decline in libido after the procedure was associated with an increase in anxiety ($p < 0.0001$), with anxiety over sexual relations ($p < 0.001$), PTSD ($p < 0.01$) and low satisfaction with sexual intercourse before TOP ($p < 0.02$).

No other factors were found to be significantly associated with post-TOP decrease of libido.

Table 1. Psychological symptoms and change after TOP

	No change		Increased		Diminished	
	n	%	n	%	n	%
Fatigue	61	59	39	38	3	3
Feelings of guilt	66	64	35	34	2	2
Sadness	68	66	34	33	1	1
Anxiety	68	66	29	28	6	6

Table 2. Anxiety concerning intercourse before and after TOP

	Anxiety before TOP		No anxiety before TOP		Total	
	n	%	n	%	n	%
Anxiety after TOP	10	10	15	14	25	24
No anxiety after TOP	10	10	68	66	78	76
Total	20	20	83	80	103	100

Table 3. Influence of termination of pregnancy on sexuality (TOP)

	No change		Increased		Diminished		No answer	
	n	%	n	%	n	%	n	%
Libido	73	71	9	9	19	18	2	2
Orgasm	74	72	2	2	18	17	9	9
Vaginal dryness	74	72	13	12	9	9	7	7
Dyspareunia	80	77	12	12	1	1	10	10

Orgasm

Two percent of women had not experienced orgasm before and after TOP (table 3). Seventeen percent of patients reported orgasmic disorders after TOP. Orgasmic disorders were associated with increased anxiety over sexual relations ($p < 0.0001$), fatigue ($p < 0.0004$), sadness ($p < 0.0003$) and general anxiety ($p < 0.002$). None of the other factors examined were significantly associated with orgasmic disorders.

Vaginal Dryness

Twelve percent of the women reported vaginal dryness after TOP (table 3). The only factor correlated with vaginal dryness persisting 6 months after TOP was anxiety over intercourse ($p < 0.002$). None of the other demographic or psychological examined factors were significantly correlated with a reported decrease in vaginal lubrication.

Dyspareunia

After TOP, 12% of women experienced painful sexual relations (table 3). Decrease in frequency of intercourse was associated with dyspareunia ($p < 0.03$).

Sexual Satisfaction

Before TOP, the majority of women considered their sexual life 'satisfying' or 'rather satisfying'. A minority considered their sexual life 'unsatisfying' or 'rather unsatisfying'. Six months after TOP, the results were similar for the women who had accepted to answer the question (table 2). For 57% of the women, no change had taken place, 17% were 'more satisfied' and 7% 'less satisfied' than before.

Low sexual satisfaction before TOP was associated with high anxiety concerning sexual relations ($p < 0.0001$), low Locke-Wallace score ($p < 0.003$) and low partner sexual satisfaction ($p < 0.02$) prior to TOP.

Decrease in sexual satisfaction after TOP was correlated with low partner satisfaction ($p < 0.00001$), fatigue ($p < 0.0009$), unemployment ($p < 0.004$), feelings of guilt ($p < 0.01$), low frequency of sexual relations ($p < 0.01$), low Locke-Wallace score ($p < 0.02$), anxiety over sexual relations ($p < 0.02$), and age ($p < 0.03$), prior to TOP. Both, before and after TOP the women reported a higher level of unsatisfying sexual relations for themselves than for their partners (table 4).

Frequency of Sexual Relations

The frequency of intercourse decreased slightly after TOP, declining from 3.05 to 2.6 on average per week. Nevertheless, 16 women did not answer this question and within this group 9 had not resumed sexual relations 6 months after TOP. Low frequency of intercourse was correlated with low sexual satisfaction ($p < 0.01$), low perceived partner sexual satisfaction ($p < 0.01$) and low score in the Locke-Wallace test (Rho of Spearmen = 0.6***). A significant difference in the frequency of sexual relations was found between the group with a Locke-Wallace score of 100 points or more (good relationship) and the group with a score under 80 points (crisis in the relationship) ($p < 0.0001$).

The Couple's Relationship

Before TOP, 90 women had been living with a partner and after TOP only 78 women reported themselves as living with him.

