

## INFORMATION TO USERS

This reproduction was made from a copy of a manuscript sent to us for publication and microfilming. While the most advanced technology has been used to photograph and reproduce this manuscript, the quality of the reproduction is heavily dependent upon the quality of the material submitted. Pages in any manuscript may have indistinct print. In all cases the best available copy has been filmed.

The following explanation of techniques is provided to help clarify notations which may appear on this reproduction.

1. Manuscripts may not always be complete. When it is not possible to obtain missing pages, a note appears to indicate this.
2. When copyrighted materials are removed from the manuscript, a note appears to indicate this.
3. Oversize materials (maps, drawings, and charts) are photographed by sectioning the original, beginning at the upper left hand corner and continuing from left to right in equal sections with small overlaps. Each oversize page is also filmed as one exposure and is available, for an additional charge, as a standard 35mm slide or in black and white paper format.\*
4. Most photographs reproduce acceptably on positive microfilm or microfiche but lack clarity on xerographic copies made from the microfilm. For an additional charge, all photographs are available in black and white standard 35mm slide format.\*

\*For more information about black and white slides or enlarged paper reproductions, please contact the Dissertations Customer Services Department.

**U·M·I** Dissertation  
Information Service

University Microfilms International  
A Bell & Howell Information Company  
300 N. Zeeb Road, Ann Arbor, Michigan 48106



8613833

Rogers, Richard Ralph, Jr.

INDIVIDUAL ADJUSTMENT, COUPLE CORRESPONDENCE ON ADJUSTMENT  
AND TYPE OF PENILE IMPLANT RECEIVED AS CORRELATES OF SEXUAL  
AND IMPLANT SATISFACTION

*The University of Arizona*

PH.D. 1986

University  
Microfilms  
International 300 N. Zeeb Road, Ann Arbor, MI 48106



**PLEASE NOTE:**

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark .

1. Glossy photographs or pages \_\_\_\_\_
2. Colored illustrations, paper or print \_\_\_\_\_
3. Photographs with dark background \_\_\_\_\_
4. Illustrations are poor copy \_\_\_\_\_
5. Pages with black marks, not original copy \_\_\_\_\_
6. Print shows through as there is text on both sides of page \_\_\_\_\_
7. Indistinct, broken or small print on several pages
8. Print exceeds margin requirements \_\_\_\_\_
9. Tightly bound copy with print lost in spine \_\_\_\_\_
10. Computer printout pages with indistinct print \_\_\_\_\_
11. Page(s) \_\_\_\_\_ lacking when material received, and not available from school or author.
12. Page(s) \_\_\_\_\_ seem to be missing in numbering only as text follows.
13. Two pages numbered \_\_\_\_\_. Text follows.
14. Curling and wrinkled pages \_\_\_\_\_
15. Dissertation contains pages with print at a slant, filmed as received \_\_\_\_\_
16. Other \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

University  
Microfilms  
International



INDIVIDUAL ADJUSTMENT, COUPLE CORRESPONDENCE ON  
ADJUSTMENT AND TYPE OF PENILE IMPLANT RECEIVED  
AS CORRELATES OF SEXUAL AND IMPLANT SATISFACTION

by

Richard Ralph Rogers Jr.

---

A Dissertation Submitted to the Faculty of the  
DEPARTMENT OF COUNSELING AND GUIDANCE

In Partial Fulfillment of the Requirements  
For the Degree of

DOCTOR OF PHILOSOPHY

In the Graduate College

THE UNIVERSITY OF ARIZONA

1 9 8 6

THE UNIVERSITY OF ARIZONA  
GRADUATE COLLEGE

As members of the Final Examination Committee, we certify that we have read the dissertation prepared by Richard Ralph Rogers Jr.

entitled INDIVIDUAL ADJUSTMENT, COUPLE CORRESPONDENCE ON ADJUSTMENT  
AND TYPE OF PENILE IMPLANT RECEIVED AS CORRELATES OF  
SEXUAL AND IMPLANT SATISFACTION

and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of DOCTOR OF PHILOSOPHY.

A. Christensen 12-9-85  
Date

Roger J. Daldry 12-9-85  
Date

A. Christensen 12/9/85  
Date

L. Eubank 12/9/85  
Date

Reed Munk 12/7/85  
Date

Final approval and acceptance of this dissertation is contingent upon the candidate's submission of the final copy of the dissertation to the Graduate College.

I hereby certify that I have read this dissertation prepared under my direction and recommend that it be accepted as fulfilling the dissertation requirement.

A. Christensen 12-9-85  
Dissertation Director Date

STATEMENT BY AUTHOR

This dissertation has been submitted in partial fulfillment of requirements for an advanced degree at The University of Arizona and is deposited in the University Library to be made available to borrowers under rules of the Library.

Brief quotations from this dissertation are allowable without special permission, provided that accurate acknowledgment of source is made. Requests for permission for extended quotation from or reproduction of this manuscript in whole or in part may be granted by the head of the major department or the Dean of the Graduate College when in his or her judgment the proposed use of the material is in the interests of scholarship. In all other instances, however, permission must be obtained from the author.

SIGNED:

Richard Ralph Rogers Jr.

## ACKNOWLEDGMENTS

There are many people to whom I am grateful for their assistance and support as I proceeded through the many facets of this research project. I am immensely appreciative of the continuous encouragement, support and constructive feedback that I received from Harley Christiansen, especially at those times when I felt discouraged and stuck. I could not have asked for a more helpful major professor. To Larry Beutler, I am quite grateful for his direction and education of how to do and enjoy research. In addition, I have appreciated his thought-provoking questions and feedback throughout these investigations. I am very grateful to the remainder of my committee, Oscar Christensen, Roger Daldrup and Reed Mencke, for their high-quality ideas and support plus their helpful feedback.

I am indebted to and respectful of the 49 couples that so graciously shared very intimate aspects of their lives with me in order to help future implant couples. To Clyde Feldman, my statistical consultant, I am thankful for his assistance in consultation and education regarding the reduction and analysis of these data. To Erika Louie, I am grateful for her high quality expertise and word processing of this final manuscript.

To my compatriots, Mark Thompson, Mary Fox, and Mary Gendron--I could not have completed this dissertation without your friendship, great ideas and quality feedback. To you three I say, Yahoo, I did it! To my wife, Mary Beth, I am ever so thankful for your love, patience, typing and pushing. You have nearly as much blood, sweat and tears in this project as I have. We did it! To my daughters, Alicia and Erica, thanks for being understanding and patient while I was absorbed in my research. I can now be your Dad once again!

## TABLE OF CONTENTS

	Page
LIST OF TABLES.....	vii
ABSTRACT.....	ix
CHAPTER	
1. INTRODUCTION.....	1
Purpose of the Study.....	7
2. REVIEW OF THE LITERATURE.....	8
Impotence.....	8
Causes of Impotence.....	9
Impact of Impotence.....	16
Treatment of Impotence.....	17
Relationship Satisfaction and Couple Correspondence.....	23
Relationship Satisfaction.....	24
Marital Satisfaction.....	24
Sexual Factors in Marital Satisfaction.....	27
Sexual Satisfaction.....	30
Couple Correspondence.....	33
Surgical Treatment of Impotence.....	41
Efficacy of Surgical Implantation.....	42
Postsurgical Adjustment of Implant Patient and Partner.....	50
Psychological Adjustment.....	52
Marital Adjustment.....	55
Sexual Adjustment.....	56
Implant Satisfaction.....	60
Sexual Satisfaction.....	63
Summary of the Literature.....	68
Statement of the Problem and Hypotheses....	70
Problems.....	70
Hypotheses.....	72
Definition of Terms.....	74
3. RESEARCH DESIGN AND PROCEDURES.....	77

TABLE OF CONTENTS -- Continued

	Page
Selection of Subjects and Sampling	
Procedures.....	77
Sampling Procedures.....	79
Method of Measurement and Data Collection..	79
Instruments.....	80
Data Collection.....	85
Research Design and Data Analysis.....	86
Research Design.....	87
Independent and Dependent Variables....	87
Analysis of Data.....	91
Limitations of this Study.....	92
4. RESULTS.....	93
Preliminary Analysis.....	94
Results and Additional Findings.....	106
Hypothesis 1.....	107
Hypothesis 2.....	117
Additional Findings.....	123
5. DISCUSSION AND CONCLUSIONS.....	127
Discussion.....	128
Sexual Satisfaction.....	128
Implant Satisfaction.....	135
Couple Correspondence.....	139
Hypotheses.....	141
Implications of the Findings.....	144
Suggestions for Further Research.....	146
Summary.....	148
APPENDIX A: DEROGATIS SEXUAL FUNCTIONING INVENTORY....	150
APPENDIX B: ARIZONA QUESTIONNAIRES.....	160
APPENDIX C: BAYLOR QUESTIONNAIRES.....	165
APPENDIX D: DEMOGRAPHIC CHARACTERISTICS OF SAMPLE.....	177
REFERENCES.....	180

LIST OF TABLES

Table	Page
1. Variables.....	89
2. Intercorrelations of predictor variables.....	97
3. Intercorrelations of dependent variables.....	102
4. Mean of the intercorrelations for dependent variables.....	104
5. Intercorrelations of predictor and dependent variables.....	108
6. Results of the stepwise multiple regression analysis predicting patient's sexual satisfaction from individual adjustment.....	111
7. Results of the stepwise multiple regression analysis predicting patient's sexual satisfaction from type of implant.....	112
8. Results of the stepwise multiple regression analysis predicting patient's implant satisfaction from type of implant, couple correspondence, and individual adjustment.....	114
9. Results of the post hoc stepwise multiple regression analysis predicting patient's sexual satisfaction from type of implant, couple correspondence, and individual adjustment.....	115
10. Results of the stepwise multiple regression analysis predicting partner's implant satisfaction from individual adjustment.....	119
11. Results of the stepwise multiple regression analysis predicting partner's implant and sexual satisfaction from type of implant.....	120

LIST OF TABLES--Continued

Table	Page
12. Results of the stepwise multiple regression analysis predicting partner's implant and sexual satisfaction from type of implant, couple correspondence, and individual adjustment.....	122
13. Frequency distribution of couple correspondence on their psychological and sexual adjustment.....	124

## ABSTRACT

This study was an ex post facto analysis of data gathered on 49 couples in which the men were organically impotent and subsequently received either an inflatable (n = 34), noninflatable penile prosthesis (n = 11) or both, in succession (n = 4). One purpose of this study was to examine the degree of correspondence for the patient and partner on their postsurgical psychological and sexual adjustment. The second purpose was to assess the relative contribution of each individual's psychological and sexual adjustment, couple correspondence on their adjustment, and the type of implant received on the patient's and partner's implant and sexual satisfaction. It was hypothesized that the patient's and partner's implant and sexual satisfaction would be more strongly related to couple correspondence on adjustment than to individual adjustment or to type of implant received. The instruments utilized were the Derogatis Sexual Functioning Inventory and two nonstandardized questionnaires. Thirty-five couples completed all three instruments. The statistical analysis of the data via stepwise multiple regression procedures found that the hypotheses were not supported. Instead, it was found that

type of implant contributed more to the patient's and partner's implant and sexual satisfaction than did couple correspondence or individual adjustment. Furthermore, couple correspondence on sexual drive was found to additionally contribute to patient's implant satisfaction, and correspondence on sexual drive and sexual attitudes were found to additionally contribute to patient's sexual satisfaction. Additional findings included that these couples were more similar on their sexual experience and sexual drive than they were on their sexual knowledge, sexual attitudes or psychological symptoms. It appears that recipients of the inflatable implant and their partners experience more implant and sexual satisfaction than do the recipients of noninflatable implants and their partners. These men tend to differ from their partners such that these patients, unlike their partners, have couple correspondence making an additional contribution to their implant and sexual satisfaction above and beyond type of implant received.

## CHAPTER 1

### INTRODUCTION

People are less in the dark today about human sexuality than they were three decades ago thanks to the Kinsey reports (Kinsey, Pomeroy & Martin, 1948; Kinsey, Pomeroy, Martin & Gebhard, 1953), the work of Masters and Johnson (1966, 1977) and subsequent sex researchers. As a result, more is known about the causes of sexual dysfunction and how to enable people to more fully enjoy their sexual potential. Despite this knowledge, more than ten million American men and their partners will experience sexual dissatisfaction during their lifetime due to "the agony, frustration and humiliation of impotence" (p. 86, Clark & Gosnell, 1984).

In Latin, "impotence" means without power, and that is just how many men experience themselves, along with usually feeling depressed, experiencing a loss of self-esteem, and feeling less of a man (Taine, 1979). Their partners commonly wonder "what's wrong with me?", and meanwhile the marital and sexual lives of such couples usually take a turn for the worse (Kaplan, 1974).

Impotence can be created by any one of a number of psychogenic and/or organic factors, and yet what typically occurs is that there can be an interplay of multiple factors resulting in the man's erectile dysfunction (Taine, 1979). Initially, it was thought that a man's impotence was caused by either psychogenic or organic factors, and that the causes were mutually exclusive. More recently, the view is that both psychogenic and organic factors can simultaneously contribute to the man's erectile dysfunction. In turn, what needs to be assessed is the relative contribution of each of the various factors present in the impotent male. Psychological conditions, such as anxiety, depression and marital discord, may be the main factors contributing to the creation of impotence. And until recently this was thought to be true in 90% of impotent men (Stafford-Clark, 1954). Or medical conditions, such as diabetes, vascular disease or spinal cord injury, may be the main factors contributing to the man's erectile dysfunction. More recent studies estimate that such organic factors are predominantly responsible for the cause of impotence in at least 15% and possibly up to 60% of the cases (Masters & Johnson, 1970; Karacan et al., 1978; Montague, James, DeWolfe & Martin, 1979; Spark, White & Connolly, 1980; Clark & Gosnell, 1984). What tends to occur in the organically impotent male is that he can tend to exacerbate his condition by his psychological

reaction to his impotence. Impotence is the final common pathway for men who have experienced any one or a combination of psychogenic and/or organic factors within their lifetime.

In this paper, psychogenic impotence will refer to the condition where the psychological and/or marital factors are the main factors contributing to the erectile dysfunction. It is assumed that organic factors may exist, but they exert a lesser effect. Similarly, organic impotence will refer to the situation where medical factors predominate in the cause of impotence, with any psychogenic factors that may be present contributing to a lesser degree.

The relative contribution of each of the various psychogenic and organic factors needs to be assessed so the proper treatment can be prescribed. If psychogenic factors predominate then the treatment of men with psychogenic impotence has typically been either individual therapy from a psychodynamic or behavioral orientation or couples therapy based on Masters and Johnson's (1970) and Kaplan's (1974) work. If organic factors predominate then such impotence can usually be treated by alteration of medications, injection of testosterone, or surgical implantation of a penile prosthesis.

More than 32,000 men within the U.S. have had their sexual potency restored as a result of their having surgery

to implant a penile prosthesis (American Medical Systems, 1982; Kaufman, Boxer, Boxer & Quinn, 1981). As early as 1936, Borgoras (1936) created a penile prosthesis out of a section of rib cartilage to surgically overcome organic impotence. Within the last two decades two main kinds of silicone penile prostheses have been created and improved upon. One major subtype of prosthesis is the rigid or semi-rigid silicone rods, such as those introduced by Pearman (1967), Finney (1977), Small, Carrion and Gordon (1975) and Jonas (Krane, Freeberg & Siroky, 1981). The other major subtype is the inflatable penile prosthesis (IPP) made of silicone cylinders which was introduced by Scott, Bradley and Timm (1973). The choice as to which type of prosthesis to have implanted depends upon the surgeon's expertise, and the man's degree of physical activity, age, medical cause of impotence, financial ability and personal preference (Smith, Lange & Fraley, 1979; Malloy, Wein & Carpinello, 1980).

Extensive research has been conducted on the recipients of such prostheses to ascertain the surgical success rates with outstanding results for both the semirigid and IPP types (Malloy et al., 1979; Sotile, 1979). Sotile (1979) comments on what seems to be missing in the literature on the effects of the prosthesis on the man and his partner "are reports of the systematic assessment of

such subjective aspects of outcome as degree of patient and partner satisfaction with the effects of the procedure on both sexual and nonsexual aspects of their relationships" (p. 30).

The effects of these prostheses on the psychological, sexual and marital well-being of these men and their partners is just beginning to be explored. Initially, reports included examples in the extreme--either the prosthesis resulted in extreme disruption or exceptional satisfaction to the implant couple. Kramarsky-Binkhorst (1978) reported that many of the 31 female partners she had interviewed had multiple pre- and postoperative fears and complaints regarding sex with their male partners who had received the Small-Carrion prosthesis. Only 42% of these women reported total satisfaction with the implant. Kramarsky-Binkhorst also interviewed 29 implant recipients who refused to have their partners in her study and some of these men reported withholding knowledge of their surgery from their spouses while claiming multiple extramarital affairs. In another study (Smith et al., 1979), two implant recipients were markedly depressed postsurgically, both had attempted suicide and one patient was refusing to inflate his IPP. It has been reported that one patient's partner refused to have intercourse after implantation (Gee, McRoberts, Raney & Ansell, 1974), while another patient's

partner separated from her husband because of the implant three days after he returned home from the hospital (Stewart & Gerson, 1976).

On the more positive side, Beutler (1979) reported that one of the female partners he interviewed claimed that thanks to the IPP she could now have multiple orgasms for the first time in her life. Some of the partners in Finney's (1977) study claimed that their husbands performed better sexually after receiving the prosthesis than they had before the onset of their impotence.

More recently, investigations have begun to more systematically evaluate the impact of prosthesis on the patients and the partners' psychological adjustment and the couples' sexual and marital adjustment (Kaufman, Boxer, Boxer & Quinn, 1981; Schlamowitz, Beutler, Scott, Karacan & Ware, 1983; Beutler, Scott, Karacan, Baer, Rogers & Morris, 1984; Beutler, Scott, Rogers, Karacan, Baer & Gaines, 1986). There is still a great need for further research on the impact of prostheses on the implant couples' postsurgical psychological, sexual and marital adjustment. Little is known about the level of agreement between the patient and the partner on their postsurgical psychological, sexual and marital adjustment. And it is not known what factors contribute to these couples' postsurgical sexual satisfaction.

### Purpose of the Study

There were several purposes to this study. One purpose was to examine the degree of similarity (also referred to as couple correspondence) between the perceptions of the implant patient and his sexual partner on their postsurgical psychological and sexual adjustment. The second purpose was to assess the relative contribution of each individual's psychological and sexual adjustment, correspondence on the couple's psychological and sexual adjustment and the type of implant received on the implant patient's sexual satisfaction and satisfaction with the implant. The final purpose was to determine the relative contribution of each individual's psychological and sexual adjustment, correspondence on the couple's psychological and sexual adjustment and type of implant received on the sexual partner's sexual satisfaction and satisfaction with the implant. It was hypothesized that sexual satisfaction and satisfaction with the implant of the patient and partner is more strongly related to how closely the implant patient and his sexual partner correspond in their psychological and sexual adjustment, than it is to the individual adjustment of either partner or to the type of implant received.

## CHAPTER 2

### REVIEW OF LITERATURE

The purpose of this study involves three themes: impotence; couple correspondence on sexual and implant satisfaction; and the impact of surgical treatment on the implant couple. The following review of literature is divided into three main sections based on these themes. The first section focuses on the possible causes of impotence, its impact on the man, his partner and their relationship, and its treatment. The second section consists of a review of the literature on sexual and marital satisfaction, especially in regards to couple correspondence on their relationship satisfaction. The final section is a review of the research on the surgical treatment of impotence, with special emphasis on the impact of the prosthesis on the psychological, marital and sexual adjustment of the implant patient and his partner.

#### Impotence

Impotence is the inability of a man to achieve or sustain an erection suitable for vaginal penetration and sexual intercourse (Furrow, 1983). There are two types of

erectile dysfunction: primary and secondary. Primary impotence is the rare condition where the man has never been able to achieve an erection and successfully engage in intercourse. Secondary impotence is the more common dysfunction in which the man who was once able to achieve an erection and engage in intercourse has presently lost his ability to achieve an erection suitable for vaginal penetration. Kaplan (1974) states that it is a normal occurrence within approximately half the adult male population to experience "occasional transient episodes of impotence" (p. 255). Teenagers through septuagenarians can experience erectile dysfunction, although the older the man gets the more likely he is to experience such problems (Kinsey et al., 1948).

#### Causes of Impotence

Psychological Factors. There are multiple psychological and medical factors that can contribute to erectile dysfunction. The main psychological factors include learned fears, interpersonal conflict, emotional problems and a psychosomatic reaction. Anxiety and learned fears can cause impotence. As a child, the impotent man may have learned to fear expression of his sexuality. Masters and Johnson (1970) recognized within the impotent men they treated the common fears of inadequacy and sexual failure.

Destructive interpersonal interactions between a man and a woman can create impotence according to Kaplan (1974).

She describes one common interactional pattern which can lead to impotence as the classic example of the "castrating" woman and the passive male. Destructive communication patterns, where one or both of the partners is punitive towards and/or rejecting of their partner, can result in severe partner alienation and deterioration of the relationship, both in and out of the bed (Wagner & Green, 1981).

Emotional experiences such as guilt, anger, anxiety, fear, and depression can all interfere with a man's sexual potency. Such feelings can inhibit a man from being able to abandon himself to his sexual feelings and fully enjoy a sexual experience. Both depression and anxiety can cause impotence as well as being a common emotional reaction the man may experience in response to the onset of his erectile dysfunction, with both psychogenic and organic impotence.

Kaplan (1974) describes how psychosomatic factors can cause impotence from the diathesis-stress paradigm. Impotence may occur as a reaction to stress. This can happen in one of two ways. The impotent man may have an organic vulnerability to stress such that there is a failure of the physiological mechanisms involved in erection in response to stress. The other possibility is that he may have a vulnerability to emotional arousal, which means that when he is emotionally excited he may respond with anxiety, and this may interfere with his erectile ability.

Levine (1976) recognized that there can be both intrapsychic and interpersonal factors present in the cause of impotency. Both Masters and Johnson (1970) and Kaplan (1974) report assessing the relative contribution of the various psychogenic factors and then utilize interventions from different models in the development of their treatment plan for the impotent man and his partner.

Medical Factors. The physiological process of achieving an erection is due to the complex interaction of hormonal, vascular and neurological mechanisms. It is no surprise then that erectile dysfunction can be caused by any one or a combination of a number of medical conditions or treatments. Kaplan (1974) cites six general medical conditions that can cause erectile dysfunction: systemic diseases, endocrine disorders, local genital disease, surgical conditions, neurologic disorders and vascular disease. Systemic diseases that can create impotence include heart disease, chronic renal failure, chronic lung disease, and malignancies. Men with any of these systemic diseases have a greater likelihood of becoming impotent than the average healthy male (Wagner & Green, 1981).