Before TOP, 84 women considered that they were in a stable relationship and accepted to answer the Locke-Wallace 'Marital Adjustment Scale'. Fifty-five percent (46) of the women obtained a score indicating a good cou-

Table 4. Comparison of sexual satisfaction before and after TOP

	Women's satisfaction				Partner's satisfaction reported by the woman			
	before TOP		after TOP		before TOP		after TOP	
	n	%	n	%	n	%	n	%
Satisfying sexual relations	75	83	75	83	79	87	73	80
Unsatisfying sexual relations	14	15	13	14	5	5	7	8
No answer, don't know	2	2	3	3	7	8	11	12
Total	91	100	91	100	91	100	91	100

ple relationship, 20% (17) were having important relational difficulties and 25% (21) were in a crisis situation. After TOP, 70 women considered that they still formed a stable couple with the same partner and 14 women had separated. The proportion of good couple relationships, of couples experiencing major relationship difficulties and couples 'in crisis' was found to be the same 6 months later.

Discussion

Sexuality depends on factors, such as sexual and gender identity and sexual orientation, and has been described as 'something more than physical sex and something less than all behaviors directed toward attaining pleasure' [17]. Sexual dysfunction has been defined as a disturbance in the sexual response cycle or as a person's inability to participate in a sexual relationship as she/he wishes [15, 16]. This can be expressed in several ways, such as absence of desire and arousal, or the physical inability to commence, maintain or complete a sexual interaction [15, 16]. Sexual dysfunction after TOP has been reported in the literature. Bianchi-Demicheli and Gyr [9] reported reduced sexual desire, orgasmic problems and dyspareunia after TOP and Vasilev [10] reported women having orgasms less frequently than in the pre-abortion period. In our study, 31% of the women presented at least one sexual dysfunction following TOP. About 20% of women experienced orgasmic disorders and a decrease in sexual desire, 12% vaginal dryness and 12% experienced dyspareunia at 6 months follow-up. These sexual dysfunctions seem to be explained essentially by the appearance of symptoms anxiety and depression following TOP. In a few cases, improvement in reported anxiety and depression after TOP appears to be associated with the diminution and disappearance of some sexual dysfunction reported before TOP.

At 6 months, sexual satisfaction remained on the whole the same, although the frequency of sexual intercourse had slightly decreased. This decrease reported by 13% of women can be partially explained by the fact that 10% of these women had not yet resumed sexual relations. The frequency of intercourse summarizes the sexual satisfaction and the quality of the relationship.

At the same time, sexual satisfaction appears to be explained by a good couple relationship, when sexuality is approached without anxiety in an adequate socio-economic context. The relationship and the TOP are related to each other insofar as the lack of a solid relationship is a major factor in determining that the pregnancy will not continue; it also probably contributes to a reduced sexuality after TOP.

The general risk factor seems to be anxiety over sexual relations. This can produce a decrease of sexual satisfaction and prolonged sexual dysfunction.

In the study of Freudenberg and Barnett [8], the impact of TOP on the couple's relationship and the quality of the partnership was assessed at enrolment and after a year. The two groups studied differed significantly with regard to quality of partnership at enrolment and the relationships of women who opted for abortion were of lower quality as measured by all parameters. Conflict behavior and affection scores were both different, showing a lower level of partnership quality in the study group. There was also less mutual trust between the partners in the study group.

At 1-year follow-up, there was a similar number of couples separated in both groups, in the study group the woman was the initiator for the separation in the majority of cases, as compared with the control group. In the case of almost half of the relationships that ended in separation after 1 year, the women admitted to pre-existing relationship problems before termination and stated that the termination did not influence their decision to separate.

In our study, 1 of 5 couples separated after TOP; nevertheless, none of the women who separated experienced a negative outcome due to TOP. Women who had negative consequences following TOP appeared to have difficulties in re-establishing sexual relationships, whether they were married or not.

In conclusion, this study adds new insight into a prospective evaluation of the effects of TOP on the sexuality of women 6 months after termination. It lends support to the hypothesis that negative emotions such as stress, anxiety and, more rarely, depression or PTSD could explain the appearance of sexual dysfunction reported after TOP.

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