Diabetes and hormonal imbalances are the most common endocrine disorders that can impair erectile functioning. Between 27 and 59% of all diabetic males can experience erectile dysfunction due to the degenerative effect of the

disease on the nerves and small blood vessels involved in erection (Schiavi & Hogan, 1979; Jensen, 1981). While it is uncertain as to the definite role the hormone testosterone plays in the male's erectile process, it has been known to be present in very low levels in impotent men (Spark et al., 1980; Segraves, Schoenberg & Ivanoff, 1983). Testosterone replacement as treatment for impotence restores potency in some of these men, while it is ineffective in others (Clark & Gosnell, 1984).

Peyronie's disease and priapism are two local genital diseases that can cause impotence. Peyronie's disease is a condition where there is an uneven buildup of plaque within the dorsum of the penis, resulting in a deformity and curvature of the erect penis and making intercourse quite difficult. Priapism is a rare condition that is an involuntary, long-standing, painful erection, which left untreated can result in impotence.

Radical pelvic surgeries to remove tumors such as prostatectomy, ileostomy and colostomy can often lead to the severing of key nerves involved in erection and render the patient impotent. The nerves involved in erection can also be negatively affected by such conditions as spinal cord injury and multiple sclerosis.

Any vascular abnormality which might restrict circulation to the genital area can cause erectile dysfunction.

Approximately 25% of all impotence is due to arteriosclerosis, and 40-50% of all men with peripheral arterial disease had complaints of erectile dysfunction (Wagner & Green, 1981). In addition, certain medications designed to treat hypertension and heart disease in fact cause impotence. Such drugs may lower blood pressure in the penis or affect the nerves or hormones involved in an erection.

Frequent use and abuse of alcohol or narcotics can lead to erectile dysfunction. Alcohol, being a central nervous system depressant, can eventually cause damage to the nerves involved in erection. It is a common belief that alcoholics become impotent, yet studies which systematically investigate the incidence levels of impotence in alcoholics vary from 8-80% (Wagner & Green, 1981; Bancroft, 1983; Clark & Gosnell, 1984).

In summary, there are a multitude of possible psychological and medical factors that can cause erectile dysfunction. It is usually not a question of which one factor caused the impotence, but rather what psychological and medical factors are involved and what is the relative contribution of each factor to the creation and maintenance of the man's erectile dysfunction. Successful treatment depends on such assessment.

Assessment of Impotence. Beutler and Gleason (1981) describe a multidisciplinary team approach to the screening

and diagnosis of impotence. A urologist, psychiatrist, psychologist and sleep lab personnel all work together to assess the relative contribution of the physical, psychological and marital factors present in such a sexual dysfunction and to differentiate organic from psychogenic impotence. The typical evaluation process would consist of: medical history; sex history; physical exam (including neurological); laboratory studies (e.g., blood sugar levels, serum testosterone levels, penile blood pressure, nocturnal penile tumescence); psychological testing (e.g., MMPI, Derogatis Sexual Functioning Inventory); and psychiatric evaluation.

Monitoring nocturnal penile tumescence (NPT) is one of the single most effective processes for differentiating between organic and psychogenic impotence (Karacan, Williams & Thornby, 1975; Fisher, Schiavi, Lear, Edwards, Davis & Witkin, 1975). The procedure is conducted either in a sleep lab or at home. The process consists of attaching an electronic device to the penis during the night. During his sleep, the normal male will experience two to five erections which may last from five to thirty minutes. Typically, the man with psychogenic impotence will continue to have nocturnal erections even though his daytime erectile ability is impaired. In contrast, the organically impotent male will exhibit impaired nocturnal penile tumescence, which

will correspond closely to his impaired waking performance (Fisher et al., 1975; Karacan et al., 1975).

Initially, there was support for the idea that the MMPI was capable of discriminating between organic and psychogenic impotence (Beutler et al., 1975; Beutler, Scott & Karacan, 1976). Subsequent studies have yielded mixed results on the MMPI's ability to determine the etiology of impotence (Marshall, SurrIDGE & Delva, 1980; Robiner, Godec, Cass & Meyer, 1982; Baer, Karacan & Charlesworth, in press). The MMPI is used regularly to assess the impotent male's presurgical psychological adjustment and to help screen out patients who might be at risk to suffer adverse emotional reactions to surgical implantation (Osborne, 1976; Robiner et al., 1982).

Osborne (1976) describes the essential components of the interview that the urologist and/or psychiatrist will conduct with the patient and his partner to evaluate the patient for surgical implantation:

1. Identify the medical, psychological and/or marital factors that have caused and maintained erectile dysfunction.
2. Identify patients for whom nonsurgical treatment might be appropriate.
3. Evaluate patient's and partner's motivation for surgery.
4. Identify patients in whom surgery might precipitate emotional problems.

5. Prepare patient and partner for postsurgical adjustment (p. 364).

The result of this thorough screening usually consists of an accurate diagnosis upon which the treatment of choice can be based.

#### Impact of Impotence

By the time the impotent male has decided to seek treatment, his erectile dysfunction has typically had a negative impact on his and his partner's psychological well-being and on their marital relations, regardless of the etiology (Taine, 1979; Beaser et al., 1982). In most cultures and socioeconomic groups, men invest a great portion of their self-esteem in their ability to achieve an erection. Impotent men commonly hold the irrational belief, "If I can't get it up, I'm not a man" (Taine, 1979). It is no surprise that an impotent man may feel depressed, incompetent and devastated and attempt to cope by avoiding physical intimacy with his partner without explaining to her why (Schoenberg, Zarins & Segraves, 1982).

The partner may feel rejected, hurt, angry, confused and just like their impotent mate, she may experience a loss of self-esteem (Kaplan, 1974; Taine, 1979). Common misconceptions that the wives have of the situation include: he doesn't love me anymore and/or there must be another woman (Taine, 1979). The female partner may cope with her urgent

need for reassurance by pressuring her impotent mate into performing sexually, which only serves to worsen the situation (Kaplan, 1974).

Schoenberg and associates (1982) reported that stable couples tend to weather the crisis of the man's impotence effectively and either resolve the situation themselves or seek appropriate professional assistance. In contrast, less stable couples may withdraw from each other and further damage their already weak relationship. In one study, only 24% of the partners of impotent men believed that the impotence did not result in interpersonal difficulties (Beaser et al., 1982). Of the remaining 76%, 44% of the partners believed the impotence caused minor interpersonal difficulties and 32% believed it caused major difficulties. Erectile dysfunction can have devastating effects not only on the man, but also on his partner and their marital and sexual relations.

#### Treatment of Impotence

Psychological Treatment. The purpose of treatment for erectile dysfunction is to restore the sexual potency of the male and to enable him and his sexual partner to have satisfying sexual relations. Potentially, this goal can be realized through either psychological or medical treatment of impotence. There is a variety of therapies that have been utilized to treat impotence, including: psychodynamic,

behavioral (e.g., systematic desensitization, biofeedback, assertion training, relaxation), cognitive, hypnosis, reeducative and supportive therapy, experiential psychotherapy (Kilmann & Auerbach, 1979; Beutler & Gleason, 1981) and extensive retraining programs such as Masters and Johnson's (1970) program that would include couple exercises such as sensate focus.

The efficacy of therapy for erectile dysfunction is contingent upon such nonspecific factors as type (primary vs. secondary) and duration of impotence and degree of cooperation and support from partner, along with the form of treatment chosen. Masters and Johnson (1970) and Kaplan (1974) both report higher success rates in treating men with secondary rather than primary impotence. The longer the duration of the erectile dysfunction, the poorer the outcome (Ansari, 1976; Levine & Agle, 1978). The more supportive, cooperative and loving the sexual partner is, the more likely the male will have a successful recovery (Kaplan, 1974; Levine & Agle, 1978).

Early studies tend to report high failure rates in treating secondary impotence, such that 58-66% of the men experienced no improvement in their erectile ability (Johnson, 1965; Cooper, 1968). Johnson (1965) applied a traditional form of therapy to achieve a 17% total cure rate and to get another 17% reporting improved erectile ability.

Cooper (1968) applied a combination of relaxation, sex education and psychotherapy. Of those men with acute onset of their impotence, 90% reported improvement whereas of those men with an insidious onset, only 25% reported improvement.

Beginning with Masters and Johnson's studies (1970), the failure rates have declined. Between 67% and 75% of the secondary impotent men receiving treatment reported at least less frequent erectile dysfunction, if not full restoration of their erectile ability following psychological intervention (Friedman & Lipsedge, 1971; Levine & Agle, 1978; Reynolds, 1980).

There is some evidence to support the idea that systematic desensitization is more effective than either relaxation alone (Auerbach & Kilmann, 1977), or psychoanalytically oriented group therapy (Obler, 1973) and is equally as effective as the "routine" medication and standard advice (Kockott, Dittman & Nusselt, 1975) in the treatment of impotence.

The efficacy of biofeedback, especially the value of erectile feedback, is still unclear. Csillag (1976) reported that three of his six subjects achieved improvement in erectile ability sufficient to engage in intercourse. Reynolds (1980) compared erectile biofeedback to two other forms of treatment and found no difference between treatment groups, and yet 67% of the men within the three treatment

groups reported at least some improvement in their erectile ability.

Medical Treatment. Just as there are varieties of therapies to treat impotence, there are also varieties of medical treatments available to overcome organic impotence. The medical treatment which is chosen depends upon the assessment of the organic factors that are found to contribute to the erectile dysfunction. If a man is found to have an abnormality of his hypothalamic-pituitary-gonadal axis, then testosterone replacement may be the initial treatment of choice. If the impotent man is taking medications to treat hypertension or heart disease, and these medications are altering the delicate balance between the vascular, hormonal and neurological mechanisms involved in erection, then initial treatment would be to change to medications that would not be so likely to create erectile dysfunction.

There are medications available that claim to improve potency, such as drugs that increase blood flow to the penis. Injecting a solution into the impotent man can temporarily restore his erectile ability (Virag, Spencer & Frydman, 1984). There are even some nonprescribed pills that are advertised as capable of restoring erectile ability, such as Dr. Brian Richards' all-natural energy pill called "Charge-Up." Little is known about the efficacy

of treatment of impotence by medication, especially those which do not come under FDA scrutiny, such as the "Charge-Up" pill.

Surgical treatment of impotence consists of either implantation of a penile prosthesis, corrective surgery of the arterial supply to the penis, corrective surgery of drainage failures, and plastic surgery and reconstruction of the damaged or diseased penis (Wagner & Green, 1981; Araki, Ohmori, Ohashi, Shirai, Kawamura & Saito, 1984). Surgical implantation is the most common surgical procedure used to treat impotence. Implantation is recommended usually after other medical and sometimes psychological treatments have failed to restore potency (Wagner & Green, 1981). Usually it is used as a last resort because implantation of the prosthesis tends to permanently destroy tissue within the corpora cavernosa of the man's penis, resulting in very limited ability to ever again have a natural erection. Such procedures will be discussed at greater length later in this chapter.

Kaplan (1974) also recommends that the impotent male change his eating, drinking and smoking habits to decrease the likelihood of any of these factors contributing to his erectile dysfunction.

There has been some argument in favor of providing both sex therapy and medical treatment to the organically

impotent man and his partner (Divita & Olsson, 1975; Schiavi, 1980). For treatment of psychogenic impotence, Masters and Johnson (1970) utilized a team consisting of a physician and sex therapist to address the psychological, marital and physical factors that may create and maintain erectile dysfunction. Renshaw (1979) recommends holistic treatment such that the physician attends to both the physical and psychological needs of the impotent male and his partner.

Impotence is a complex sexual dysfunction. There is a variety of physical and psychological factors that can contribute to the creation and maintenance of a man's erectile failure. How these factors interplay to result in erectile dysfunction seems to be unique to the man and his partner. Since there are so many possible causes of impotence, there are in turn a multitude of medical and psychological treatments available. Holistic care of the impotent male and his sexual partner seems to be preferred and is becoming a more common practice.

From what is known about erectile dysfunction several factors emerge that are relevant to the objectives of this study. Especially relevant are those factors which may determine patient's and partner's sexual and implant satisfaction. This study is particularly concerned with assessing the determinants of patient and partner

psychological adjustment following surgery, since both the impotent male and his partner tend to suffer psychologically from impotence. This study was also designed to assess the relative contribution of the patient's and partner's individual psychological adjustment and the role of similarities in their psychological adjustment both to their sexual and implant satisfaction.

#### Relationship Satisfaction and Couple Correspondence

What is the difference between couples who are satisfied with their marriage and other couples who are quite unhappy? Not all couples experience sexual satisfaction, and it has been found that even happily married couples can experience a wide range of sexual difficulties (Frank, Anderson & Rubenstein, 1978). Studies surveying rates of sexual satisfaction for men range from 67% to 88% and for women range from 62% to 88% (Athanasίου, Shaver & Tavris, 1970; Levin & Levin, 1975; Frenken, 1976; Frank et al., 1978; Chester & Walker, 1979; Thorns & Collard, 1979). Why is it that many couples experience sexual satisfaction and some couples do not? Research indicates that the creation and maintenance of a couple's marital and sexual satisfaction seems to be related to a variety of background, intrapsychic and interpersonal factors (Barry, 1970; Kaplan, 1974). Included within this body of research are studies

which recognize certain factors in which the couple's level of similarity or agreement (correspondence) are related to their marital and sexual satisfaction.

This section will begin with a review of the research related to marital and sexual satisfaction for couples in general and then for couples that have experienced sexual dysfunction or surgical (other than implantation) treatment. It will conclude with a review of the research on couple correspondence on factors related to marital and sexual satisfaction.

#### Relationship Satisfaction

Marital Satisfaction. There are a number of factors which may contribute to a given couple's happiness with one another. These include similarities between the man and woman, relationship and sexual factors. Generally, the greater the stability of the man's personality, the happier the couple is found to be (Barry, 1970). Such factors as stability are not related to marital satisfaction among women. Renne (1970) reports that if either partner experiences a disturbance in their physical or emotional health, their relationship is likely to become dissatisfying.

Although men and women have a variety of physical and psychological differences, it seems that it is some of their similarities that helped to initially attract them to one another as well as to keep their relationship

satisfying. The greater the similarity in the couple's age, the happier the couple will be with each other (Hicks & Platt, 1970). Similarities in personalities also appear to be related to marital satisfaction. For example, Luckey (1960) found that there is a relationship between marital satisfaction and the congruence of perceptions of the ideal self and of the spouse. Barry (1970) observed that the more the wife comes to resemble her husband's personality, the greater their satisfaction. Burgess and Wallin (1953) characterized the happily married couple as being emotionally stable.

Value consensus among partners seems to contribute to their marital satisfaction. Coombs (1966) found that a person's satisfaction with his or her partner increases with an increase in the couple's objective value consensus. It has been suggested that assumed similarity of values may also contribute to marital satisfaction (Byrne & Blaylock, 1963; Levinger & Breedlove, 1966). Levinger and Breedlove (1966) found that assumed similarity of attitudes is more highly correlated with the husband's marital satisfaction than it is with the wives. Levinger and Breedlove also report their findings of assumed similarity of values to be even more highly correlated with marital satisfaction than actual similarity. Elliot (1960) found a positive correlation between marital satisfaction and agreement about

marital roles. Beutler (1971) found that improvement in marital therapy was related to attitudinal convergence among marital partners. It appears that assumed similarity of general values and agreement about marital roles both contribute to marital satisfaction.

Certain perceptions of the marital partner also are related to marital satisfaction. Luckey (1960), in her study of 454 married persons, found that there was a significant relationship between marital satisfaction and the congruence of perceptions of: the self and perceptions of the self by spouse; and the ideal self and spouse. Coombs (1966) found a significant relationship between relationship satisfaction and a spouse's perception of their partner's positive valuing of him or herself. According to Fields (1983), marital satisfaction is related to congruence of mates' perceptions, especially in regards to being able to accurately perceive their spouse. It appears that marital satisfaction is influenced by similarity between, plus accuracy and positiveness of partner's perceptions of one another.

There appear to be several relationship factors that contribute to marital satisfaction. The ease of communication with a partner is related to marital satisfaction (Coombs, 1966). Barry (1970) and Zimmer (1983) both report that satisfied couples are more effective at constructively

resolving conflict. Birchler and Webb (1977) report their findings that marital satisfaction appears to be related to the number of specified unresolved problems. It appears that the most satisfied couples can communicate well, along with effectively resolving any conflict.

Sexual Factors in Marital Satisfaction. Lederer and Jackson (1968) theorize that sexual dissatisfaction and dysfunction are symptoms of marital discord and not the cause of it. Fields (1983), along with Perlman and Abramson (1982) found that for both men and women, and Schover and von Eschenbach (1985) found that for men, marital satisfaction was significantly related to their sexual satisfaction.

In addition, it appears that other sexual factors are related to marital satisfaction and adjustment. Murstein (1974) found that the male's sex drive is negatively related to marital adjustment, whereas in women sex drive is positively related. Birchler and Webb (1977) found that frequency of intercourse was positively related to marital satisfaction. Wallin and Clark (1958) found that the husband's marital satisfaction was positively related to his perception of similarity to his marital partner in preferred frequency of coitus. The findings of the wives' marital satisfaction resulted in a similar pattern, just less reliably so. The husband's sex-role behavior was found to be related to the couple's marital adjustment, whereas

the wife's sex-role behavior was related to only the wife's marital adjustment (Murstein & Williams, 1983). Antill (1983) found that marital satisfaction was related to the degree to which both partners were high on femininity. Lederer and Jackson (1968) state that it is the individual's perception of their sexual relationship that is more closely related to marital satisfaction than the actual sexual encounter. In support of this, they cited a study conducted at an Ohio university where both happy and unhappy couples had the same frequency of intercourse, but the unhappy couples were more likely to misperceive and miscommunicate about their sexual satisfaction in comparison to the happy couples. Several sexual factors, such as sexual satisfaction, sex drive, frequency of intercourse, sex-role behaviors, and similarity in perceptions of the sexual relationship, appear to be related to a couple's marital satisfaction.

Marital satisfaction seems to entail a complex interaction of many individual, relationship, and sexual factors. The individual factors which have been which have been related to marital satisfaction, include husband's emotional stability, and the physical and/or emotional health of either partner. Age, value and personality similarity between the men and women all contribute to the couple's happiness. The relationship factors that have been

related to marital satisfaction include: having positive, accurate and similar perceptions of one's partner; and effectively communicating and resolving conflict. Not only is sexual satisfaction related to marital satisfaction, but so is the couple's sex drive, frequency of intercourse, sex-role behaviors and similarity in perceptions of their sexual relationship. Creating and maintaining marital happiness is no easy job, and it comes as no surprise when Lederer and Jackson (1968) say that both of the partners need to keep working on their relationship until the day they die.

There are several factors in the literature on marital satisfaction that appear to be relevant to both purposes of this study. Since marital satisfaction is significantly related to sexual satisfaction, and more is known about the former than the latter, it is logical to suggest that some of the psychological and sexual factors related to marital satisfaction may also be related to sexual satisfaction. Several questions can be raised. For example, one may wonder if similarities in the couple's personalities, values, perceptions and preferred frequency of coitus related to their sexual and implant satisfaction? Is there a relationship between either partner's sexual and implant satisfaction and their frequency of sexual activity or sexual drive? What is the level of couple correspondence

on such psychological and sexual adjustment factors? Such questions were addressed in this study.

Sexual Satisfaction. Lederer and Jackson (1968) have observed that there is no absolute standard by which a couple can measure their satisfaction with their sexual relationship as one might do with the performance on the hundred yard dash. What one couple might find satisfying in their sexual relationship, another couple may find undesirable and vice versa. "Sexual satisfaction" is a concept which describes each partner's perception of the degree of pleasure he or she experiences in their sexual relationship. Specific factors contributing to a couple's sexual satisfaction will now be reviewed.

Kaplan (1974), in her work with sexually dysfunctional couples, has observed a variety of factors that seem to relate to sexual satisfaction within a relationship. She observes that sexual satisfaction can be enhanced by making oneself more appealing to the sexual partner via exercise, diets, hairstyles, clothing and cosmetics. Kaplan (1974) has observed that effective, open communication between partners enhances sexual satisfaction. The more each partner is able to genuinely express, as well as actively listen to each other's feelings, especially in the area of intimacy and in sexual matters, the greater the couple's enjoyment of the sexual experience. She goes on to state

that the sexually satisfied couple is bound to have accurate knowledge about human sexuality.

Barbach and Levine (1981) report that women regard the emotional relationship as the most important element in a good sexual experience. Hence, if warmth, trust and affection are absent, emotional emptiness and eventually sexual dissatisfaction are bound to occur (Barbach, 1983).

Within the last half decade, there have been several studies which have investigated some of the factors that seem to contribute to a couple's sexual satisfaction or dissatisfaction. Sexual satisfaction appears to be related to certain personality, marital and sexual factors. Farley and Davis (1980) found that the women in their study experienced greatest sexual satisfaction when the man's personality was essentially identical to their own on dimensions of introversion-extroversion and neuroticism. In contrast, the men reported greatest sexual satisfaction when their partner was identical on the psychoticism scale. They concluded that a personality fit between partners contributes to sexual satisfaction, with women being more sensitive to personality than men.

Fields (1983) discovered that women's sexual satisfaction appears to be related to congruence of couple's perceptions. Nettlebladt and Uddenberg (1979) reported that

the couple's current emotional relationship was related to their being satisfied sexually.

Perlman and Abramson (1982) found several sexual factors which correlated with couple's sexual satisfaction. They found that the more frequently a couple engaged in sex, the greater their satisfaction sexually. In addition, they found the more pleasurable the couple evaluated the sex act, the greater their satisfaction with their sexual relationship.

In summary, through Kaplan's observations and sexual researchers' findings, it appears that there are multiple psychological, marital and sexual factors that can contribute to a couple's sexual satisfaction. Sexual satisfaction has been consistently related to certain psychological factors such as personality traits and congruence of perceptions between partners. The marital factors that seem to be related to sexual satisfaction include the couple's: current emotional relationship and ability to communicate. Sexual satisfaction seems to be related to the sexual factors of frequency of sexual activity, accuracy of sexual knowledge, and making oneself appealing to the partner.

Within this body of knowledge, there are multiple factors that seem pertinent to the purposes of this study. The psychological factors that were addressed in this study

included the similarities between the patient and his partner in estimates of postsurgical psychological adjustment. In addition, the relative contribution of each partner's psychological adjustment and their correspondence on their psychological adjustment to each partner's sexual and implant satisfaction was explored. The sexual factors which may be related to sexual and implant satisfaction include sexual frequency and accuracy of sexual knowledge. The relative contribution of each individual and the couple's correspondence on these sexual factors to sexual and implant satisfaction were also investigated in this study.

Couple Correspondence. Men and women are both similar and yet different in their physical, psychological and sexual existence. Correspondence is a process of assessing the level of agreement or degree of similarity among the partners of a couple. Thompson and Walker (1982), in their theoretical paper on how to conduct research on couples, suggest this procedure of investigating correspondence as a means of measuring the agreement or similarity within a couple to understand their relationship in terms of one partner in relation to another. In assessing correspondence, it has already been mentioned that researchers have found that marital satisfaction seems to be related to the couple's background, value, personality, and behavioral similarity (Burgess & Wallin, 1953; Luckey, 1960; Elliot,

1960; Byrne & Blaylock, 1963; Coombs, 1966; Levinger & Breedlove, 1966; Barry, 1970; Hicks & Platt, 1970; Beutler, 1971). Bancroft (1983) observes normative changes have been occurring in sexual patterns across time:

There is convincing evidence that over the past two decades there has been a convergence between male and female sexuality; as shown in the onset and frequency of premarital sexuality and masturbation, patterns of marital sex, and interest in, and response to erotica. In most respects, this has meant women becoming more like men, but in some respects it may be the other way around, or at least convergence by both towards some middle ground (p. 150).

Research on correspondence of couples' relationships tends to be mainly descriptive, with some additional correlational studies. In the following paragraphs, what will be reviewed first are studies that have measured couples' level of agreement on various marital and sexual relationship factors, including satisfaction. Then studies that have evaluated couple's correspondence after one or both partners have received some form of treatment (e.g., sex, marital, medical) will be reviewed.

Not only has correspondence been measured as far as a set of factors which may be related to marital satisfaction, couple correspondence has also been implicated as contributors to particular behaviors occurring at home and to the perception of certain aspects of a couple's relationship. Several studies investigated the degree of interspouse consensus on the occurrence or nonoccurrence of

behaviors in the home (Christensen, Sullaway & King, 1983; Jacobson & Moore, 1981; Elwood & Jacobson, 1982). In two of the studies it was found that spouses agreed on the occurrence of the targeted behaviors only about 50% of the time (Christensen et al., 1983; Jacobson & Moore, 1981). Jacobson and Moore's (1981) results show that distressed couples tend to disagree more and are less accurate than nondistressed couples. Elwood and Jacobson's (1982) findings on their ten distressed couples were that such couples agreed the most on their behaviors of affection (61.2%) and sex (57.7%) and agreed the least on their behaviors of communication (25.6%), consideration (31.5%) and companionship (35.1%).

Baider and Sarrell (1984) investigated the partners' level of agreement on their marital relationship and on perception of illness. Subjects were 25 couples where one partner had cancer. Both partners were asked the same questions about their marital and sexual relationships and their perception of the illness situation. Their level of agreement was then computed, and the results were expressed as percent of agreement:

Relationship Aspects

1. Cooperation = 52%
2. Couple decision-making = 28%
3. Patient's help in household = 40%

4. Sharing of feelings = 64%
5. Conflicts between patient and spouse = 40%
6. Couple agreement (consensus or solidarity)  
= 80%
7. Communication about illness = 64%
8. Sexual satisfaction = 48%

#### Perception of Illness

1. Awareness of diagnosis of cancer = 32%
2. Who can help = 0% (p. 119)

Agreement was greatest on the couples' perceptions of their solidarity and their communication, including communication about the patient's illness. These couples tended to disagree the most on their perceptions of decision-making processes, the conflicts present within their relationships and the amount the patient helped out around the house. What is most pertinent to this study is the finding that about half the couples agreed on satisfaction ratings regarding their sexual relationships.

As was mentioned earlier in this chapter, similarity between partners' perceptions on certain aspects of their sexual relationships, such as sexual enjoyment (Hicks & Platt, 1970) and preferred frequency of coitus (Wallin & Clark, 1958) are related to their marital satisfaction.

Couple correspondence has also been investigated once a partner or the couple has undergone some form of

sexual, marital and/or medical treatment. What is the relationship between marital therapy and couple correspondence? Beutler (1971) studied the relationship between the outcome of marital therapy and the attitudinal convergence of marital partners and/or of either partner with their therapist. His results showed that improvement in marital therapy was related to attitudinal convergence between marital partners. He also found a significant trend of both partners acquiring their therapist's attitudes during treatment, yet this trend was unrelated to treatment outcome.

O'Leary and Arias (1983) assessed couple correspondence in a study investigating the effects of marital therapy on 44 couples' marital and sexual functioning. They found after their treatment couples reported a greater degree of correspondence on their marital satisfaction than before treatment. Both partners reported a similar, improved frequency of coitus and sexual satisfaction following treatment. Prior to and following marital therapy, there existed a significant correspondence for the partners in their perception of their partner's satisfaction with their sexual relationship; yet due to treatment, both partners reported a similar improvement in their perception of their partner's satisfaction levels.

What is known about couple correspondence for sexually dysfunctional couples that have received both

marital and sex therapy? Everaerd and Dekker (1981) compared the effects of sex versus communication therapy on 48 couples where the woman had orgasmic dysfunction. They found that the couples reported agreement in improved sexual satisfaction after sex therapy and disagreement after communication treatment, such that the male's sexual satisfaction decreased while the female's increased. A similar pattern was found for the couples' agreement on their reports of improvements in the experience of their sexual interaction and their ability to achieve orgasm. Couples tended to agree that sex therapy improved their sexual relationship yet they disagreed as to the benefit of communication therapy in improving their sexual satisfaction and behaviors.

What is known about couple correspondence on psychological and sexual adjustment following medical treatment? Christensen (1983) evaluated the efficacy of a structured couples' treatment program for 20 postmastectomy patients and their partners. They found that their treatment yielded a similar pattern for both the patient and her partner such that both experienced a decrease in their emotional discomfort and an increase in their sexual satisfaction. In addition, the patient reported a decrease in her level of depression. To date, this is the only study to investigate

couple correspondence and medical treatment. There is a great need for more of these kinds of investigations.

Couple correspondence research also has let us understand more about male/female relationships, especially in terms of the level of agreement or similarity within couples. It is now known that similarity among partners on certain factors (e.g., background, values, personality traits, perception of their sexual relationship) is related to marital satisfaction. It is also known that partners within a couple vary in their level of agreement when rating behaviors within and their perception of aspects of their relationships.

Correspondence has been studied for couples who have experienced some form of sexual, marital or medical treatment. As a result of sex therapy, many partners reported the trend of similar gains in their psychological and marital adjustment. Correspondence following marital therapy sometimes occurs. Partners' convergence in values is related to the couple's improvement in marital therapy, and there is greater correspondence on their marital and sexual satisfaction. It is also known that among couples receiving both marital and sex therapy, the partners tend to agree more on their sexual satisfaction and interaction following sex therapy than with marital therapy.

More research is needed about couple correspondence and medical treatments. It is apparent that a postmastectomy patient and her partner respond similarly with improved emotional comfort and sexual satisfaction after participating in a group treatment program. Although some information is known about the level of agreement or degree of similarity between partners, more research is needed to understand couples at this level, especially regarding couple correspondence on their sexual satisfaction and on the factors on which couple's correspond that contribute to their sexual satisfaction.

One purpose of this study was to investigate the postsurgical couple correspondence for implant couples on their psychological and sexual adjustment. This study investigated the similarity between the implant patient and his sexual partner on their reports of psychological symptoms, sexual attitudes, frequency of sexual activity, sexual drive and sexual experiences. After investigating the degree of couple correspondence on these psychological and sexual factors, the strength of the relationship between the couple's correspondence on these factors and the patient and partner's sexual and implant satisfaction was ascertained.

### Surgical Treatment of Impotence

Penile prostheses have become a viable treatment alternative for the estimated four to six million U.S. males who are organically impotent (AMS, 1982). Implantation of a penile prosthesis has been a standard, common surgical procedure by urologists to treat impotence since the early 1970s.

Initially, surgeons worked with just the patient during presurgical screening and postsurgical follow-up (Renshaw, 1979). Within the last half decade, it has become a commonly recommended procedure to involve both patient and sexual partner in both screening and follow-up (Renshaw, 1979; Sotile, 1979; Beutler & Gleason, 1981). Sotile (1979) recommends that the screening consist of assessing the patient's/partner's expectations regarding the outcome of surgery and the stability both of the implant couple's sexual and nonsexual relationship. In the 1970s, Renshaw (1979) pointed out that during postsurgical follow-up, both surgeons and researchers tended to rely on the word of their patients as to how their partner was adjusting. Surgical implantation can have significant repercussions on the couple's relationship, and despite surgical success can result in an interpersonal disaster without partner involvement (Renshaw, 1979; Beutler & Gleason, 1981). Beutler and Gleason (1981) emphasize that follow-up is

needed "to evaluate the degree to which the treatment is effective and the behavioral or psychological changes that take place in the individual and the sexual relationship as a function of the treatment" (p. 341).

The next section of this literature review will include: types of implants and their surgical efficacy; the postsurgical psychological adjustment of the patient and his partner; and the postsurgical marital and sexual adjustment of the implant couple, including the couple's sexual satisfaction and couple correspondence.

#### Efficacy of Surgical Implantation

Types of Penile Protheses. The two major subtypes of implants are the rigid or semirigid devices and the inflatable devices. Pearman (1967) developed the first recognized rigid prosthesis. There are several variations of the semirigid implants, including the Small-Carrion (Small et al., 1975), Finney (1977), Jonas (Krane et al., 1981) and Dow-Corning (Subrini, 1980) devices. Both the rigid and semirigid devices consist of silicone rods that are surgically implanted in the penile shaft which result in a constant state of erection for the recipient.

Scott and associates (1973) developed the inflatable penile prosthesis (IPP). The IPP consists of inflatable silicone cylinders which are surgically implanted in the penile shaft, a pump which is implanted in the scrotum, and

a reservoir which is implanted in the abdomen. Such a mechanical apparatus allows the recipient to manipulate the pump in order to bring his penis from a flaccid to an erect state whenever he desires.

The men in this particular study received either the rigid and semirigid prostheses created by Pearman, Small-Carrion or Finney or the inflatable penile prosthesis created by Scott and associates. In turn, the following review of literature will focus mainly on these types of prostheses.

Most literature on penile prostheses is in medical journals and consists of descriptions of: the surgical procedures utilized, the surgical success rates, and the frequency of medical complications. Some of these studies report levels of patient/partner satisfaction with the implant. Much less common are studies which describe the postsurgical psychological, marital, and sexual adjustment of the patient and his partner. For the most part, research on the effects of a penile prosthesis on the patient and his partner has consisted of descriptive, nonsystematic, retrospective follow-up evaluations.

Surgical Success. The most common method of evaluating surgical success is for the surgeon to evaluate the outcome of their own surgery as either a success or a failure. Complication rates are another means of evaluating

surgical success. Frequency of complications vary with type of implant, with the IPP tending to have more complications due to mechanical failures, than the noninflatable implants (Kaufman, Lindner & Raz, 1982; Montague, 1983). Common complications include infections, pain, cylinder malfunction, or extrusion of a silicone rod through penile tissue.

Some researchers have chosen to directly ask the patients and sometimes their partners to evaluate their level of satisfaction with the prosthesis. For the most part, studies report on the surgical efficacy of just one type of implant, yet there are a few studies that provide comparative data. All of these latter studies will be reported here.

The rates of surgical success appear to be quite similar across types of prostheses. The criterion utilized to evaluate surgical success were similar but not identical across these implant studies. The efficacy of Small-Carrion implants has ranged from 88% to 98% (Small et al., 1975; Small, 1978; Kramer, Anderson, Bredael & Paulson, 1979; Malloy et al., 1980). Pearman (1967) described the results of the surgery with his first five patients as successful among all, while Gee and associates (1974) claimed a 79% surgical success rate upon implanting the Pearman device. The surgical success of the Finney prosthesis has ranged from 90% to 95% (Finney, 1977; Finney, Sharpe & Sadlowski,

1980). Studies investigating the efficacy of the IPP report success rates ranging from 92% to 98% (Furlow, 1978a; Scott, Byrd, Karacan, Olsson, Beutler & Attia, 1979; Malloy et al., 1980; Kessler, 1981; Hawatmeh, Gregory, Houttin & Purcell, 1981; AMS, 1982). Apte, Gregory and Purcell (1984) found an interesting contrast between patient's medical records and patient's self-report via a survey on the surgical success rates following implantation of an IPP. The rate of surgical success on the patients' records was 94%, and the survey yielded an 81% success rate. Sotile (1979) reviewed 28 studies for their surgical success and complication rates. The 22 studies on the efficacy of semirigid prostheses resulted in an average of 89% success rates whereas the six IPP studies had an average of 90% surgical success. The differences in rates of surgical success across these studies may be due in part to differences in criteria utilized to evaluate success and in part may reflect the differences in efficacy across types of implants. From the surgeon's standpoint it appears that better than nine out of every ten surgical implantations will be successful, and yet from the patient's point of view it may be only eight of every ten surgeries are a success, regardless of the type of implant.

Frequency of Complications. Unlike the surgical success rates, complication rates vary across implant types.

The Finney device seems to be the most reliable type of prosthesis, with only a 5-10% rate of complications (Finney, 1977; Finney et al., 1980; Barry, Giesy & McDuffie, 1982; Kaufman et al., 1982). The complication rate for the Small-Carrion implant is a little higher than the Finney device, with a range of 8 to 26% (Small et al., 1975; Small, 1978; Golji, 1979; Kramer et al., 1977; Malloy et al., 1980; Chaikin, Carrion & Politano, 1981; Kaufman et al., 1982). The IPP does have the greatest frequency of complications since both the surgical procedure and the mechanics of the device are more complex than the other types of implants. The frequency of complications with the IPP ranges from 16 to 50% for up to three years following surgery (Malloy & von Eschenbach, 1977; Furlow, 1978a, 1978b; Gerstenberger, Osborne & Furlow, 1979; Scott et al., 1979; Kessler, 1981; Fallon, Rosenberg & Culp, 1984; Joseph, Bruskevitz & Benson, 1984). It has been found that the rate of complications for the IPP has decreased with the more recent improvements made in the mechanism of the implant (Scott et al., 1979; Kessler, 1981). In addition, Motague (1983) found that frequency of complications with the IPP decreased when the surgeon made his incision via the scrotal approach rather than in the lower abdomen. Sotile (1979), in his comparative review of 28 implant studies, found that the average rate of complications for semirigid implants was 17%

and for IPP devices the average was 31%. It appears that the recipients of an IPP are at least twice as likely to experience complications as are recipients of semirigid prostheses. This is important, because if the implant is not functioning properly the patient is less likely to be satisfied.

Satisfaction with the Prosthesis. Little is known about the patient's and his partner's level of satisfaction with the implant. Kaufman and associates (1981) report that 78% of their patients are either completely or somewhat satisfied with their Small-Carrion implants. None of the studies on the Finney or Pearman devices investigated the patient's level of satisfaction. The studies that evaluated the patient's level of satisfaction with their IPP have typically found that from 90-100% of the patients were satisfied with their implant (Malloy & von Eschenbach, 1977; Furlow, 1978a; Kessler, 1980; Hawatmeh et al., 1981; Light & Scott, 1981; Schlamowitz et al., 1984). The exception to this pattern is a study by Gerstenberger et al. which reports that only 74% of the patients were satisfied. This difference in efficacy may be due to differences in the criteria utilized to evaluate satisfaction with the prosthesis.

Several studies investigated patients' levels of satisfaction with their implants where some of the men

received semirigid prostheses and others received the IPP. The results of these studies suggest that satisfaction levels for patients with either type of prostheses ranges around 80% (Beaser et al., 1982; Segraves, Schoenberg & Zarins, 1982; Hollander & Diokno, 1984). Beutler and associates (1986) found that patients receiving the IPP reported significantly greater satisfaction with their implant than did patients receiving the noninflatable implants. This finding by Beutler et al. (1986) supports the differences found between the studies investigating the level of satisfaction for the IPP alone versus the level of satisfaction with the Small-Carrion.

Several investigators studied the partner's level of satisfaction with their male partner's prosthesis (Gerstenberger et al., 1979; Light & Scott, 1981; Beaser et al., 1982; Segraves et al., 1982; Schlamowitz et al., 1983; Beutler et al., 1984). In two studies, approximately three-quarters of the partners of men who received the IPP reported being satisfied with the implant (Gerstenberger et al., 1979; Light & Scott, 1981). Schlamowitz and associates (1983) reported that all twelve of the partners reported satisfaction with the IPP. In both of the two studies where some of the men received semirigid implants and the others received the IPP, 83% of the partners reported satisfaction with the prosthesis (Beaser et al., 1982; Segraves et al.,

1982). Beutler and associates (1984) found that, like their male counterparts, female partners of men who received the IPP reported significantly greater satisfaction with the prosthesis than did partners of men who received semirigid prostheses.

For the most part, there appears to be a high level of correspondence between the patient and his partner on ratings of satisfaction with the prosthesis. Light and Scott's (1981) study is the only one out of the five investigations reporting a large difference between the patient (93%) and partner's (75%) satisfaction ratings. The other four investigations reported patient/partner satisfaction ratings as nearly identical (Gerstenberger et al., 1979; Beaser et al., 1982; Segraves et al., 1982; Schlamowitz et al., 1983).

In summary, despite the higher frequency of complications for the IPP compared to semirigid prosthesis, the surgical success rate for IPPs is equivalent to that of the semirigid implants. In addition, recipients of the IPP and their partners report a level of satisfaction with their implant at least equal to, if not greater than, the semirigid implant recipients and their partners. On four of the five studies there seems to be a high level of correspondence between marital partners on their ratings of satisfaction with the prosthesis.

The implant patient's and his sexual partner's level of satisfaction with the prosthesis was investigated in this study. The strength of the relationship between each partner's level of satisfaction with the prosthesis and their postsurgical sexual satisfaction was also investigated. Finally, the relative contribution of individual adjustment, correspondence on adjustment and type of prosthesis to satisfaction with the prosthesis was investigated.

#### Postsurgical Adjustment of Implant Patient and Partner

Research on the postsurgical psychological and sexual adjustment of the implant patient began in the mid-1970s. These implant studies have been descriptive, retrospective, postsurgical follow-up evaluations. The state of the art of research in such implant studies is truly in its infancy. As with research on other surgical procedures, there has been no random assignment of subjects to treatment versus control groups. Seldom have subjects been randomly selected from a larger subject pool. Usually they have been the available medical center patients and their partners who are willing to participate in such a study. In the 18 patient studies surveyed, the number of men studied ranges from 5 to 137, with an average of approximately 45. There have been fewer studies involving the sexual partners, and the number of partners studied

ranges from 6 to 54, with an average of approximately 25 women. The methods of evaluating the patient's and partner's postsurgical psychological, marital and sexual adjustment are usually by either a semistructured interview or a nonstandardized questionnaire administered at least six months after surgery. In a few studies, standardized instruments such as the MMPI and the Derogatis Sexual Functioning Inventory (DSFI), were administered to the patients (Schlamowitz et al., 1983; Beutler et al., 1986) and their partners (Beutler et al., 1984). These studies have not been experimental research. They have not used no-treatment, control groups, and they rarely use pre- and postsurgical comparisons. At best, these studies can be described as descriptive or correlational research.

The results of one of the earliest studies on the patients was conducted by Scott and associates (1973). They found in their multiple case studies that following implantation of an IPP, two of the five couples reported resuming satisfactory sexual relations, and one patient experienced a change in his personality such that his self-confidence increased dramatically. In an early descriptive study, Gee and associates (1974) evaluated the postsurgical sexual adjustment of fifteen recipients of the Pearman implant and found that nine of the men reported satisfaction and five reported dissatisfaction with their

postsurgical sexual performance. These early studies indicated that some recipients had reported an improved psychological adjustment and sexual satisfaction.

Kramarsky-Binkhorst (1978) was the first to research the impact of a prosthesis on the psychological and sexual well-being of the sexual partner. She described the results of her interview with the 31 female partners of the Small-Carrion recipients. Since her study, there have been over twenty studies that have described the psychological, marital and/or sexual adjustment of the implant patient and/or his sexual partner. Those studies that are most relevant to the purposes of this study will now be reviewed.

Psychological Adjustment. The recipients of penile prostheses have reported changes in their psychological well-being following implantation (Smith et al., 1979; Kaufman et al., 1981; Blake, McCartney, Fried & Fehrenbaker, 1983; Schlamowitz et al., 1983; Beutler et al., 1986). Schlamowitz and associates (1983) found that 90% of the organic patients and 57% of the psychogenic patients reported feeling much better following implantation of the IPP. Of the 49 recipients of the Small-Carrion implant, 37% reported excellent and 41% reported good postsurgical emotional adjustment (Kaufman et al., 1981). Blake and associates (1983) found none of their 24 subjects reporting any significant levels of depression after receiving either

a Small-Carrion or Finney implant. Smith and associates (1979) found only 2 of their 45 subjects reporting any marked depression following implantation of either an inflatable or Small-Carrion prosthesis. The other 43 patients reported increased self-esteem and virility following surgery. Beutler and associates (1986) evaluated the patient's report of the incidence of postsurgical psychiatric symptoms and found that recipients of the semirigid implants reported significantly more symptoms than recipients of the IPP.

Less seems to be known about the psychological adjustment of the partners of implant recipients. Kramarsky-Binkhorst (1978) found that many of the 31 partners she studied reported various pre- and postsurgical concerns. Some of the presurgical concerns were regarding their continued desirability to the patient and their ability to turn the patient on. The partners postsurgical complaints included the penis being too short, fear of harming, and refusal to touch the penis. Kaufman and associates (1981) found that a small percentage of their partners reported that the penis either looked and/or felt fake. Both Taine (1979) and Beutler (1979) found that a small minority of the partners are bothered by the fact that the man's erections are not caused by passion. Schoenberg et al. (1982) found that following implantation, many of the

20 wives are happy with the changes they observe in their husbands "after restoration of his sense of maleness" (p. 446). The incidence of postsurgical psychiatric symptoms was measured for the partners, and it was found that there was no difference in the level of symptoms for partners of semirigid versus partners of IPP recipients (Beutler et al., 1984).

In summary, it is known that following implantation, men tend to report improvement in their moods and their emotional adjustment, including minimal incidence of depression, increased self-esteem and virility. In addition, recipients of the IPP report less postsurgical psychiatric symptoms than do semirigid recipients. It is also known that the partners of implant recipients have expressed a variety of pre- and postsurgical concerns and yet are happy for the man's improved self-image. And in contrast to their male counterparts, there is no difference in the incidence of postsurgical psychiatric symptoms for IPP versus semirigid partners.

One of the purposes of this study is to investigate the correspondence for the implant couples on their postsurgical psychological adjustment. This was done by measuring the incidence of postsurgical psychological symptoms for implant patients and their sexual partners, and then establishing the degree of couple correspondence on their

psychological adjustment. The second purpose of this study includes the investigation of the relative contribution of each individual's psychological adjustment and correspondence on their psychological adjustment to the patient's and sexual partner's sexual and implant satisfaction.

Marital Adjustment. Very little seems to be known about the postsurgical marital adjustment of implant couples. Kaufman and associates (1981) investigated the patient's report of pre- versus postsurgical changes in the quality of their relationship and marital adjustment. They found the 49 Small-Carrion recipients reporting no change in the quality of their relationship as a result of implantation. Significant improvement was found in their marital adjustment such that 30% of the men reported preoperative excellent (12%) or very good (18%) marital adjustment, whereas 57% of the men reported postoperative excellent (24%) or very good (33%) marital adjustment.

Gerstenberger and associates (1979), in their postsurgical follow-up of 61 IPP recipients and their 54 partners, questioned the patients as to their perception of the benefit of the implant to the sexual and nonsexual aspects of their relationship. They found that 42% of the men reported much improvement, 19% reported slight improvement, 32% reported no change and only 7% reported that their relationship became slightly worse. They noticed

that the patient's reporting satisfaction with their implant reported significantly greater benefit of the implant to their relationship.

Beutler and associates (1986) compared the postsurgical psychological, marital and sexual adjustment for IPP versus noninflatable recipients. They found that recipients of the IPP reported greater positive changes in their postsurgical relationships than did the noninflatable recipients.

What is known about implant couples' marital adjustment is that the quality of their relationships may not change after surgery, but many of the patients are likely to report improved marital adjustment and benefit to the sexual and nonsexual aspects of their relationships following implantation. In addition, it is known that recipients of the IPP are more likely to report positive changes in their relationships than are recipients of noninflatable implants.

Sexual Adjustment. The postsurgical sexual adjustment of the implant recipient and his sexual partner is the nonmedical area most frequently studied. There have been case studies in the literature that report that despite surgical success, the implant couple has been unable to achieve sexual satisfaction and sought out sex therapy to overcome their dissatisfaction (Divita & Olsson, 1975;

Krauss, Bogin & Culebras, 1983). And yet what seems to be the norm is what Taine (1979) has observed, "Sexual activity made possible by a prosthesis seems to be experienced by most couples as normal activity" (p. 22). The areas of sexual adjustment that have been researched and are relevant to this study include the patient's and partner's post-surgical: frequency of sexual activity, sexual interest, satisfaction with erections, concern over and incidence of infidelity, body image, factors related to satisfaction with the implant and sexual satisfaction. This review will include any studies that have investigated couple correspondence on any of the postsurgical sexual adjustment factors.

It appears, as would be expected, that most implant couples do report an increase in the frequency of their postsurgical sexual activity (Gerstenberger et al., 1979; Golji, 1979; Smith et al., 1979; Kaufman et al., 1981; Blake et al., 1983; Schlamowitz et al., 1983; Beutler et al., 1984). These studies reported that frequency of coitus following recovery from surgery was greater than frequency experienced prior to implantation. Two studies found that postsurgical frequency of coitus was close to but just less than the frequency experienced by the men prior to the onset of their erectile dysfunction (Gerstenberger et al., 1979; Blake et al., 1983).

Finney (1977) found that some of the partners in his study reported better sexual performance from the patients, postsurgically, than prior to the onset of impotence. Kaufman and associates (1981) found that his 49 Small-Carrion recipients reported a median presurgical sexual frequency of once per week, whereas they reported a postsurgical median of two to three times per week. Schlamowitz and associates (1983) found, in their study of 17 IPP recipients and 12 of their partners, that 60% of the partners reported an increase in frequency of orgasm and 80% reported an increase in duration of sex play. It is interesting to note that Smith and associates (1979) found no significant difference in the postsurgical frequency of coitus between recipients of the IPP versus the Small-Carrion implant, whereas Beutler and associates (1986) found that IPP recipients reported a significantly greater frequency of postsurgical orgasms than did the noninflatable recipients. It is not clear as to the reason for this difference in findings. It might be due to the fact that there could be a difference in frequency of coitus versus orgasms, or it might be due to differences in the subjects. In summary, implant recipients and their partners do seem to experience an increase in their sexual activity following implantation, and their level of sexual activity may nearly equal the level of activity prior to the onset of impotence.

It appears that the implant has neither a positive nor negative effect on the patient's postsurgical libido (Kaufman et al., 1981; Blake et al., 1983). Interest in sex was approximately the same for 49 Small-Carrion recipients (Kaufman et al., 1981). Blake and associates (1983) evaluated 24 recipients of semirigid implants and 13 of their partners, and found that none of them reported any loss in their sexual interest. Although it seems that the implantation of a prosthesis does not appear to improve the patient's libido, it does appear to allow the individual's libido to be more adequately expressed as is demonstrated by the increased sexual activity of the implant couple.

The patient's and partner's perception of the quality of and their satisfaction with the man's erection following implantation of a prosthesis has been studied (Furlow, 1978b; Blake et al., 1983; Schlamowitz et al., 1983; Hollander & Diokno, 1984). Furlow (1978b) studied 63 recipients of the IPP and found that 95% of these men reported having satisfactory erections. Hollander and Diokno (1984) investigated the sexual adjustment of 20 recipients of the IPP and 18 recipients of semirigid implants. They found that 88% of the IPP recipients and 86% of the semirigid recipients reported being satisfied with the quality of their postsurgical erections. Schlamowitz and associates (1983) studied a group of organically

(n = 10) and psychogenically (n = 7) impotent men who received the IPP. They found that 80% of the organic and 29% of the psychogenic patients reported their postsurgical erections as nearly or exactly the same as their preimpotence erections. In addition, these 17 patients reported themselves as being mostly to totally satisfied with the firmness, length and circumference of their inflated erections. Blake and associates (1983) had both the patients and partners rate the quality of the semirigid erections on a scale from one (poor) to ten (excellent). The result was a high degree of couple correspondence, such that the average patient's rating was 6.4 and the partner's rating was 6.3. In summary, it appears that there is a high level of satisfaction with the appearance and quality of postsurgical erections, and that there seems to be agreement between the patient's and partner's perception of the quality of the patient's erections.

Implant Satisfaction. Earlier in the literature review on the surgical treatment of impotence, one of the areas addressed was the patient's and partner's level of satisfaction with the implant. There are multiple factors that have been found to be related to the couple's satisfaction with the implant.

Beaser and associates (1982) analyzed completed questionnaires from 91 patients and 54 of their partners.

Most of these patients had received a semi-rigid implant. A few had received an inflatable implant. Beaser et al. found that there was a significant relationship between the couple's satisfaction with the implant and the factors of the couple's realistic expectations regarding surgical outcome, the degree to which any postsurgical medical complications were resolved and age of the patient. This last factor of age showed that middle-aged men were more satisfied than younger or older men. In contrast, Gerstenberger et al. (1979) found that the age of their 61 IPP recipients did not relate to the couple's satisfaction with the prosthesis. The only discernible differences in these two studies that might account for the different results is that the former study involved mainly semirigid recipients whose average age was 49, and the latter was with recipients of the IPP whose average age was 55.

Beaser et al. (1982) found that satisfaction with the implant was not related to type of implant. The opposite results were found by Beutler et al. (1986). In this study the recipients of the IPP reported greater satisfaction with their implants than did noninflatable recipients. The difference in distribution of types of implants between these two studies suggests why the findings are contrary. Beaser's population consisted of 95% of their patients had received noninflatable versus 5% inflatable

implants. Beutler's population consisted of 78% with inflatable recipients; 22% received noninflatable implants.

Gerstenberger et al. (1979) found that their IPP recipient's and partner's level of satisfaction with the implant was related to the patient's existing, uncorrected medical problems and the degree and locale of postsurgical discomfort and was not related to cause of impotence. These latter findings are in conflict with Gee and associates (1974), who found that their 19 recipients' level of satisfaction with their Pearman implant was related to the diagnosis of erectile dysfunction. What might account for the opposing findings between these two studies is that there are differences in the populations investigated, such as type of implant and cause of impotence.

It is unclear as to what, if any, sexual factors might be related to the couple's satisfaction with the implant. Gerstenberger and associates (1979) found that the patients who reported satisfaction with their IPP also reported a higher frequency of postsurgical sexual activity than those patients reporting dissatisfaction with their IPP. On the other hand, Blake and associates (1983) found that none of their semirigid implant patients or partners identified dissatisfaction with the surgical results as responsible for a decline of coital frequency or sexual interest. Blake found that there was no causal

relationship, but what Blake does not make clear is whether or not there may be a correlational relationship between these sexual factors and implant satisfaction as Gerstenberger et al. (1979) found for sexual frequency.

In summary, the patient's and partner's level of satisfaction with the implant seems to be related to: the couple's realistic expectations regarding surgical outcome; the degree to which any postsurgical medical complications were resolved; the degree and locale of postsurgical discomfort; and the frequency of sexual activity. Furthermore, it is not clear as to what, if any, relationship exists between satisfaction with the implant and age of patient, type of implant and cause of erectile dysfunction.

Sexual Satisfaction. The incidence and level of postsurgical sexual satisfaction for the implant recipient and his sexual partner has been frequently reported in the literature (Scott et al., 1973; Gee et al., 1974; Furlow, 1978b; Golji, 1979; Smith et al., 1979; Kessler, 1980; Kaufman et al., 1981; Krane et al., 1981; Light & Scott, 1981; Subrini, 1982; Schlamowitz et al., 1983; Beutler et al., 1984; Hollander & Diokno, 1984; Beutler et al., 1986). Sexual satisfaction following implantation usually has been measured in a nonstandardized way by interview or questionnaire, or a Likert-type scale. More recently a standardized instrument, the DSFI, has been used to measure

the patient's and partner's level of postsurgical sexual satisfaction (Beutler et al., 1984; Beutler et al., 1986). Very little seems to be known about the factors that may be related to the implant couple's sexual satisfaction.

In different studies it was found that the incidence of sexual satisfaction ranged from 43% to 96%. The population with the fewest subjects reporting sexual satisfaction was a group of seven psychogenically impotent recipients of the IPP (Schlamowitz et al., 1983). Organically impotent men who have received the IPP usually range from 80-96% in reporting their sexual satisfaction (Kessler, 1980; Light & Scott, 1981; Schlamowitz et al., 1983). Sixty to ninety-six percent of the organically impotent semirigid implant patients report postsurgical sexual satisfaction.

Two studies found that IPP recipients reported greater incidence and level of postsurgical sexual satisfaction than did semirigid implant recipients (Hollander & Diokno, 1984; Beutler et al., 1986). On the other hand, Smith and associates (1979) found no difference in the incidence of sexual satisfaction between recipients of a Small-Carrion implant versus an IPP. The difference in findings may be due either to the fact that the population of semirigid recipients in the former studies consisted of either Small-Carrion, Pearman and/or Finney recipients, or to the fact that there were different instruments used to

investigate sexual satisfaction. From the results of the three studies, one might conclude that type of implant, especially IPP versus semirigid implants in general, may be related to the patient's postsurgical sexual satisfaction.

Six studies described the patient's and partner's correspondence on their postsurgical sexual satisfaction (Gee et al., 1974; Golji, 1979; Krane et al., 1981; Light & Scott, 1981; Subrini, 1982; Schlamowitz et al., 1983). Gee and associates (1974) compared the Pearman recipient's reports of their own sexual satisfaction to the patient's reports of their perception of their partner's satisfaction with their postsurgical sexual performance. They found 100% couple correspondence. The patients saw both groups as being equally satisfied (60%) versus dissatisfied (33%) with their sexual performance.

After the implantation of the Small-Carrion implant in 20 spinal-cord injury patients, Golji (1979) simply states that he had found that the sexual pleasure had improved for both the patient and his partner. Krane and associates (1981) investigated the postsurgical sexual satisfaction of 19 recipients of the Jonas implant and 18 of their partners. They found that 89% of the patients reported satisfaction with their sexual intercourse, and similarly, 89% of the partners reported experiencing coital enjoyment. Light and Scott (1981) found that 93% of their

14 spinal cord injury patients reported sexual satisfaction following implantation of an IPP. In contrast, they found 75% of the 12 sexual partners reporting postsurgical sexual satisfaction. Two of the dissatisfied partners reported marital dissatisfaction.

Subrini (1982) investigated 137 recipients of the Dow-Corning implant and their partners on their satisfaction with the quality of their postsurgical intercourse. He found a high level of correspondence such that 74% of the patients and 70% of the partners reported sexual satisfaction. In addition, Subrini (1982) concluded that the cause of impotence is the most important factor in influencing quality of coitus.

Schlamowitz and associates (1983) investigated both the couple's postsurgical sexual satisfaction and the effect of the IPP on the couple's satisfaction with their interpersonal sexual or marital relationships. Sixty-five percent of the men reported greatly increased sexual satisfaction, and sixty-seven percent of the partners rated themselves as totally satisfied sexually. Furthermore, an additional 33% of the partners reported feeling mostly satisfied sexually following implantation. Satisfaction with the implant couple's interpersonal sexual or marital relationships increased greatly for 65% of the men and for 58% of the partners. It appears that there is a high degree of

correspondence between IPP patient and partner on sexual satisfaction and satisfaction with their sexual or marital relationship.

What is known about the postsurgical sexual satisfaction for implant patients and partners includes: the incidence of sexual satisfaction for organic patients ranges from 60-96%; that there tends to be a high level of couple correspondence on their postsurgical sexual satisfaction and satisfaction with their sexual or marital relationship; and that the factors of type of implant and causation of erectile dysfunction may be related to sexual satisfaction. Not much is known about the different factors that may be related to the implant couple's postsurgical sexual satisfaction.

One of the purposes of this study was to investigate the couple correspondence on their postsurgical sexual adjustment. This was done by establishing the degree of correspondence on such sexual factors as: frequency of sexual activity; preferred frequency of coitus; sexual attitudes; sexual experiences; and sexual information. A second purpose of this study was to investigate the relative contribution of each individual's sexual adjustment, correspondence on their sexual adjustment and type of implant to the patient's and partner's sexual and implant satisfaction. What is the strength of the relationship

between the patient's and partner's sexual and implant satisfaction and their individual adjustment or correspondence on their adjustment on the sexual factors of frequency of sexual activity, preferred frequency of coitus, sexual attitudes and sexual experiences? This question has been addressed in this study.

#### Summary of the Literature

This review of literature has consisted of three main themes: first, the cause, impact and treatment of impotence; second, marital and sexual satisfaction and couple correspondence; and third, the psychological, marital and sexual impact of surgical treatment on the implant couple. This study has been an investigation of the postsurgical psychological and sexual adjustment of couples where the man, who was once organically impotent, has since received a penile prosthesis. The initial purpose has been to investigate the degree of couple correspondence on the patient's and his partner's postsurgical psychological and sexual adjustment. The second purpose has been to establish the relative contribution of individual psychological and sexual adjustment, couple correspondence on their psychological and sexual adjustment, and type of implant received to the patient's and partner's sexual and implant satisfaction.

Prior research has revealed multiple psychological and sexual factors that seem to show a high degree of couple

correspondence and that are relevant to this study. The psychological factors that were found to have posttreatment couple correspondence included: personality traits; psychological adjustment; convergence of attitudes; and congruence of perceptions. Couple correspondence on sexual factors has been studied for both implant and nonimplant couples. The sexual factors for nonimplant couples that was found to have couple correspondence was actual and preferred frequency of coitus. Implant couples show postsurgical similarity on their: level of satisfaction with the prosthesis; perception of the appearance of the patient's erections; perception of partner's concern over patient's infidelity; and sexual satisfaction. This study has investigated the degree of couple correspondence on some of these psychological and sexual factors.

Much more seems to be known about the factors that are related to marital satisfaction. Since marital and sexual satisfaction are related, it was thought that some of the factors related to marital satisfaction may also be related to sexual satisfaction. These factors include similarities in the couple's ages, attitudes, preferred frequency of coitus, as well as either the patient's or partner's sex drive.

The sexual factors that have been found to contribute to a couple's sexual satisfaction have been

studied for both nonimplant and implant couples. The sexual factors pertinent to this study that have been found to be related to the sexual satisfaction for nonimplant couples include frequency of sexual activity and accuracy of sexual knowledge. The postsurgical sexual satisfaction of implant couples has been found to be related to type of implant. This study has investigated the strength of the relationship between individual psychological and sexual adjustment, correspondence on psychological and sexual adjustment, and type of implant received to the patient's and partner's sexual and implant satisfaction.

#### Statement of the Problem and Hypotheses

It appears that minimal research has been conducted on implant couples to investigate their individual postsurgical experiences as well as their correspondence on estimates of their psychological and sexual adjustment. And it is evident that very little is known about factors contributing to the implant couple's postsurgical sexual satisfaction and satisfaction with the implant.

#### Problems

This study has been designed to answer the following questions. How compatible or similar is the implant patient to his sexual partner in their perceptions of their psychological and sexual adjustment? Is sexual satisfaction

and satisfaction with the implant more strongly related to correspondence (degree of similarity) on the couple's psychological and sexual adjustment, to the individual's adjustment or to the type of implant received? These questions have been based on the following purposes of this study:

1. To examine the degree of similarity (correspondence) for the implant couple on their psychological and sexual adjustment.
2. To assess the relative contribution of three variables to the sexual satisfaction and satisfaction with the implant for men who have received a penile prosthesis. The three variables are:
  - a. Individual adjustment: The implant patient's and partner's psychological states, sexual attitudes and knowledge, sexual drive and experiences.
  - b. Couple correspondence: Compatibility or similarity between the patient's and partner's perceptions of their psychological states, sexual attitudes and knowledge, sexual drive and experiences.
  - c. Type of implant received.
3. To assess the relative contribution of three variables to the sexual satisfaction and satisfaction

with the implant for the female sexual partners of implant recipients. The three variables are:

- a. Individual adjustment: The implant patient's and partner's psychological states, sexual attitudes and knowledge, sexual drive and experiences.
- b. Couple correspondence: Compatibility or similarity between the patient's and partner's perceptions of their psychological states, sexual attitudes and knowledge, sexual drive and experiences.
- c. Type of implant received.

#### Hypotheses

Prior research indicates that individual factors, couple correspondence and type of treatment (e.g., surgical implantation, sex or marital therapy) all contribute to each member of the couple's sexual and marital satisfaction. Yet the question remains which of these factors make the most significant contribution to satisfaction. The hypotheses that were investigated are:

1. The implant patient's sexual satisfaction and satisfaction with the implant is more strongly related to how closely the implant couple correspond in their psychological and sexual adjustment than to

the individual adjustment of either partner or to the type of implant received.

2. The female sexual partner's sexual satisfaction and satisfaction with the implant is more strongly related to how closely the implant couple correspond in their psychological and sexual adjustment than to the individual adjustment of either partner or to the type of implant received.

It was hypothesized that in this study the implant patient's and partner's satisfaction was more a function of the couple getting along well and being similar in adjustment than due to their individual adjustment or type of implant. These hypotheses were based on the findings within the literature that suggest that a couple's satisfaction with their sexual and marital relationship is related more strongly to similarities in such factors as their personality, attitudes and preferred frequency of sexual activity than to individual factors or type of treatment.

These hypotheses could not be tested directly because of ethical and practical constraints that mitigate against random assignment of subjects to treatment. However, correlational patterns could provide partial support for these hypotheses and were, in turn, be utilized in this study. In exploration of these hypotheses, the investigation proceeded in several steps. One step entailed

ascertaining the couple's similarity on their psychological and sexual adjustment and then investigating the relative contribution of their correspondence to sexual satisfaction and satisfaction with the implant for the implant patient and partner. Another step included determining the relationship between patient and partner satisfaction (sexual and implant) and the individual psychological and sexual adjustment of the implant patient and his sexual partner. The final step entailed determining the relationship between patient and partner satisfaction (sexual and implant) and type of implant. If these hypotheses were true, assessment via stepwise regression procedure should reflect the relative contribution of correspondence to satisfaction to be above and beyond the contribution of individual adjustment and type of implant.

#### Definition of Terms

1. Erectile dysfunction: More commonly known as impotence. It is the inability of a man to achieve or sustain an erection suitable for vaginal penetration and sexual intercourse.
2. Type of implant: Also referred to as penile prosthesis. A silicone rod or cylinder that is surgically implanted within the penis of a man who has been experiencing erectile dysfunction. There are two types of implants that will be investigated

in this study. The inflatable penile prosthesis and the noninflatable (e.g., rigid or semirigid) prostheses.

3. **Implant couple:** A couple that consists of a female sexual partner and a male who had been experiencing organic impotence and had, in turn, received a penile prosthesis. The couple may or may not be married.
4. **Adjustment:** The implant patient and his partner's report of their postsurgical psychological, and sexual functioning, as measured by the DSFI, Arizona and Baylor questionnaires.
5. **Couple correspondence:** A process of assessing the level of agreement or degree of similarity among the partners of a couple on their adjustment, in order to understand their relationship in terms of one partner in relation to the other.
6. **Sexual satisfaction:** A concept that describes each sexual partner's perception of the degree of pleasure that he or she experiences in their sexual relationship, as measured by the DSFI, Arizona and Baylor questionnaires.
7. **Satisfaction with the implant:** The implant patient and his partner's report on the postsurgical level

of satisfaction they experience with the implant as measured by the Arizona and Baylor questionnaires.

8. Satisfaction: A concept that refers to both the sexual satisfaction and the satisfaction with the implant for both the implant patient and his sexual partner.

## CHAPTER 3

### RESEARCH DESIGN AND PROCEDURES

In order to test the research problems and hypotheses described in Chapter 2, the following methodology has been implemented.

#### Selection of Subjects and Sampling Procedures

The men and women participating in this study were participants in a broader follow-up investigation on implant recipients (Beutler et al., 1986). and their sexual partners (Beutler et al., 1984). The larger investigation consisted of evaluating the patients and their partners on their postsurgical psychological, marital and sexual adjustment. This investigator was one of the primary investigators in this larger study. What has been reported in the literature thus far has consisted of comparative postsurgical evaluations between the inflatable versus noninflatable patients (Beutler et al., 1986) and on these same groups of sexual partners (Beutler et al., 1984). The psychological and sexual impact of the prosthesis on the couple, especially regarding couple correspondence and factors

related to their sexual and implant satisfaction, had not yet been investigated for this sample.

The male patients were selected from a population that had voluntarily requested and received implantation of either a noninflatable or inflatable penile prosthesis from urologists affiliated with either the University of Arizona Health Sciences Center or the Baylor College of Medicine in Houston, Texas. In order to be included in this study, the men had to have a primary diagnosis of organic etiology for their erectile dysfunction. To establish etiology of their impotence, all men had received a physical and urological exam. When the initial medical assessment revealed some possible psychological factors contributing to their impotence, eight of the patients then received either nocturnal penile tumescence evaluation and/or psychological assessment to establish primary organic etiology for their dysfunction.

This sample was not randomly assigned to surgery nor was there random selection after surgery. The sample consisted of men who had their prosthesis for at least six months and had received it at either of these two teaching hospitals between 1975 and 1982. The case records of 5 surgeons from the University of Arizona Health Sciences Center and 4 surgeons from Baylor College of Medicine resulted in a total population pool of 117 patients and 100 female partners.

### Sampling Procedures

Once the subject pool was identified, the surgeons sent out letters to each patient and partner requesting their participation in the larger investigation. Out of 100 sexual couples, 63 were identified as available and willing to participate. Of the 37 patients and partners who did not participate, 19 couples declined participation, 12 couples were unable to be contacted via registered mail and phone calls and 6 patients were deceased. The 63 couples who stated their willingness to participate were sent separate research packets which contained three questionnaires. Forty-nine of the couples returned the research packets. There were 34 couples in which the man received the IPP. Among four of the couples, the man received an IPP after having initially received a noninflatable prosthesis. With eleven of the couples, the man received only a noninflatable prosthesis, either the Finney (n = 10) or the Small-Carrion (n = 1) device. These 49 couples were the sample for this study. The demographic characteristics of the sample are presented in Appendix D.

### Method of Measurement and Data Collection

The procedure consisted of utilizing the data that had already been gathered on the 49 couples who participated in the aforementioned larger investigation conducted by

Beutler et al. (1984, 1986). The purposes of this study have been to direct attention to couple correspondence and to the factors that contribute to the couple's postsurgical sexual and implant satisfaction. The instruments used that pertain to this study included the Derogatis Sexual Functioning Inventory (DSFI) and the two nonstandardized questionnaires (see Appendices A-C).

#### Instruments

DSFI. Derogatis (1975) created this multidimensional, standardized inventory for the purpose of assessing an individual's current level of sexual functioning. It consists of 261 items which are a mixture of Likert-type and true-false questions. The DSFI is self-administered and takes approximately 45 minutes to complete. The 10 dimensions measured consist of 8 dimensions of sexual functioning and 2 dimensions of psychological functioning. The sexual dimensions include sexual knowledge, sexual experience, sex drive, sexual attitudes, sex role identity, sexual fantasies, body image and sexual satisfaction. The dimension of sexual experience consists of a list of 24 sexual activities and the subject is instructed to indicate whether or not they have ever experienced each of the sexual activities and to report if they experienced the activity within the past 60 days. Sex drive includes questions regarding the actual and preferred frequency of sexual activities.

The two psychological dimensions extracted from the DSFI include psychological symptoms and affects. There are nine psychological symptoms assessed which are averaged to comprise the Global Symptom Index (GSI). These include somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism. This dimension is a shortened version of Derogatis' (1977) Symptom Check List (SCL-90-R). The dimension on affects is a 40-item symptom rating scale. It consists of both positive and negative affects with the score representing the difference between the two.

The DSFI also has two global scores. One is the Sexual Functioning Index (SFI), which is a summary score derived from the 10 DSFI subtest scores. The other is the Global Sexual Satisfaction Index (GSSI) which reflects the individual's subjective judgment concerning the quality of his or her sexual activities. Hence, there are two scales on the DSFI to measure sexual satisfaction.

The DSFI has norms for men and women. The norms include both individuals that are nonpatient normals as well as those that are experiencing a sexual dysfunction. The sampling procedures do not appear to be random selection nor systematic gathering of subjects. The demographic

characteristics of the norm groups have been described (Derogatis & Melisaratos, 1979).

Both test-retest and internal consistency evaluations have been conducted on the DSFI to assess reliability. The test-retest coefficients for the subtests of experience, attitudes and symptoms are at least .90 and gender role and affect are above .80. Derogatis and Melisaratos (1979) concluded that the DSFI was quite reliable despite lower coefficients for information (.61) and body image (.58).

Since the DSFI is relatively new, the establishment of its validity is still in process. A factor analysis of the items indicates that the DSFI has content validity. In addition, the authors provide rationale for inclusion of each subtest that is tied to current knowledge of human sexual functioning. There is separation of groups, concurrent validity such that there are significant differences in the scores of normals versus sexually dysfunctional individuals. Presently, there is no evidence to support the DSFI having predictive or construct validity, yet the authors state they are in the process of demonstrating such.

The DSFI has been utilized in research of impotent patients (Derogatis, Meyer & Dupkin, 1976). It was chosen because it appears to be one of the most thorough, comprehensive, standardized measures of human sexual functioning

developed thus far (Schiavi et al., 1979) which met the needs of the larger investigation.

Arizona Questionnaires. These were separate patient and partner questionnaires that were designed specifically for the larger investigation. The patient version consisted of 18 items, 11 of which were Likert-type items, 4 yes or no items, and 3 open-ended questions. The content of the questions consists of background information, painfulness of surgery, presurgical and postsurgical sexual activity, sexual satisfaction and satisfaction with the prosthesis.

The partner version consists of 8 items, with 2 items on a Likert-type scale, 4 yes or no items, and 2 open-ended questions. This questionnaire was developed to assess the partner's perception of: the success of and satisfaction with the implant, improvement in the marital relationship, a comparison of pre- versus postsurgical coitus, and recommendations to potential implant couples.

Baylor Questionnaires. These are modified versions of questionnaires developed by Schlamowitz et al. (1983) in their study of IPP recipients and their partners. The modification consists of revising some of the questions to make them equally applicable to recipients of noninflatable and inflatable implants. The patient and the partner questionnaires are slightly different forms. There were 30 items on the patient version, 24 items were Likert-type, 1

yes or no item, and 5 open-ended items. The partner questionnaire consisted of 26 items, 18 were Likert-type items, 1 yes or no item, and 7 open-ended questions. Items common to both patient and partner forms included the adequacy of presurgical preparation, appearance of erections, degree of partner participation in decision to have surgery, frequency of sexual activity, marital or sexual satisfaction, partner concern over patient infidelity, and satisfaction with and success of prosthesis. The patient version also included questions regarding postsurgical: medical or mechanical problems, changes in moods, speed of recovery from surgery, frequency of disagreements over sexual concerns and frequency of extramarital sexual contacts. Partners were asked their pre- and postsurgical sexual satisfaction, changes in feelings towards patients, changes in sexual activity, feelings of desirability as a sexual partner, and feelings of importance in the sexual arousal of the patient.

Both of these two sets of questionnaires were evaluated for their reliability via internal consistency procedures. A factor analysis with varimax rotation was performed on these instruments to accomplish this. Neither of these instruments were evaluated for their validity, yet both appear to have face validity. Since minimal research has been conducted on the population of implant recipients

and their sexual partners, especially on their postsurgical psychological, marital and sexual adjustment, there are no standardized instruments available to measure such factors. Hence, such questionnaires have to be created by the investigators. These two sets of questionnaire seem quite applicable to the purposes of both the larger investigation and this proposed study.

#### Data Collection

This investigator was responsible for the data collection in the larger investigation. Each of the 63 couples who indicated they were available and willing to participate in the larger investigation were sent out separate research packets containing the DSFI, Arizona and Baylor questionnaires, during the Summer and Fall of 1982. Seventy-eight percent of the couples ( $n = 49$ ) returned usable portions of the questionnaires within the time limit of the study. A follow-up phone interview was subsequently conducted with each of the 49 men. This was a very good return rate for mailed questionnaires. Kerlinger (1973) reported that 40-50% is the most common return rate and 80% or above is the ideal. The 14 couples who failed to return the questionnaires within the allotted time reported reasons of concern with the personal nature of the questions, not enough time to complete them, family or business pressures that interfered or dissatisfaction with the implant.

All of the 49 couples who were the subjects for this study completed the Arizona and 47 completed the Baylor questionnaires. Only 35 of these couples completed the DSFI. The 14 couples who did not complete it expressed concerns with the DSFI being too long and with the probing nature of the questions. Of these 14 couples, there were 7 couples where neither partner completed the DSFI and another 7 where 1 partner within the couple did complete it. There were 35 couples who completed all three questionnaires.

#### Research Design and Analysis of Data

Research on implant patients and partners has typically been descriptive, retrospective, postsurgical follow-up evaluations. These studies are usually ex post facto designs. The studies are conducted retrospectively for several reasons. One reason is that the surgical implantations are conducted at various points in time as needed by the patients rather than simultaneously or sequentially at the request of the surgeon and/or researcher. Secondly, there is a recovery period of at least six weeks and up to six months for the patient and partner to adjust to receiving the implant. Finally, there are so few men that have received implants compared to the total adult male population, and even fewer of them are willing to be subjects of a research investigation. Researchers of implant patients and partners have tended to use whatever

subjects they can acquire whenever they can get them, even if it is many years after the surgery was performed. It appears that investigators prefer to have knowledge about the implant patient and his partner via retrospective studies rather than no knowledge at all about the postsurgical effects of the implant.

#### Research Design

This has been a retrospective study of data gathered by Beutler et al. (1984, 1986). The research design of this study is a fixed variable, ex post facto design. Because of the retrospective nature of this study, all variables have been treated as correlational. Kerlinger (1973) states that ex post facto investigations probably outnumber experimental studies. Thompson and Walker (1982) suggest that couple correspondence is a viable means of understanding the couple relationship in terms of one partner in relation to another. Hence, this procedure has been chosen to understand the couple's psychological, and sexual adjustment following implantation of a prosthesis and to investigate the correlates of their sexual and implant satisfaction.

#### Independent and Dependent Variables

The two major dependent variables under investigation were investigated for both the implant patient and his sexual partner. Sexual satisfaction was defined by the

sexual satisfaction subtest and the Global Sexual Satisfaction Index of the DSFI (see Table 1). In addition, it was defined by the sexual satisfaction factor for the men on the Arizona questionnaire and for the women on the Baylor questionnaire (see Table 1). Satisfaction with the implant was investigated for the patients and partners via questions regarding the degree of their satisfaction with the implant on the Arizona and Baylor questionnaires (see Table 1). The relationship between sexual satisfaction and satisfaction with the implant was also investigated.

This study investigated the contributors to sexual and implant satisfaction, as defined in three categories of independent or predictor variables--individual adjustment, correspondence on couple's adjustment and type of implant. There are multiple demographic, psychological, marital and sexual adjustment factors, as measured by the DSFI, the Arizona and Baylor questionnaires, that could have been included within the individual adjustment and correspondence on adjustment variables. To preserve power, only those adjustment factors that have shown some correlation to sexual and implant satisfaction were used in this study.

The first category of predictor variables is individual adjustment. This includes the implant patient and his sexual partner's:

Table 1. Variables.

Name of Variable	Instrument	Subtest or Items
Patient Sexual Satisfaction	DSFI	Section X - Sexual Satisfaction GSSI - Global Sexual Satisfaction Index
	Arizona Questionnaire	Questions 12 and 13
Partner Sexual Satisfaction	DSFI	Section X - Sexual Satisfaction GSSI - Global Sexual Satisfaction Index
	Baylor Questionnaire	Question #3
Patient Implant Satisfaction	Baylor Questionnaire	Questions #4-10
Partner Implant Satisfaction	Arizona Questionnaire	Questions #1-3, 5, 6
Sexual Information	DSFI	Section I
Sexual Experience	DSFI	Section II
Sexual Drive	DSFI	Section III
Sexual Attitudes	DSFI	Section IV
Psychological Symptoms	DSFI	Section V

1. psychological states,
2. sexual attitudes and knowledge, and
3. sexual drive and experiences.

Psychological states was defined by the DSFI subtest, psychological symptoms, which is also known as the Brief Symptom Inventory (see Table 1). Sexual attitudes and knowledge was defined by the DSFI subtests, sexual information and sexual attitudes (see Table 1). The DSFI subtests of experience and sex drive defined the variable, sexual drive and experiences (see Table 1). These variables are assumed to be long-standing and relatively stable characteristics.

The second category of predictor variables is couple similarity or correspondence on their adjustment. Similarity between the implant patient and partner was explored for their:

1. psychological states,
2. sexual attitudes and knowledge, and
3. sexual drive and experience.

Correspondence on these factors was accomplished by descriptive procedures. These included frequency counts and distributions. In prior studies that investigated couple correspondence, the procedure utilized was to compute the percentage of partners that agreed with each other on the

factor being investigated (Elwood & Jackson, 1982; Baider & Sarell, 1984). This procedure was used to compute the percentage of couple's reporting absolute agreement on their psychological and sexual adjustment. In addition, couple correspondence was established by taking the absolute difference between the patient and partner scores for each of the psychological and sexual adjustment variables. It was this correspondence score that was then fed into the multiple regression equation.

The third category of predictor variables is type of implant received. Patients in this study received either the inflatable penile prosthesis or one of the noninflatable prostheses (e.g., Small-Carrion, Finney). The specific type of implants that were investigated include men who had received either: the inflatable penile prosthesis (IPP), one of the noninflatable penile prostheses (non-IPP) or the inflatable prosthesis after removal of a noninflatable prosthesis (IPP transfer). These are fixed variables, with the exception of type of implant, such that they are not capable of being experimentally manipulated. Type of implant must be considered a manipulated variable although subjects were not assigned in a random fashion.

#### Analysis of Data

The analysis of the hypotheses consisted initially of bivariate correlations and then multiple regression

procedures. This entailed Pearson product moment bivariate correlations, multiple correlations and stepwise multiple regression techniques. Meyers (1979) describes multiple regression as the investigation of the relationship between a single dependent variable and multiple independent variables. This appeared to be the ideal procedure since the intent of this study has been to investigate the relative contribution of individual adjustment, couple correspondence and type of implant to satisfaction.

#### Limitations of This Study

Kerlinger (1973) cautions investigators planning to use ex post facto designs as to two main limits to such designs. One limitation is that it would not yield causal relationships. Another limitation is that the results and interpretations from such studies must be treated with great care and caution, as far as generalizability. A main reason for the limited generalizability is that it was impossible to randomly assign subjects to treatment and that there was no random selection of subjects as participants in this study. A third limitation is the small number of subjects within this sample. The results of this study can really only be generalized to other implant couples similar in background to these subjects.

## CHAPTER 4

### RESULTS

This study was designed to achieve two purposes: (1) to investigate the degree of correspondence in psychological and sexual adjustment between members of a couple in which the male had received a penile implant; and (2) to assess the relative contribution of the patient's and partner's individual psychological and sexual adjustment, the couple's similarity in estimates of their adjustment, and the type of implant the patient received on the patient's and his partner's implant and sexual satisfaction. It was hypothesized for both the patient and the partner that couple correspondence on adjustment would be the most significant contributor to their implant and sexual satisfaction.

Forty-nine recipients of penile implants and their partners participated in this study. At least six months after surgery, 35 of these couples completed and returned all three questionnaires (the DSFI, Arizona, and Baylor questionnaires).

This chapter consists of the preliminary analysis of the data relative to the hypotheses, the results in terms of

the research hypotheses, and additional findings, which include the assessment of couple correspondence.

#### Preliminary Analysis

A preliminary analysis of the data was undertaken in order to identify the focal constructs of this study and to reduce the number of separate data points comprising these independent and dependent variables. The derived factors that were targeted in this study consisted of: psychological symptoms, sexual drive, sexual satisfaction, partner sexual frequency satisfaction, and implant satisfaction. Data reduction was originally undertaken in the Beutler et al. (1984, 1986) investigations to reduce the amount of item overlap and increase the reliability of the patient's and partner's scores. This procedure consisted of subjecting each of the three questionnaires to a principal components analysis with varimax rotation. In this way, all items on each instrument were evaluated for the degree to which they measured a set of common dimensions. In turn, those factors that most closely and clearly were composed of items of relevance to the constructs to be investigated in this study were extracted for further analysis.

For each instrument, the multiple items were combined into the smallest number of stable factor scores, which accounted for the maximum variation among subject's responses. The determination of each factor was completed

once the addition of an item failed to add 5% to the amount of the variance accounted for. Not all of the factors that were derived from these procedures were relevant to the hypotheses of this study and hence were not utilized.

The data reduction procedures performed on the DSFI yielded five factors. These factors accounted for 70 percent of the total variance in patient response and 74 percent of the variance among partners. Only three of these factors were relevant to the hypotheses of this study, and, in turn, utilized: psychological symptoms, sexual drive and sexual satisfaction. The psychological symptoms factor consisted of the composite score of Section V of the DSFI, entitled Global Symptom Intensity. The sexual drive factor was an average score for the sexual drive (Section III) and experience (Section II) subscales. These scales had a correlation of .54 for the patients and .71 for the partners ( $p < .001$ ). This factor analysis was performed only on the individual scores and not on the correspondence scores, since correspondence was not a factor in the original, Beutler et al. studies (1984, 1986).

The data reduction procedure as applied to the Arizona questionnaire, resulted in four factors that accounted for 63 percent of the total variance for the patient, and one factor which accounted for 75 percent of the total variance for the partners. Only one of the

patient factors was relevant to the purposes of this study: sexual satisfaction. The partner factor was satisfaction with the implant.

The Baylor questionnaire was reduced to six factors for the patient and five factors for the partner. These factors accounted for 73 percent of the total variance among patient responses and 76 percent of the variance among partners. The single patient factor relevant to this study was satisfaction with the implant. Likewise, only one partner factor was relevant--sexual frequency satisfaction.

In addition to the data reduction procedure conducted on each instrument, a preliminary analysis of the resulting factor scores was undertaken to demonstrate the independence of each of the constructs, across instruments. This was accomplished by creating a correlational matrix of each independent variable with each other. Likewise, a correlational matrix was created for the dependent measures which served the additional purpose of discriminating which of the possible eight measures for sexual satisfaction would be most representative of this construct.

Upon inspection of Table 2, it can be seen that some of these predictor variables are independent constructs, while other variables seem to be interrelated. For the purpose of this study, it was decided to accept the assumption of independence if the relationship between the

Table 2. Intercorrelations of predictor variables

Predictor Variables	Predictor Variables													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Individual Adjustment														
Psychological symptoms														
1. Patient	1.00	.15	-.01	.06	-.32	-.12	.07	.08	.17	-.13	-.19	.05	-.36	.18
2. Partner		1.00	-.11	-.03	-.17	-.19	.04	.06	.68**	.20	.20	.05	.11	.23
Sexual attitudes														
3. Patient			1.00	.56**	.44*	.32	.70**	.40	.23	.24	.38	.54*	-.39	.20
4. Partner				1.00	.24	.44*	.16	.37	.18	-.13	-.08	.26	-.17	.33
Sexual information														
5. Patient					1.00	.63**	.44*	.45*	-.08	.12	.09	.23	-.24	.23
6. Partner						1.00	.25	.48*	-.10	.09	.02	.22	-.07	.19
Sexual drive plus experience														
7. Patient							1.00	.48*	.23	.46*	.46*	.63**	-.28	.26
8. Partner								1.00	.25	.03	-.04	.46*	.32	.21

Table 2--Continued

Predictor Variables	Predictor Variables													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Couple correspondence														
9. Psychological symptoms									1.00	.19	.27	.36	-.08	.35
10. Sexual attitudes										1.00	.79**	.57**	.20	.20
11. Sexual drive											1.00	.54*	.03	.24
12. Sexual experience												1.00	-.05	.19
13. Sexual information													1.00	.29
14. Type of implant <sup>+</sup>														1.00

\* p < .01

\*\* p < .001

+ For type of implant, these are ETA rather than r values.

variables did not reach significance at the  $p < .01$  level. The predictor variables that appeared to be independent of the other constructs included patient's and partner's psychological symptoms, the couple's correspondence on their psychological symptoms, and sexual information as well as type of implant. The only exception to this observation was the significant relationship that existed between partner's psychological symptoms and the couple's correspondence on their psychological symptoms ( $r = .68, p < .001$ ).

Several of the individual sexual adjustment variables were significantly interrelated. Intercorrelations of the patient's sexual attitudes, sexual information, and sexual drive yielded significant correlations which ranged from .44 to .70 ( $p < .01$ ). The relationship between the patient's sex drive and attitudes was quite strong ( $r = .70$ ). These same adjustment variables for the partners yielded lower correlations ( $r = .37$  to  $.48$ ), with all but one combination of variables yielding a significant relationship at the .01 level. These moderate correlations seem to indicate that these sexual adjustment factors are measuring very similar constructs and do not appear to be independent of one another.

The intercorrelations among the individual sexual adjustment variables and the couple's correspondence on the sexual adjustment factors yielded for both the patients and

the partners a mixture of independent and redundant constructs. For the patient, there appeared to be redundancy of constructs within the relationships between his sexual drive plus experience, and the couple's correspondence on their sexual attitudes, drive, and experience. These correlations ranged from .46 to .63 ( $p < .01$ ). The significant relationship between the patient's sexual attitudes and the couple's correspondence in sexual experience ( $r = .54$ ,  $p < .01$ ) appeared redundant. There was a significant relationship between the women's sexual drive and the couple's correspondence on their sexual experience ( $r = .46$ ,  $p < .01$ ), which indicated lack of independence in these constructs. For the rest of the intercorrelations between the patient's and partner's individual sexual adjustment, there was independence of constructs.

Upon intercorrelating the several correspondence factors which each other, it was found that there was a combination of independent and redundant constructs. As mentioned previously, two of the correspondence factors, psychological symptoms and sexual information, were independent constructs from each other. On the other hand, intercorrelations performed on the correspondence variables of sexual attitudes, drive, and experience yielded correlations ranging from .54 to .79 ( $p < .01$ ), which indicates moderate levels of redundancy. The strongest relationship

existed between correspondence on sexual drive and attitudes ( $r = .79, p < .001$ ). Since the intercorrelation for correspondence on sexual drive and experience was only .54 ( $p < .01$ ) compared to the higher intercorrelations among the other correspondence variables, it was decided not to collapse sexual drive and experience into one factor as was done for individual adjustment. These moderate to high correlations indicated that correspondence on sexual attitudes, drive and experience were measuring quite similar constructs.

In summary, the preliminary analysis of the predictor variables resulted in establishing independence across categories for most of the variables (adjustment, correspondence, and type of implant) and revealed moderate amounts of redundancy within the adjustment and correspondence categories of variables.

The next step in the preliminary analysis was to intercorrelate the dependent measures. The results of this preliminary analysis of intercorrelating implant and sexual satisfaction are presented in Table 3. This analysis consisted of intercorrelating each of the ten original dependent factors with one another. The purpose of this analysis was to establish the most reliable measures of implant and sexual satisfaction and to demonstrate independence among these constructs. In addition, the amount of

Table 3. Intercorrelations of dependent variables.

Predictor Variables	Dependent Variables									
	1	2	3	4	5	6	7	8	9	10
Implant satisfaction										
1. Patient	1.00	.41**	.49***	.37*	.34*	.38*	.34*	.51**	.51**	.58**
2. Partner		1.00	.74***	.45**	.43**	.48**	.54***	.65***	.43**	.58**
Sexual satisfaction										
Patient										
3. Arizona questionnaire DSFI:			1.00	.45**	.43**	.50**	.41**	.63***	.49**	.61***
4. GSSI				1.00	.75***	.96***	.41**	.86***	.78***	.89***
5. Satisfaction					1.00	.91***	.48**	.62***	.67***	.71***
6. Combined factor						1.00	.46**	.84***	.80***	.89***
Partner										
7. Baylor questionnaire DSFI:							1.00	.27	.41**	.38*
8. GSSI								1.00	.66***	.91***
9. Satisfaction									1.00	.91***
10. Combined factor										1.00

\* p < .05

\*\* p < .01

\*\*\* p < .001

common variance among the dependent measures was established by computing the mean value of the intercorrelations for each dependent measures with the other dependent measures. These results are presented in Table 4.

The intercorrelations of implant to sexual satisfaction measures yielded low to moderate correlations for the patients (from .34 to .58;  $p < .05$ ) and partners (from .43 to .74;  $p < .01$ ). The mean values of the intercorrelations for the patients were .40 ( $p < .05$ ) and for the partners .55 ( $p < .01$ ). Such results indicate that there were low levels of overlap for the patients and moderate levels of overlap among the constructs, reflecting implant and sexual satisfaction for the partners. Because the patient's implant satisfaction was an independent construct from the patient's sexual satisfaction, it was decided to use implant satisfaction as a separate factor for both the patient and his partner.

The results of intercorrelating the sexual satisfaction measures for the patient revealed moderate to high correlations ranging from .43 to .96 ( $p < .01$ ). The patient's sexual satisfaction measure from the Arizona questionnaire yielded lower correlations with the DSFI sexual satisfaction measures (range was from .43 to .50;  $p < .01$ ) than when the DSFI measures were correlated amongst themselves (range was from .75 to .96;  $p < .001$ ). The mean

Table 4. Mean of the intercorrelations for dependent variables.

Dependent Variables	$\bar{X}$ of the Intercorrelations
Implant satisfaction	
1. Patient	.40*
2. Partner	.55**
Patient sexual satisfaction	
3. Arizona questionnaire	.47**
DSFI:	
4. GSSI	.63***
5. Satisfaction	.61***
6. Combined factor	.69***
Partner sexual satisfaction	
7. Baylor questionnaire	.40*
DSFI:	
8. GSSI	.62***
9. Satisfaction	.60***
10. Combined factor	.70***

\* p &lt; .05

\*\* p &lt; .01

\*\*\* p &lt; .001

values of these intercorrelations on sexual satisfaction for the patient were .47 ( $p < .01$ ) for the Arizona questionnaire, .63 ( $p < .001$ ) for the GSSI, .61 ( $p < .001$ ) for the sexual satisfaction subtest, and .69 ( $p < .001$ ) for the combined sexual satisfaction factor on the DSFI. Although there was similarity between the Arizona and DSFI sexual satisfaction measures, they also seem to be measuring somewhat different aspects of sexual satisfaction since the mean value of intercorrelation for the Arizona questionnaire was so much lower and less significant than the intercorrelations of the other measures. It was for this reason that it was decided to use the patient's sexual satisfaction factor from the Arizona questionnaire as one measure of sexual satisfaction. Since the correlation for the two DSFI patient sexual satisfaction measures, sexual satisfaction and GSSI, was .75 ( $p < .001$ ), it was decided to use them as the combined sexual satisfaction factor that was created via the aforementioned factor analysis procedures.

The outcome of intercorrelating the sexual satisfaction measures for the partner was similar to that of the patient's results. The intercorrelations for the partner's sexual satisfaction via the Baylor questionnaire versus the DSFI subtests yielded low to moderate correlations ( $r = .27$  to  $.41$ ). On the other hand, the correlation between the two DSFI sexual satisfaction subtests was .66

( $p < .001$ ). The mean values of the intercorrelations on sexual satisfaction for the partner consisted of .40 ( $p < .05$ ) for the Baylor questionnaire, .62 ( $p < .001$ ) for the GSSI, .60 ( $p < .001$ ) for the sexual satisfaction factor on the DSFI. These low to moderate correlations indicated that the Baylor questionnaire measured a different aspects of the partner's sexual satisfaction from the DSFI and, in turn, it was decided to use the sexual frequency satisfaction factor from the Baylor questionnaire as a separate factor. As was done with the patient, it was decided to use the combined sexual satisfaction factor from the DSFI for the partner since the correlation between the two subtests was moderately high ( $r = .66$ ,  $p < .001$ ).

In summary, as a result of the preliminary analysis of the data, the number of dependent measures has been reduced from ten to six factors. For both the patients and partners, there is one implant satisfaction factor and two sexual satisfaction factors.

#### Results and Additional Findings

The data were analyzed in four steps to test the primary hypotheses. The first step, the preliminary analysis, has already been described and performed. The next step was a bivariate correlational analysis that was performed to examine the strength of the relationships between the dependent and predictor variables. Then,

multiple regression procedures were used to test separately the relative contribution of each predictor variable within each category of individual adjustment, couple correspondence, and type of implant to the dependent variables. The final step in the analysis was to use stepwise multiple regression procedures by entering all three categories of predictor variables simultaneously to establish which predictor variable contributes the most to the dependent measures. These latter three steps will be followed in the reporting of the results for both hypotheses.

The criterion values used in the stepwise multiple regression procedures consisted of the variable with the smallest probability of F being examined for entry against a criterion value of .05. A variable would default and be removed from the equation if it did not meet a criterion value of .10.

#### Hypothesis 1

This hypothesis stated that the patient's implant and sexual satisfaction would be more strongly related to couple correspondence on adjustment than to individual adjustment or to the type of implant. The result of the bivariate correlational analysis are reported in Table 5. The patient's implant satisfaction was significantly related to only the type of implant ( $r = .41, p < .05$ ). The patient's sexual satisfaction as measured by the Arizona

Table 5. Intercorrelations of predictor and dependent variables.

Predictor Variables	Dependent Variables									
	Implant Satisfaction 1. Patient	2. Partner	Sexual Satisfaction Patient 3. Arizona Questionnaire	DSFI: 4. GSSI	5. Satisfaction	6. Combined Factor	Partner 7. Baylor Questionnaire	DSFI: 8. GSSI	9. Satisfaction	10. Combined Factor
Individual adjustment										
Psychological symptoms										
1. Patient	-.06	.03	-.11	.01	-.06	-.05	-.29*	.19	-.01	.14
2. Partner	.23	.01	-.07	-.00	.11	.06	.17	-.02	-.15	-.01
Sexual attitudes										
3. Patient	-.07	.31*	.26	-.07	-.11	-.10	-.03	.13	.01	.02
4. Partner	-.14	.25	.07	.00	-.20	-.08	-.15	.16	-.22	-.03
Sexual information										
5. Patient	-.16	-.05	.09	-.07	-.11	-.10	-.00	.09	-.03	.07
6. Partner	-.16	.41*	.39*	.10	.04	.07	.12	.27	-.10	.14

Table 5--Continued

Predictor Variables	Dependent Variables														
	Implant Satisfaction	1. Patient	2. Partner	Sexual Satisfaction Patient	3. Arizona Questionnaire	DSFI:	4. GSSI	5. Satisfaction	6. Combined Factor	Partner	7. Baylor Questionnaire	DSFI:	8. GSSI	9. Satisfaction	10. Combined Factor
Sexual drive plus experience															
7. Patient	.08	.19	.32*	-.01	-.09	-.07	-.09	.12	.13	.11					
8. Partner	-.03	.24	.39*	-.09	-.00	-.03	.09	.25	-.11	.12					
Couple correspondence															
9. Psychological symptoms	.08	.09	.15	-.28	-.17	-.25	-.16	-.00	-.15	-.04					
10. Sexual attitudes	-.12	.02	.10	-.12	-.02	-.05	-.08	-.09	-.08	-.03					
11. Sexual information	.10	-.25	-.09	.00	.32*	.08	.12	-.08	.07	.99					
12. Sexual drive	-.27	-.06	.01	-.31	-.25	-.28	-.15	-.26	-.23	-.23					
13. Sexual experience	-.09	.14	.26	-.20	-.11	-.14	-.27	.19	-.09	.09					
14. Type of implant	.41*	.43*	.54***	.43	.18	.40	.27	.50*	.25	.45					

\* p < .05  
 \*\* p < .01  
 \*\*\* p < .001

questionnaire was moderately correlated with several adjustment factors and to the type of implant ( $r = .54$ ,  $p < .001$ ). The individual adjustment factors significantly related to sexual satisfaction consisted of the patient's sexual drive plus experience ( $r = .32$ ,  $p < .05$ ), the partner's sexual information ( $r = .39$ ,  $p < .05$ ), and her sexual drive plus experience ( $r = .39$ ,  $p < .05$ ). The DSFI sexual satisfaction factor was not significantly related to any of the predictor variables.

The results of the multiple regression analysis for the patient with each separate category of predictor variables are presented in Tables 6 and 7. The multiple variables of individual adjustment were correlated with the patient's implant and sexual satisfaction, and the only significant findings consisted of the correlation between sexual satisfaction, as measured by the Arizona questionnaire, and partner's sexual information scores [ $F(1,30) = 5.41$ ;  $p < .05$ ]. The partner's sexual information accounted for 15% of the variance in the patient's sexual satisfaction. No other individual adjustment variable contributed beyond this. When entering just the couple correspondence variables into the regression analysis, no significant contributor to the patient's implant or sexual satisfaction was observed. In contrast, when entering type of implant into the regression analysis, type of implant was

Table 6. Results of the stepwise multiple regression analysis predicting patient's sexual satisfaction from individual adjustment.

Step Entered	Multiple R	R <sup>2</sup>	Beta	F
Partner's sexual information	.39	.15	.39	5.41*

\*  $p < .05$

Table 7. Results of the stepwise multiple regression analysis predicting patient's sexual satisfaction from type of implant.

Step Entered	Multiple R	R <sup>2</sup>	Beta	F
Arizona questionnaire				
Type of implant	.51	.26	-.51	10.57*
DSFI				
Type of implant	.40	.16	-.40	4.45*

\* p < .05

significantly related to implant satisfaction and to both of the sexual satisfaction factors. The noninflatable implant was negatively correlated with implant satisfaction [ $F(1,44) = 8.80$ ;  $p < .01$ ] and accounted for 17% of the variance in implant satisfaction. Similarly, the noninflatable implant was negatively correlated with sexual satisfaction, as measured by the Arizona questionnaire [ $F(1,46) = 16.80$ ;  $p < .001$ ] and the DSFI [ $F(1,29) = 5.61$ ;  $p < .05$ ] and accounted for 26% and 16% of the variance in sexual satisfaction, respectively. Those patients who had the noninflatable implants experienced less sexual and implant satisfaction than those patients with the IPP.

Tables 7-9 present the results of the multiple regression analysis when all three categories of predictor variables were included in the equation for predicting sexual and implant satisfaction. Type of implant was the strongest, significant predictor of patient implant satisfaction [ $F(1,30) = 6.00$ ;  $p < .05$ ], accounting for 17% of the variance in implant satisfaction. Couple correspondence on sexual drive also proved to be significantly related to implant satisfaction once the type of implant was controlled [ $F(2,29) = 5.42$ ;  $p < .05$ ], and added another 10% to the shared variance in implant satisfaction.

Type of implant also proved to significantly predict both the Arizona [ $F(1,30) = 10.57$ ;  $p < .01$ ] and DSFI

Table 8. Results of the stepwise multiple regression analysis predicting patient's implant satisfaction from type of implant, couple correspondence, and individual adjustment.

Step Entered	Multiple R	R <sup>2</sup> Change	R2	Beta	F
Type of implant	.41	.17	-	-.41	6.00*
Couple correspondence on sexual drive	.52	.27	.10	-.33	5.42*

\* p < .05

Table 9. Results of the post hoc stepwise multiple regression analysis predicting patient's sexual satisfaction from type of implant, couple correspondence, and individual adjustment.

Step Entered	Multiple R	R <sup>2</sup>	R <sup>2</sup> Change	Beta	F
Type of implant	.42	.18	-	-.42	4.97*
Couple correspondence					
Sexual drive	.56	.32	.14	-.38	5.09*
Sexual attitudes	.67	.45	.13	-.61	5.61*

\* p < .05

[ $F(1,23) = 4.45; p < .05$ ] measures of sexual satisfaction. For sexual satisfaction as measured by the Arizona questionnaire, type of implant accounted for 26% of the variance. The type of implant accounted for 16% of the variance for the DSFI sexual satisfaction factor.

Some interesting results were found by completing a post hoc analysis of the data to ascertain the strength of the relationships of each of the sexual satisfaction subtests that comprise the DSFI factor with type of implant. No significant relationship was found between type of implant and the patient's satisfaction subtest scores. In contrast, not only was type of implant a significant predictor of the patient's GSSI scores [ $F(1,23) = 4.97; p < .05$ ] but so was correspondence on sexual drive [ $F(2,22) = 5.09; p < .05$ ] and correspondence on sexual attitudes [ $F(3,21) = 5.61; p < .01$ ]. Type of implant accounted for 18% of the variance on this measure of sexual satisfaction, with correspondence on sexual drive accounting for an additional 14% of the variance and correspondence on sexual attitudes accounting for another 13% of the variance beyond these other predictor variables.

This hypothesis was not supported by these findings since the hypothesis stated that correspondence would be the most significant contributor to the patient's sexual and implant satisfaction. Type of implant was the most

significant predictor of both implant and sexual satisfaction. Correspondence was a significant predictor of both implant and sexual satisfaction, yet it contributed less to the variance than did type of implant. On the other hand, individual adjustment did not significantly contribute to implant or sexual satisfaction above and beyond the contributions of the other predictor variables.

#### Hypothesis 2

This hypothesis stated that the partner's implant and sexual satisfaction would be more strongly related to couple correspondence on their psychological and sexual adjustment than to individual adjustment or to the type of implant. The results of the bivariate correlational analysis are reported in Table 5 (p. 108). Implant satisfaction for the partner was significantly related to the patient's sexual attitudes ( $r = .31, p < .05$ ), the partner's sexual information ( $r = .41, p < .05$ ), and type of implant ( $r = .43, p < .05$ ). The partner's sexual frequency satisfaction as measured by the Baylor questionnaire was significantly correlated with only the patient's psychological symptoms ( $r = .29, p < .05$ ). The DSFI sexual satisfaction factor was not significantly related to any of the predictor variables.

The significant results of the multiple regression analysis for the partner's implant and sexual satisfaction

with each separate category of predictor variables are presented in Tables 10 and 11. The individual adjustment variables were correlated with the partner's implant and sexual satisfaction. The findings are reported in Table 10 and consist of significant correlations between the partner's implant satisfaction and the partner's sexual information [ $F(1,28) = 5.61; p < .05$ ], the patient's sexual information [ $F(2,27) = 6.37; p < .01$ ], and the patient's sexual attitudes [ $F(3,26) = 6.73; p < .01$ ]. The partner's sexual information was the strongest individual adjustment factor related to implant satisfaction, accounting for 17% of the variance, with the patient's sexual information accounting for additional 15% of the variance and the patient's sexual attitudes contributing another 12% of the variance. No other individual adjustment factor contributed to the partner's implant satisfaction beyond this. Within the individual adjustment factors none of them were found to significantly contribute to partner's sexual satisfaction. When entering just the couple correspondence factors into the regression analysis, no significant contributor to the partner's implant or sexual satisfaction was found. In contrast, as reported in Table 12, when entering type of implant into the regression analysis, type of implant was significantly related to implant satisfaction and sexual satisfaction as measured by the DSFI. The partner's implant

Table 10. Results of the stepwise multiple regression analysis predicting partner's implant satisfaction from individual adjustment.

Step Entered	Multiple R	R <sup>2</sup>	R <sup>2</sup> Change	Beta	F
Partner's sexual information	.41	.17	-	.70	5.61*
Patient's sexual information	.57	.32	.15	.66	6.37**
Patient's sexual attitudes	.66	.44	.12	.38	6.73**

\*  $p < .05$

\*\*  $p < .01$

Table 11. Results of the stepwise multiple regression analysis predicting partner's implant and sexual satisfaction from type of implant.

Step Entered	Multiple R	R <sup>2</sup>	Beta	F
Implant satisfaction				
Type of implant	.43	.19	-.43	8.94**
Sexual satisfaction (DSFI)				
Type of implant	.45	.20	-.45	6.81*

\*  $p < .05$

\*\*  $p < .01$

satisfaction was negatively correlated with the noninflatable implant [ $F(1,39) = 8.94; p < .01$ ] and accounted for 19% of the variance. Likewise, the noninflatable implant was negatively correlated with the partner's sexual satisfaction [ $F(1,27) = 6.81; p < .05$ ] and accounted for 20% of the variance in sexual satisfaction. Type of implant did not significantly contribute to the partner's sexual frequency satisfaction as measured by the Baylor questionnaire. Those women whose male partners had the noninflatable implant experienced less implant and sexual satisfaction than the women whose male partners had the IPP. On the other hand, it appeared that there was no difference in the female groups on their sexual frequency satisfaction.

The results of the stepwise multiple regression analysis when all three categories of predictor variables are included in the equation for predicting implant and sexual satisfaction are reported in Table 12. Type of implant was the strongest contributor and the only significant predictor of both the partner's implant and sexual satisfaction. As a significant predictor of partner implant satisfaction, type of implant [ $F(1,26) = 5.96; p < .05$ ] accounted for 19% of the variance in implant satisfaction. Similarly, type of implant significantly predicted partner's sexual satisfaction, as measured by the DSFI [ $F(1,25) = 6.31; p < .05$ ] and accounted for 20% of the variance in

Table 12. Results of the stepwise multiple regression analysis predicting partner's implant and sexual satisfaction from type of implant, couple correspondence, and individual adjustment.

Step Entered	Multiple R	R2	Beta	F
Implant satisfaction				
Type of implant	.43	.19	-.43	5.96*
Sexual satisfaction (DSFI)				
Type of implant	.45	.20	-.45	6.31*

\*  $p < .05$

sexual satisfaction. In contrast, type of implant was not able to significantly predict the partner's sexual frequency satisfaction. Neither individual adjustment nor couple correspondence were able to make any significant contributions to the partner's implant and sexual satisfaction above and beyond that of type of implant, even upon completion of a post hoc analysis of the data.

Hypothesis 2 was not supported by these findings, since it stated that couple correspondence would be the most significant contributor to the partner's implant and sexual satisfaction. The results showed that type of implant was the strongest and only significant predictor of both implant and sexual satisfaction. Individual adjustment and couple correspondence did not significantly contribute to the partner's implant or sexual satisfaction above and beyond type of implant. And none of the predictor variables made any significant contribution to sexual frequency satisfaction.

#### Additional Findings

This section addresses the purpose of this study having to do with the degree of couple correspondence on their psychological and sexual adjustment. The frequency distributions of couple correspondence are reported in Table 13. The couple correspondence scores represent the absolute difference between the patient's and partner's

Table 13. Frequency distribution of couple correspondence on their psychological and sexual adjustment.

Couple Correspondence Variables	% Total Agreement	$\bar{X}$	S.D.	Median	Kurtosis	S.E. Kurtosis	Skewness	S.E. Skewness
Psychological symptoms	2.94	8.91	7.67	7.00	1.7	1.95	1.4	.40
Sexual attitudes	8.80	7.21	6.10	6.50	1.34	1.96	1.10	.40
Sexual drive	3.00	5.64	5.97	4.00	1.80	1.95	1.53	.41
Sexual experience	33.30	6.91	8.16	3.00	-.67	1.95	.91	.41
Sexual information	17.60	6.85	6.03	5.50	-.21	1.96	.79	.40

scores on each adjustment factor. Hence, a score of zero means total correspondence, and the lower the couple's score the greater their correspondence.

The percentage of couples in total agreement on their psychological and sexual adjustment is rather low. The range for total correspondence was as low as 2.94 percent of the couples in total agreement on their psychological symptoms and as great as 33.3 percent of the couples in total agreement on their sexual experience. Correspondence on sexual information (17.6%) was the only other adjustment factor where more than 10 percent of the couples were able to reach total agreement. Couples were more likely to be in total agreement on their sexual experience and sexual information than they were on their sexual drive, psychological symptoms, or sexual attitudes.

Upon inspection of the frequency distributions of the couple's correspondence on their adjustment, a different pattern emerges. Of the five adjustment factors, correspondence on sexual drive has the lowest mean ( $M = 5.64$ ,  $S.D. = 5.97$ ), and correspondence on psychological symptoms the highest ( $M = 8.91$ ,  $S.D. = 7.67$ ). Couple correspondence on sexual experience has the lowest median (3.00) of the sexual adjustment factors and then correspondence on sexual drive (4.00). Correspondence on psychological symptoms also has the highest median (7.00). It appears that correspondence

is greater for couples on their sexual drive and sexual experience than on their sexual information, their sexual attitudes, or their psychological symptoms.

To summarize the results, the hypotheses were not supported, but instead it was found that type of implant was the single greatest contributor to implant and sexual satisfaction. It was found that for the patient, correspondence on sexual drive also contributed to his implant satisfaction, and correspondence on sexual drive and sexual attitudes additionally contributed to one of the sexual satisfaction measures (the GSSI subtest of the DSFI). For the sexual partners it appears that no other predictor variable contributed to their implant and sexual satisfaction above and beyond type of implant. An additional finding was that these 35 couples tended to correspond more on sexual experience and sexual drive than sexual attitudes, sexual information, or psychological symptoms.

## CHAPTER 5

### DISCUSSION AND CONCLUSIONS

The hypotheses of this investigation proposed that implant patient's and sexual partner's implant and sexual satisfaction would be more strongly related to couple similarity of psychological and sexual adjustment than to estimates of either of the individual's adjustment alone or to the type of implant the patient received. These hypotheses were not supported by the findings of this study. Type of implant was the most significant contributor to implant and sexual satisfaction of the variables studied. In addition, couple correspondence on sexual drive significantly contributed both to the patient's implant and sexual satisfaction, and correspondence on couple's sexual attitudes contributed to the patient's sexual satisfaction. An additional finding was that the implant couples corresponded more on their sexual experience and sexual drive than on their sexual information, sexual attitudes, or psychological symptoms.

This chapter consists of a discussion of conclusions about these results, including implications of these findings and suggestions for further research.

## Discussion

### Sexual Satisfaction

Little seems to be known about the correlates of sexual satisfaction for the average man and woman. Kaplan (1974) has observed that a person's sexual satisfaction is related to such factors as sex appeal, open communication about sexual matters between partners, and accurate sexual knowledge. Farley and Davis (1980) found that similarities in personality traits of the man and woman contribute to their sexual satisfaction, while Perlman and Abramson (1982) found that there appears to be a significant, positive relationship between sexual frequency and sexual satisfaction. Among recipients of penile implants, however, the only correlates of sexual satisfaction which have been observed have been the type of implant (Hollander & Diokno, 1984; Beutler et al., 1984; Beutler et al., 1986) and the etiology of the erectile dysfunction (Subrini, 1982).

The results of this investigation were similar to the findings of both Hollander and Diokno (1984) and Beutler et al. (1984, 1986). These studies conclude that the type of implant is significantly related to sexual satisfaction. Patients receiving the IPP, as well as their partners, report greater sexual satisfaction than the non-IPP recipients and their partners. These results contradict the findings of Smith et al. (1979). They concluded that there

is no difference in sexual satisfaction between recipients of the IPP and the Small-Carrion implant. This may have been a spurious conclusion, however, since there was only one recipient of the Small-Carrion device in this latter study.

The present investigation took the analysis of the relationship between sexual satisfaction and type of implant a step further than previous studies. As a result, it was found that type of implant was a greater contributor to both the patient's and partner's sexual satisfaction compared to either partner's individual adjustment or couple similarity of adjustment.

Among implant recipients there were multiple factors, in addition to type of implant, which were significantly related to sexual satisfaction. These factors were similar to those found in prior research. The results of the bivariate correlational analysis between the patient's sexual satisfaction, as measured by the Arizona questionnaire, and the predictor variable of individual adjustment, showed that sexual satisfaction was significantly related to the patient's and partner's sexual drive plus experience and the partner's sexual information. One conclusion that can be drawn from these results is that as the patient and sexual partner increase in their sexual drive and experience, the patient is likely to become more sexually

satisfied. Another conclusion is that as the partner gains more information about sex, the patient will probably become more satisfied sexually.

These findings on the relationship between sexual satisfaction and sexual drive plus experience is similar to findings by Murstein (1974), Perlman and Abramson (1982), and Birchler and Webb (1977). Murstein found that as the male's sex drive increased his marital satisfaction decreased, and as his partner's sex drive increased his marital satisfaction increased. It is not clear if the difference in the findings regarding the impact of the male's sex drive upon satisfaction is due to the different population being sampled, differences in operationalizing the dependent variables, or differences in the constructs assessed (sexual versus marital satisfaction). Both investigations confirm that male partner's sexual and marital satisfaction is related to female partner's sexual drive.

Prior research also has shown a relationship between sexual frequency and both sexual and marital satisfaction. Perlman and Abramson (1982) found that there was a significant positive relationship between the couple's sexual satisfaction and their sexual frequency. Birchler and Webb (1977) found a significant positive relationship between marital satisfaction and sexual frequency. The sexual drive factor in this study was comprised of several

items that measure the frequency of the subject's sexual activities. Even though no presurgical assessment of sexual frequency was conducted on these subjects, it is quite likely that these men have increased in their sexual frequency following surgery since erectile dysfunction usually severely curtails sexual frequency. Based on this assumption, one might conclude that from the results of this study there may also be a relationship between the patient's sexual satisfaction and the couple's sexual frequency.

The finding that the patient's sexual satisfaction is significantly related to his partner's level of sexual knowledge partially confirms Kaplan's (1974) assertion that sexual satisfaction is related to accurate sexual knowledge. However, the patient's sexual information scores were unrelated to his own sexual satisfaction. Likewise, sexual information of the patient and partner was not related either to the partner's sexual satisfaction or to her sexual frequency satisfaction. It appears that for this population, the sexual information available to the partner is only related to the patient's sexual satisfaction.

The post hoc analysis of the data revealed that one of the patient's sexual satisfaction measures was found to be significantly related to couple correspondence on sexual drive and sexual attitudes. This finding of the current study on the relationship between sexual satisfaction and

correspondence on sexual drive is just the opposite of Murstein's (1974) aforementioned results on the relationship between a male's marital satisfaction and the sexual drive of the male and female members of a couple. These contradictory findings may be due to different subjects, different dependent variables, and/or variation among instruments. For implant patients, these results indicate that similarity rather than divergence in sexual drive may be a better predictor of sexual satisfaction.

Objective value consensus has been found to be related to marital satisfaction (Coombs, 1966). Beutler (1971) reported that value convergence occurred as a result of marital therapy. In the present study, correspondence of sexual attitudes contributed significantly to the patient's sexual satisfaction. This finding is consistent with these prior findings. On the other hand, couple correspondence on sexual attitudes did not contribute to the partner's sexual satisfaction in this study. These latter results suggest that similarity in sexual values within a couple could be related to sexual satisfaction of nonimplant males, but not necessarily for their partners. Further studies are needed to investigate the relationship between sexual satisfaction and similarity in sexual values for nonimplant couples. In addition, the sexual values of implant couples could be

measured before and after surgery to investigate if values converge as a result of the surgical treatment of impotence.

Farley and Davis (1980) found that a similarity in personality traits contributed to the sexual satisfaction of men and women. Such a relationship was not found to be true in this study. The only significant relationship found was between the partner's sexual frequency satisfaction and the patient's level of psychological symptoms and this relationship was in the negative direction. In other words, as the patient's symptoms decreased the partner experienced greater satisfaction with their sexual frequency. Neither the partner's psychological adjustment nor the couple's similarity on dimensions of psychological adjustment contributed to either the patient's or partner's sexual satisfaction. This study probably did not obtain the same results as Farley and Davis because of differences in the constructs being investigated. Psychological symptoms were more reliant on state factor, and personality was more reliant on trait factor. It is recommended that future implant studies investigate the relationship between similarities in personality traits within the couples and their subsequent sexual satisfaction.

In summary, this study found that the greatest contributor to the implant patient's and his partner's sexual satisfaction was the type of implant received. The

sexual satisfaction of implant patients was also found to be related to (1) the individual adjustment factors of the patient's and the partner's sex drive plus experience, (2) the partner's sexual knowledge, and (3) the couple similarity of sexual drive and sexual attitudes. These results are quite different from those obtained with partners. The partner's sexual satisfaction was not related to any other predictor variable other than type of implant. And the partner's sexual frequency satisfaction was related only to the patient's psychological adjustment.

The differences between the correlates of sexual satisfaction for the patient and partner may be due in part to differences in instrumentation and in part to inherent differences between the sexes. The questions comprising the patient's Arizona questionnaire may be sufficiently different from those questions that comprised the partner's Baylor questionnaire ( $r = .41$ ,  $p < .01$ ) to account for different findings on sexual satisfaction for the patient and partner.

Some inherent differences between the sexes may also explain why these men and women differed as to the correlates of their sexual satisfaction. When the instrument utilized is identical for both sexes, as was the case for the DSFI measures of sexual satisfaction, any difference in results is probably due to differences between

these men and women as to what is sexually satisfying to them. In addition to type of implant, the patient's sexual satisfaction was also related to correspondence on sexual drive and sexual attitudes, yet the partner's sexual satisfaction was only related to type of implant. This is not to say that the partner's sexual satisfaction is unrelated to all other factors. Barbarch and Levine (1981) found that women regard the emotional relationship with their partner as the most important element in a good sexual experience. This study did not investigate the relationship between the partner's sexual satisfaction and the couple's emotional relationship. This factor might have contributed to the partner's sexual satisfaction, had it been measured. It is recommended that future studies investigate this relationship between the partner's sexual satisfaction and the couple's emotional relationship for both implant and nonimplant couples. One strategy would be to compare the correlates of sexual satisfaction for healthy couples, couples experiencing a sexual dysfunction, and couples experiencing marital distress.

#### Implant Satisfaction

Implant satisfaction consisted of the level of satisfaction or pleasure experienced with the implant by the implant recipient or sexual partner. Very little is known about the correlates of implant satisfaction. Previous

literature suggests that satisfaction with the implant is related to: the couple's expectations regarding surgical outcome and the degree to which any postsurgical medical complications are resolved (Beaser et al., 1982); the degree and locale of postsurgical discomfort, and the frequency of sexual activity (Gerstenberger et al., 1979). In addition, such factors as type of implant (Beutler et al., 1984, 1986), age of the patient (Beaser et al., 1982), and etiology of erectile dysfunction (Gee et al., 1974) may contribute to the couple's implant satisfaction. These latter predictor variables have inconsistently been related to implant satisfaction so the stability of the relationship between these factors and implant satisfaction is unclear.

The current investigation found that type of implant was the single greatest contributor to implant satisfaction for these 49 couples. For both the patient and partner, none of the factors studied contributed more than type of implant to subsequent implant satisfaction. This finding is similar to the previous findings of our research group on a larger subject pool. Beutler et al. (1984) found that the 34 sexual partners of men who received the IPP were more satisfied with their implant than the 11 partners of non-IPP recipients. Likewise, the 43 IPP recipients reported greater implant satisfaction than did the 14 non-IPP recipients (Beutler et al., 1986). It is most interesting

to realize that the subset of 49 implant recipients used in this study reported results which were identical to those reported by Beutler et al. (1986).

The original, larger studies did not investigate the relative contribution of different predictor variables to implant satisfaction. An effort to do so in this study revealed that the only other predictor variable to contribute to implant satisfaction above and beyond type of implant was couple correspondence on sexual drive level. This is a similar finding to another finding of this study that correspondence on sexual drive contributed to the patient's sexual satisfaction and dissimilar to the previously mentioned results of Murstein's (1974) study. These results do seem similar to the indication that sexual frequency is related to implant satisfaction (Gerstenberger et al., 1979). It appears that the more similar the implant couple is on their sexual drive, the more satisfied the patient will be with his implant.

Partner's implant satisfaction levels appear to be more complexly related to the predictor variables than was true for the patient. No other predictor variable contributed above and beyond type of implant to the partner's implant satisfaction. Upon conducting the separate multiple regression analysis, several sexual adjustment factors were found to contribute to implant satisfaction. The sexual

adjustment factor that contributed the most to the partner's implant satisfaction was partner's sexual information, followed by patient's sexual information and the patient's sexual attitudes. Apparently, Kaplan's (1974) observation is also true for the patients receiving implants; the more sexually informed the couple is, the more satisfied the partner will be with the implant.

The relationship between the patient's sexual attitudes and the partner's implant satisfaction seems to mean that as the patient becomes more liberal in his sexual attitudes, the partner experiences more satisfaction with the implant. It appears that correspondence on sexual attitudes does not contribute to implant satisfaction. This conclusion is contrary to the findings of Coombs (1966), who suggests that value consensus is related to marital satisfaction. It appears that the constructs of implant and marital satisfaction measure very different aspects of these couples' relationships.

There was a very strong similarity in the results for the patient and partner of type of implant contributing to their implant satisfaction. The differences that exist between the correlates to their implant satisfaction were less pronounced, and yet significant. These differences are probably due to differences in the questions asked of the patient and partner that measured their implant satisfaction

and to inherent gender differences. There may be inherent gender differences because it is the man who is receiving the implant, and his perception of satisfaction with the implant is likely to be different from his partner.

Future investigations into the correlates of implant satisfaction should investigate several additional factors not examined in this current study. Fruitful questions may include, what is the relationship between the implant couple's implant satisfaction and their presurgical expectations regarding postsurgical outcomes? How much do the factors of degree to which medical complications are resolved and the degree and locale of postsurgical discomfort contribute to the couple's implant satisfaction? It is recommended that future investigations use identical measures of this construct for the patient and partner so as to eliminate instrumentation as a confound in interpreting differences in results between patient and partner.

#### Couple Correspondence

Correspondence was defined in this study as the degree of similarity between the members of a couple on some aspect of their relationship. Correspondence has been investigated for different aspects of relationships, such as specific relationship behaviors (Elwood and Jackson, 1982), level of agreement on their relationship (Baider and Sarrell, 1984), degree of sexual satisfaction (Krane et al.,

1981; Subrini, 1982), and amount of implant satisfaction (Beaser et al., 1979; Schlamowitz et al., 1983). Correspondence obtained, where both partners are in full agreement, varies greatly depending on the construct being investigated and the level of functioning of the couples (Christensen et al., 1983).

This study investigated the degree of similarity between the implant patient and his sexual partner on their psychological and sexual adjustment. Implant couples corresponded most closely on their sexual experience and sexual drive, and to a lesser degree on sexual information, sexual attitudes, and psychological symptoms. Perhaps this was true because sexual experience and sexual drive were traits based on interpersonal sexual activity, whereas the other three constructs reflect more intrapersonal traits and states. The total correspondence for these couples appeared quite low. This may be due to these constructs being personal states and traits rather than aspects of the couple's behavior or current relationship.

Future investigations of implant couples could include assessment of their correspondence on specific relationship and sexual behaviors prior to and following surgical implantation. In addition, a pre- versus postsurgical assessment of correspondence on sexual drive and sexual attitudes should be investigated.

## Hypotheses

The hypotheses were not supported in this current investigation. Couple correspondence was not the greatest contributor to the patient's and partner's implant and sexual satisfaction. Instead, type of implant contributed the most to these dependent variables. Why weren't the hypotheses supported? Why did type of implant contribute more than the other predictor variables?

It was hypothesized that couple correspondence would be the single greatest contributor to implant and sexual satisfaction. These hypotheses were treated not because any similar studies had reported such trends, since there were no such studies. Instead, these hypotheses were created based on several separate trends within the implant and relationship satisfaction literature. One such trend was that similarities in couples contributed strongly to their relationship satisfaction. Another relevant trend in the literature was that there was both support for and negation of the existence of a relationship between type of implant and both implant and sexual satisfaction (Smith et al., 1979; Beaser et al., 1982; Beutler et al., 1984; Hollander & Diokno, 1984; Beutler et al., 1986). Based on these trends within the literature, it appeared that similarities within couples appeared to be a more reliable predictor of relationship satisfaction. Furthermore, prior to this

study, there were no similar investigations that compared the relative contribution of such predictor variables to implant and/or sexual satisfaction for either implant or nonimplant couples. As a result, couple correspondence was hypothesized to be the greatest contributor to implant and sexual satisfaction more as a scientific hunch than due to any trends strongly supported within scientific literature. Hence, it is not surprising that another predictor variable would result in being the strongest contributor to the dependent variables.

This study was part of a larger investigation by Beutler et al. (1984, 1986) in which there was found to be a significant relationship between type of implant and implant and sexual satisfaction. It is to be expected that there would be a similar relationship between these dependent and predictor variables with the smaller group of subjects used in this study. It was surprising that type of implant would contribute so strongly and consistently to the dependent variables, above and beyond all other categories of predictor variables. It appears that those couples where the male has received an IPP experienced the greatest degree of implant and sexual satisfaction. Since the IPP more than the non-IPP resembles more closely the natural process of erectile functioning, this may explain why type of implant contributes so strongly to the patient's implant and sexual

satisfaction. With the IPP the man is able to control his erectile functioning, he has a more normal-appearing erection, and the coital experience is more similar to his preimpotence sexual intercourse than is the case for recipients of noninflatable implants (Hollander & Diokno, 1984; Beutler et al., 1986). In addition, male sexual problems seem to be disturbances in sexual functioning (Kaplan, 1974), and once their functioning has been restored as it has been via surgery, men will tend to be more satisfied, especially if their functioning very nearly resembles the quality of their preimpotence pattern.

These same results for the sexual partner of type of implant being the strongest contributor to implant and sexual satisfaction seem more difficult to understand. It appears that the male having a more normal-appearing erection, and his erectile functioning being more like the natural erectile process is also more satisfying to partners of men receiving the IPP than to partners whose mates had received another type of implant. These findings may also be due to the female partner's following the improvement that their male partners probably experience in their level of satisfaction sexually and with the implant. These female partners may have had a similar experience to the wives in Schoenberg and associate's (1982) study such that the women were happy with the positive changes they noticed in their

husbands following implantation. Since this study only gathered posttreatment data, one can only speculate on this pattern. It is recommended that future studies investigate pre- and posttreatment levels of sexual satisfaction to see if such a pattern emerges of female partners following their mate's changes in satisfaction levels.

#### Implications of the Findings

It appears that the strongest conclusion from the results of this study is that the type of implant is a more important factor in predicting implant and sexual satisfaction for both implant patients and their sexual partners than individual adjustment or correspondence on adjustment. At least this finding would probably be true for future implant patients and partners than are similar to the subjects in this study in terms of such factors as age, etiology of erectile dysfunction, and type of implant received. These results suggest that implant patients and partners would probably experience greater implant and sexual satisfaction if they chose the IPP over the Finney or Small-Carrion implants.

It may be important for the urologist to provide future implant patients and partners with the information that the type of implant they choose will probably affect the degree of postsurgical implant and sexual satisfaction they will experience. Other members of the assessment and

treatment team (e.g., psychiatrists, psychologists, lab technicians) should be informed of the differences in the types of implants, including efficacy, so that they can answer any questions that the patient and/or partner may have about the implant as the couple proceeds through the process of decision making.

The surgeon, psychiatrist and psychologist who may make up the treatment team all need to be informed of the finding that correspondence also contributes to the patient's implant and sexual satisfaction. Utilizing this knowledge, the treatment team could work to maximize the patient's implant and sexual satisfaction. To achieve this goal, it is recommended that the team could do two things: assess the couple's similarity in their presurgical sexual drive and sexual attitudes; and the psychiatrist or psychologist work with the couple to facilitate greater similarity in their sexual drive and sexual attitudes prior to receiving the implant.

Sex therapists who may be working with impotent patients and their partners may also benefit from these findings. They may educate their organically as well as psychogenically impotent patients and partners as to the option of penile implants and how the IPP has been found to contribute more to the patient's and partner's implant and sexual satisfaction than do certain noninflatable implants.

The findings of couple correspondence on sexual drive and sexual attitudes contributing to the male's sexual satisfaction is relevant to sex therapists working with impotent men. Sex therapists could address their therapeutic energies to assessing and then facilitating the degree of similarity between the impotent male and his sexual partner on their sexual drive and sexual attitudes in hopes of increasing the male's sexual satisfaction. This could be done prior to implant surgery or, as in the case of Divita and Olsson (1975), done after implantation, especially when the implant couple is experiencing postsurgical implant or sexual dissatisfaction.

#### Suggestions for Further Research

Additional suggestions for further research include matters of design and emphasis. Suggestions for changes in design for future studies consist of utilizing more of an experimental design plus creating changes in the subjects and instrumentation utilized. This study was an ex post facto correlational design as are many implant studies. It is recommended that future implant studies follow more experimental design procedures, especially conducting pre- and postsurgical assessment plus a long-term follow-up of the psychological and sexual adjustment, including implant and sexual satisfaction, for the implant patient and partner. Since it is improbable to randomly assign patients

to surgical treatment groups, it would be very important to include comparison groups such as organically impotent men who chose not to have surgery or psychogenically impotent men who were in sex therapy.

Further research is needed to see if these same results would be found if a different group of patients and partners were the subjects. It is recommended that a replication of this study be conducted with the following changes occurring in the subjects investigated: a larger overall N; an equal number of IPP and non-IPP patients and partners; and patients who have received the newer implants, especially the newer noninflatable devices such as the Jonas or Dow-Corning implants.

There is only one suggestion as far as improvements in instrumentation, and that is to utilize only the subtests of the DSFI that are directly relevant to the hypotheses of the study. Since it was a common complaint of the non-completers of the DSFI that it was too long and offensive as far as much of the content, it is thought that a shortened version of it may result in more subjects cooperating by completing and returning it.

The suggested changes in emphasis for further research include investigating the correlates of sexual satisfaction and their relative contribution to sexual satisfaction for non-implant couples. Since type of implant

would not be a correlate of sexual satisfaction for non-implant couples, it would be interesting to investigate the degree to which couple correspondence, individual adjustment, and other factors such as the quality of the couple's emotional relationship contribute to a man and woman's sexual satisfaction. The kind of couples that could be investigated might consist of healthy, functional couples, couples experiencing marital or sexual dysfunction or couples where a partner is experiencing some chronic or terminal illness. Such investigations will lead us to know much more about what contributes to the sexual satisfaction of men and women.

#### Summary

The statistical analysis of the hypotheses in this study indicated that type of implant was the strongest contributor to implant and sexual satisfaction for penile implant patients and their sexual partners. Furthermore, couple correspondence on sexual drive was found to contribute to a patient's implant satisfaction, and correspondence on sexual drive and sexual attitudes were found to contribute to patient's sexual satisfaction. Additional findings included the results that these couples corresponded more on their sexual experience and sexual drive than they did on their sexual information, sexual attitudes or psychological symptoms. These findings were

discussed in light of prior research. Implications of these results for the implant patient and partner, the treatment team and sex therapists were presented. It was suggested that further investigations be conducted to replicate these findings with patients receiving other types of implants. Further research also seems warranted to investigate the correlates of sexual satisfaction for nonimplant couples. This study has contributed to the body of knowledge about implant and sexual satisfaction for penile implant patients and their sexual partners and points the way for further investigations.

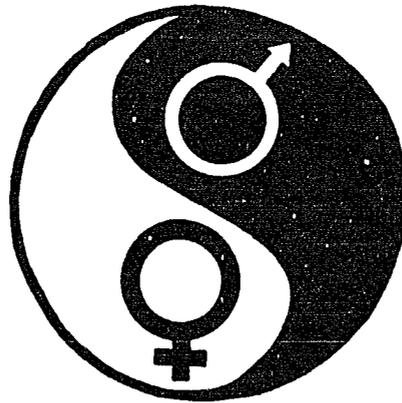
APPENDIX A

DEROGATIS SEXUAL FUNCTIONING INVENTORY

## DEROGATIS SEXUAL FUNCTIONING INVENTORY (DSFI)

<u>Subtest</u>	<u>Section</u>
Information.....	I
Experience.....	II
Drive.....	III
Attitudes.....	IV
Psychological Symptoms.....	V
Affects.....	VI
Sex Role Identity.....	VII
Sexual Fantasies.....	VIII
Body Image.....	IX
Sexual Satisfaction.....	X
Global Sexual Satisfaction Index.	GSSI

# DSFI



**DEROGATIS  
SEXUAL FUNCTIONING  
INVENTORY**

COPYRIGHT ©1975,1978 BY LEONARD R. DEROGATIS, PH.D.

### INSTRUCTIONS

*Below you will be asked to report certain attitudes and opinions, and provide information about some of your sexual experiences. These questions are focused on your thoughts and feelings. Your answers and responses will be kept in the utmost confidence, and only those members of the staff directly involved with your treatment will have access to this information. It will not be made available to anyone else unless you request it. The inventory is divided into 10 sections, and in each section you are asked something slightly different. In some you are asked to answer questions, while in others you are asked to describe yourself. We also ask about problems you may be having and about some of your sexual thoughts, fantasies, and experiences.*

*Each section has a brief instruction which will tell you what you are to do in that section. Please work quickly, and do not skip any items. If you have any questions, please ask the technician to help you.*

#### SECTION I

*Below are some statements concerning general information about sexual functioning. Please read each statement carefully. Once you have read it, indicate whether you agree with the statement or not by marking TRUE for those you agree with, and FALSE for those you do not.*

	<u>TRUE</u>	<u>FALSE</u>
1. USUALLY MEN ACHIEVE ORGASM MORE QUICKLY THAN WOMEN	0	0
2. HAVING INTERCOURSE DURING MENSTRUATION IS NOT A HEALTHY PRACTICE	0	0
3. THE PENIS MUST BE ERECT BEFORE EJACULATION MAY OCCUR	0	0
4. SIMULTANEOUS ORGASM IS NOT NECESSARY FOR A GOOD SEXUAL RELATIONSHIP	0	0
5. MASTURBATION BY EITHER PARTNER IS AN INDICATOR OF POOR MARITAL ADJUSTMENT	0	0
6. A WOMAN WHO HAS HAD A HYSTERECTOMY CAN NO LONGER EXPERIENCE ORGASM	0	0
7. MEN REACH THE PEAK OF THEIR SEXUAL DRIVE IN THEIR LATE TEENS WHILE WOMEN REACH THEIR PEAK DURING THEIR 30'S	0	0
8. A WOMAN CAN BECOME PREGNANT DURING MENSTRUATION	0	0
9. MOST MEN AND WOMEN LOSE INTEREST IN SEX AFTER AGE 60	0	0
10. A MALE'S ORGASM IS MORE SATISFYING THAN A FEMALE'S ORGASM	0	0
11. THE PROPHYLACTIC (RUBBER) PROTECTS AGAINST CONCEPTION AND AGAINST VENEREAL DISEASE	0	0
12. LUBRICATION IN THE FEMALE SHOWS SEXUAL EXCITEMENT LIKE THE MALE'S ERECTION	0	0
13. ORAL-GENITAL SEX IS UNHEALTHY BECAUSE IT ENHANCES THE POSSIBILITY OF CONTRACTING VENEREAL DISEASE	0	0
14. WOMEN WHO HAVE FANTASIES DURING INTERCOURSE ARE DISSATISFIED WITH THEIR SEX LIVES	0	0
15. FREQUENCY OF INTERCOURSE IS AN ACCURATE MEASURE OF SUCCESS OF A RELATIONSHIP	0	0
16. A WOMAN MAY BE BROUGHT TO ORGASM BY MANUAL STIMULATION OF HER GENITALS	0	0
17. MENOPAUSE IN A WOMAN CREATES A SHARP REDUCTION IN HER SEXUAL DRIVE	0	0
18. WOMEN DESIRE SEX ABOUT AS FREQUENTLY AS MEN	0	0
19. AN EFFECTIVE FORM OF CONTRACEPTION IS DOUCHING AFTER INTERCOURSE	0	0
20. AFTER INTERCOURSE THERE IS A PERIOD WHEN A MAN CANNOT RESPOND TO SEXUAL STIMULATION	0	0
21. FEMALES CAN MAINTAIN A SEXUAL RESPONSE THROUGH MULTIPLE ORGASMS	0	0
22. MOST WOMEN ARE ABLE TO ENJOY SEX EVEN WITHOUT EXPERIENCING ORGASM	0	0
23. THE BIGGER THE PENIS THE MORE SATISFYING IT IS TO THE FEMALE IN INTERCOURSE	0	0
24. A WOMAN CAN NO LONGER BECOME PREGNANT ONCE MENOPAUSE HAS BEGUN	0	0
25. ERECTION IN THE MALE IS BROUGHT ABOUT BY CONGESTION OF BLOOD IN THE PENIS	0	0
26. THE CLITORIS IS NOT A PARTICULARLY SENSITIVE AREA OF THE FEMALE'S GENITALS	0	0

SECTION II

Below are a list of sexual experiences that people have. We would like to know which of these sexual behaviors you have experienced. Please indicate those experiences you have personally had by placing a check ( [✓] ) under the YES column for that experience. If you have not had the experience place your check under the NO column. In addition, if you have had the experience during the past two months please place an additional check under the column marked PAST 60 DAYS. Make your marks carefully and do not skip any items.

	YES	NO	PAST 60 DAYS
1. MALE LYING PRONE ON FEMALE (CLOTHED)	[ ]	[ ]	[ ]
2. STROKING AND PETTING YOUR SEXUAL PARTNER'S GENITALS	[ ]	[ ]	[ ]
3. EROTIC EMBRACE (CLOTHED)	[ ]	[ ]	[ ]
4. INTERCOURSE-VAGINAL ENTRY FROM REAR	[ ]	[ ]	[ ]
5. HAVING GENITALS CARESSED BY YOUR SEXUAL PARTNER	[ ]	[ ]	[ ]
6. MUTUAL ORAL STIMULATION OF GENITALS	[ ]	[ ]	[ ]
7. ORAL STIMULATION OF YOUR PARTNER'S GENITALS	[ ]	[ ]	[ ]
8. INTERCOURSE-SIDE BY SIDE	[ ]	[ ]	[ ]
9. KISSING OF SENSITIVE (NON-GENITAL) AREAS OF THE BODY	[ ]	[ ]	[ ]
10. INTERCOURSE-SITTING POSITION	[ ]	[ ]	[ ]
11. MASTURBATING ALONE	[ ]	[ ]	[ ]
12. MALE KISSING FEMALE'S NUDE BREASTS	[ ]	[ ]	[ ]
	YES	NO	PAST 60 DAYS
13. HAVING YOUR ANAL AREA CARESSED	[ ]	[ ]	[ ]
14. BREAST PETTING (CLOTHED)	[ ]	[ ]	[ ]
15. CARESSING YOUR PARTNER'S ANAL AREA	[ ]	[ ]	[ ]
16. INTERCOURSE-FEMALE SUPERIOR POSITION	[ ]	[ ]	[ ]
17. MUTUAL PETTING OF GENITALS TO ORGASM	[ ]	[ ]	[ ]
18. HAVING YOUR GENITALS ORALLY STIMULATED	[ ]	[ ]	[ ]
19. MUTUAL UNDRESSING OF EACH OTHER	[ ]	[ ]	[ ]
20. DEEP KISSING	[ ]	[ ]	[ ]
21. INTERCOURSE-MALE SUPERIOR POSITION	[ ]	[ ]	[ ]
22. ANAL INTERCOURSE	[ ]	[ ]	[ ]
23. KISSING ON THE LIPS	[ ]	[ ]	[ ]
24. BREAST PETTING (NUDE)	[ ]	[ ]	[ ]

SECTION III

Below we would like you to indicate the frequency with which you typically engage in certain sexual activities. Please indicate how often you experience each of the sexual activities below by checking ( [✓] ) the category that is closest to your personal frequency. Categories range from "NOT AT ALL" to "4 OR MORE TIMES A DAY". Please do not skip any items.

	NOT AT ALL	LESS THAN 1 MONTH	1-2 MONTH	1 WEEK	2-3 WEEK	4-6 WEEK	1 DAY	2-3 DAY	4 OR MORE DAY
1. INTERCOURSE	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
2. MASTURBATION	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
3. KISSING AND PETTING	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
4. SEXUAL FANTASIES	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
5. WHAT WOULD BE YOUR IDEAL FREQUENCY OF SEXUAL INTERCOURSE ?	[ ]						[ ]		
6. AT WHAT AGE DID YOU FIRST BECOME INTERESTED IN SEXUAL ACTIVITY ?	[ ]						[ ]		
7. AT WHAT AGE DID YOU FIRST HAVE SEXUAL INTERCOURSE ?	[ ]						[ ]		

## SECTION IV

Below are a series of statements about various aspects of sexual behavior. We would like to know to what extent you agree or disagree with each one. Please indicate how much you agree or disagree with each statement by placing the appropriate number from the alternatives below in the space alongside the statement. Please do not skip any statements and work quickly.

- | -2                   | -1       | 0                             | 1     | 2                 |
|----------------------|----------|-------------------------------|-------|-------------------|
| STRONGLY<br>DISAGREE | DISAGREE | NEITHER<br>AGREE NOR DISAGREE | AGREE | STRONGLY<br>AGREE |
| 1. [ ]               |          |                               |       |                   |
| 2. [ ]               |          |                               |       |                   |
| 3. [ ]               |          |                               |       |                   |
| 4. [ ]               |          |                               |       |                   |
| 5. [ ]               |          |                               |       |                   |
| 6. [ ]               |          |                               |       |                   |
| 7. [ ]               |          |                               |       |                   |
| 8. [ ]               |          |                               |       |                   |
| 9. [ ]               |          |                               |       |                   |
| 10. [ ]              |          |                               |       |                   |
| 11. [ ]              |          |                               |       |                   |
| 12. [ ]              |          |                               |       |                   |
| 13. [ ]              |          |                               |       |                   |
| 14. [ ]              |          |                               |       |                   |
| 15. [ ]              |          |                               |       |                   |
| 16. [ ]              |          |                               |       |                   |
| 17. [ ]              |          |                               |       |                   |
| 18. [ ]              |          |                               |       |                   |
| 19. [ ]              |          |                               |       |                   |
| 20. [ ]              |          |                               |       |                   |
| 21. [ ]              |          |                               |       |                   |
| 22. [ ]              |          |                               |       |                   |
| 23. [ ]              |          |                               |       |                   |
| 24. [ ]              |          |                               |       |                   |
| 25. [ ]              |          |                               |       |                   |
| 26. [ ]              |          |                               |       |                   |
| 27. [ ]              |          |                               |       |                   |
| 28. [ ]              |          |                               |       |                   |
| 29. [ ]              |          |                               |       |                   |
| 30. [ ]              |          |                               |       |                   |

## SECTION V

Below is a list of problems and complaints that people sometimes have. Please read each one carefully. After you have done so, please fill in one of the numbered spaces to the right that best describes HOW MUCH THAT PROBLEM HAS BOTHERED OR DISTRESSED YOU IN THE PAST TWO WEEKS INCLUDING TODAY. Mark only one numbered space for each problem and do not skip any items.

HOW MUCH WERE YOU BOTHERED BY :	not at all	slightly	moderately	quite a bit	extremely	HOW MUCH WERE YOU BOTHERED BY :	not at all	slightly	moderately	quite a bit	extremely
1. NERVOUSNESS OR SHAKINESS INSIDE	=0=	=1=	=2=	=3=	=4=	27. DIFFICULTY MAKING DECISIONS	=0=	=1=	=2=	=3=	=4=
2. FAINTNESS OR DIZZINESS	=0=	=1=	=2=	=3=	=4=	28. FEELING AFRAID TO TRAVEL ON BUSES, SUBWAYS OR TRAINS	=0=	=1=	=2=	=3=	=4=
3. THE IDEA THAT SOMEONE ELSE CAN CONTROL YOUR MIND	=0=	=1=	=2=	=3=	=4=	29. TROUBLE GETTING YOUR BREATH	=0=	=1=	=2=	=3=	=4=
4. FEELING OTHERS ARE TO BLAME FOR MOST OF YOUR TROUBLES	=0=	=1=	=2=	=3=	=4=	30. HOT OR COLD SPELLS	=0=	=1=	=2=	=3=	=4=
5. TROUBLE REMEMBERING THINGS	=0=	=1=	=2=	=3=	=4=	31. HAVING TO AVOID CERTAIN THINGS, PLACES OR ACTIVITIES BECAUSE THEY FRIGHTEN YOU	=0=	=1=	=2=	=3=	=4=
6. FEELING EASILY ANNOYED OR IRRITATED	=0=	=1=	=2=	=3=	=4=	32. YOUR MIND GOING BLANK	=0=	=1=	=2=	=3=	=4=
7. PAINS IN HEART OR CHEST	=0=	=1=	=2=	=3=	=4=	33. NUMBNESS OR TINGLING IN PARTS OF YOUR BODY	=0=	=1=	=2=	=3=	=4=
8. FEELING AFRAID IN OPEN SPACES	=0=	=1=	=2=	=3=	=4=	34. THE IDEA THAT YOU SHOULD BE PUNISHED FOR YOUR SINS	=0=	=1=	=2=	=3=	=4=
9. THOUGHTS OF ENDING YOUR LIFE	=0=	=1=	=2=	=3=	=4=	35. FEELING HOPELESS ABOUT THE FUTURE	=0=	=1=	=2=	=3=	=4=
10. FEELING THAT MOST PEOPLE CANNOT BE TRUSTED	=0=	=1=	=2=	=3=	=4=	36. TROUBLE CONCENTRATING	=0=	=1=	=2=	=3=	=4=
11. POOR APPETITE	=0=	=1=	=2=	=3=	=4=	37. FEELING WEAK IN PARTS OF YOUR BODY	=0=	=1=	=2=	=3=	=4=
12. SUDDENLY SCARED FOR NO REASON	=0=	=1=	=2=	=3=	=4=	38. FEELING TENSE OR KEED UP	=0=	=1=	=2=	=3=	=4=
13. TEMPER OUTBURSTS THAT YOU COULD NOT CONTROL	=0=	=1=	=2=	=3=	=4=	39. THOUGHTS OF DEATH OR DYING	=0=	=1=	=2=	=3=	=4=
14. FEELING LONELY EVEN WHEN YOU ARE WITH PEOPLE	=0=	=1=	=2=	=3=	=4=	40. HAVING URGES TO BEAT, INJURE OR HARM SOMEONE	=0=	=1=	=2=	=3=	=4=
15. FEELING BLOCKED IN GETTING THINGS DONE	=0=	=1=	=2=	=3=	=4=	41. HAVING URGES TO BREAK OR SMASH THINGS	=0=	=1=	=2=	=3=	=4=
16. FEELING LONELY	=0=	=1=	=2=	=3=	=4=	42. FEELING VERY SELF CONSCIOUS WITH OTHERS	=0=	=1=	=2=	=3=	=4=
17. FEELING BLUE	=0=	=1=	=2=	=3=	=4=	43. FEELING UNEASY IN CROWDS	=0=	=1=	=2=	=3=	=4=
18. FEELING NO INTEREST IN THINGS	=0=	=1=	=2=	=3=	=4=	44. NEVER FEELING CLOSE TO ANOTHER PERSON	=0=	=1=	=2=	=3=	=4=
19. FEELING FEARFUL	=0=	=1=	=2=	=3=	=4=	45. SPELLS OF TERROR OR PANIC	=0=	=1=	=2=	=3=	=4=
20. YOUR FEELINGS BEING EASILY HURT	=0=	=1=	=2=	=3=	=4=	46. GETTING INTO FREQUENT ARGUMENTS	=0=	=1=	=2=	=3=	=4=
21. FEELING THAT PEOPLE ARE UNFRIENDLY OR DISLIKE YOU	=0=	=1=	=2=	=3=	=4=	47. FEELING NERVOUS WHEN YOU ARE LEFT ALONE	=0=	=1=	=2=	=3=	=4=
22. FEELING INFERIOR TO OTHERS	=0=	=1=	=2=	=3=	=4=	48. OTHERS NOT GIVING YOU PROPER CREDIT FOR YOUR ACHIEVEMENTS	=0=	=1=	=2=	=3=	=4=
23. NAUSEA OR UPSET STOMACH	=0=	=1=	=2=	=3=	=4=	49. FEELING SO RESTLESS YOU COULDN'T SIT STILL	=0=	=1=	=2=	=3=	=4=
24. FEELING THAT YOU ARE NATCHED OR TALKED ABOUT BY OTHERS	=0=	=1=	=2=	=3=	=4=	50. FEELING OF WORTHLESSNESS	=0=	=1=	=2=	=3=	=4=
25. TROUBLE FALLING ASLEEP	=0=	=1=	=2=	=3=	=4=	51. FEELING PEOPLE WILL TAKE ADVANTAGE OF YOU IF YOU LET THEM	=0=	=1=	=2=	=3=	=4=
26. HAVING TO CHECK AND DOUBLE CHECK WHAT YOU DO	=0=	=1=	=2=	=3=	=4=	52. FEELINGS OF GUILT	=0=	=1=	=2=	=3=	=4=
						53. THE IDEA THAT SOMETHING IS WRONG WITH YOUR MIND	=0=	=1=	=2=	=3=	=4=

## SECTION VI

Below is a list of words that describe the way people sometimes feel. We would like you to tell us whether you have been having any of these feelings during the past TWO WEEKS. Please indicate the degree to which you have typically felt each emotion by filling in one of the numbered spaces that best describes your experience.

	never	rarely	sometimes	frequently	always		never	rarely	sometimes	frequently	always
1. NERVOUS	=0=	=1=	=2=	=3=	=4=	21. CHEERFUL	=0=	=1=	=2=	=3=	=4=
2. SAD	=0=	=1=	=2=	=3=	=4=	22. SATISFIED	=0=	=1=	=2=	=3=	=4=
3. REGRETFUL	=0=	=1=	=2=	=3=	=4=	23. ACTIVE	=0=	=1=	=2=	=3=	=4=
4. IRRITABLE	=0=	=1=	=2=	=3=	=4=	24. FRIENDLY	=0=	=1=	=2=	=3=	=4=
5. HAPPY	=0=	=1=	=2=	=3=	=4=	25. ANXIOUS	=0=	=1=	=2=	=3=	=4=
6. PLEASED	=0=	=1=	=2=	=3=	=4=	26. MISERABLE	=0=	=1=	=2=	=3=	=4=
7. EXCITED	=0=	=1=	=2=	=3=	=4=	27. GUILTY	=0=	=1=	=2=	=3=	=4=
8. PASSIONATE	=0=	=1=	=2=	=3=	=4=	28. ENRAGED	=0=	=1=	=2=	=3=	=4=
9. TIMID	=0=	=1=	=2=	=3=	=4=	29. DELIGHTED	=0=	=1=	=2=	=3=	=4=
10. HOPELESS	=0=	=1=	=2=	=3=	=4=	30. RELAXED	=0=	=1=	=2=	=3=	=4=
11. BLAMEWORTHY	=0=	=1=	=2=	=3=	=4=	31. VIGOROUS	=0=	=1=	=2=	=3=	=4=
12. RESENTFUL	=0=	=1=	=2=	=3=	=4=	32. AFFECTIONATE	=0=	=1=	=2=	=3=	=4=
13. GLAD	=0=	=1=	=2=	=3=	=4=	33. AFRAID	=0=	=1=	=2=	=3=	=4=
14. CALM	=0=	=1=	=2=	=3=	=4=	34. UNHAPPY	=0=	=1=	=2=	=3=	=4=
15. ENERGETIC	=0=	=1=	=2=	=3=	=4=	35. REMORSEFUL	=0=	=1=	=2=	=3=	=4=
16. LOVING	=0=	=1=	=2=	=3=	=4=	36. BITTER	=0=	=1=	=2=	=3=	=4=
17. TENSE	=0=	=1=	=2=	=3=	=4=	37. JOYOUS	=0=	=1=	=2=	=3=	=4=
18. WORTHLESS	=0=	=1=	=2=	=3=	=4=	38. CONTENTED	=0=	=1=	=2=	=3=	=4=
19. ASHAMED	=0=	=1=	=2=	=3=	=4=	39. LIVELY	=0=	=1=	=2=	=3=	=4=
20. ANGRY	=0=	=1=	=2=	=3=	=4=	40. WARM	=0=	=1=	=2=	=3=	=4=

## SECTION VII

Below is a list of personality characteristics that are often used to describe people. We would like you to describe yourself in terms of these characteristics. To do this, please indicate the degree to which each trait is typical of you--in other words, how much of each characteristic you have. Use the numbered scale given below, and place the appropriate number alongside each trait.

0	1	2	3	4
NOT AT ALL	A LITTLE BIT	MODERATELY	QUITE A BIT	EXTREMELY
1. SYMPATHETIC [ ]		11. SENSITIVE [ ]		21. GRACEFUL [ ]
2. DECISIVE [ ]		12. INDEPENDENT [ ]		22. DOMINANT [ ]
3. FRIVOLOUS [ ]		13. DOMESTIC [ ]		23. SEDUCTIVE [ ]
4. PRACTICAL [ ]		14. BOLD [ ]		24. AUTHORITATIVE [ ]
5. SENTIMENTAL [ ]		15. DEPENDENT [ ]		25. WHIMSICAL [ ]
6. RATIONAL [ ]		16. ADVENTUROUS [ ]		26. ATHLETIC [ ]
7. SECRETIVE [ ]		17. FELINE [ ]		27. FASHIONABLE [ ]
8. CONFIDENT [ ]		18. STRONG [ ]		28. AGGRESSIVE [ ]
9. COMPASSIONATE [ ]		19. FLIRTATIOUS [ ]		29. GENTLE [ ]
10. VIGOROUS [ ]		20. MECHANICAL [ ]		30. ASSERTIVE [ ]

---

 SECTION VIII
 

---

*In this section we have listed a variety of sexual ideas, and fantasies that people sometimes have. We would like you to indicate which of these fantasies you have experienced either in daydreams or dreams while asleep. For each fantasy that you have experienced place a check (✓) in the space alongside that item.*

- 
1. { } HAVING MORE THAN ONE SEXUAL PARTNER AT THE SAME TIME
  2. { } HAVING INTERCOURSE IN UNUSUAL POSITIONS
  3. { } HAVING SEXUAL RELATIONS WITH ANIMALS
  4. { } WHIPPING OR BEATING YOUR SEXUAL PARTNER
  5. { } FORCING A PARTNER TO SUBMIT TO SEXUAL ACTS
  6. { } DRESSING IN CLOTHES OF THE OPPOSITE SEX
  7. { } USING ARTIFICIAL DEVICES FOR SEXUAL STIMULATION
  8. { } BEING A PROSTITUTE
  9. { } FORBIDDEN LOVER OR MISTRESS IN SEXUAL ADVENTURES
  10. { } HOMOSEXUAL FANTASIES
  11. { } MATESWAPPING FANTASIES
  12. { } BEING TIED UP OR BOUND DURING SEXUAL ACTIVITIES
  13. { } DEGRADING A SEX PARTNER
  14. { } BEING SEXUALLY DEGRADED
  15. { } ANAL INTERCOURSE
  16. { } DRESSING IN EROTIC GARMENTS
  17. { } SEXUAL INTERCOURSE
  18. { } FANTASIZING THAT YOU ARE OF THE OPPOSITE SEX
  19. { } ORAL-GENITAL SEX
  20. { } BEING FORCED TO SUBMIT TO SEXUAL ACTS
- 

---

 SECTION IX
 

---

*Below are some statements concerning how you view your body. Please indicate to what degree each of the following statements is true of you by circling the number that best describes your experience. Note that Part A is for both sexes, Part B is for men only, and Part C is for women only.*

<u>PART A (BOTH SEXES)</u>		▼ not at all	▼ slightly	▼ moderately	▼ quite a bit	▼ extremely
1.	I AM LESS ATTRACTIVE THAN I WOULD LIKE TO BE	0	1	2	3	4
2.	I AM TOO FAT	0	1	2	3	4
3.	I ENJOY BEING SEEN IN A BATHING SUIT	0	1	2	3	4
4.	I AM TOO THIN	0	1	2	3	4
5.	I WOULD BE EMBARRASSED TO BE SEEN NUDE BY A LOVER	0	1	2	3	4
6.	I AM TOO SHORT	0	1	2	3	4
7.	THERE ARE PARTS OF MY BODY I DON'T LIKE AT ALL	0	1	2	3	4
8.	I AM TOO TALL	0	1	2	3	4
9.	I HAVE TOO MUCH BODY HAIR	0	1	2	3	4
10.	MY FACE IS ATTRACTIVE	0	1	2	3	4

---

PART B (MEN ONLY)

		not at all	slightly	moderately	quite a bit	extremely
11. I HAVE A WELL PROPORTIONED BODY	▼	0	1	2	3	4
12. I AM SATISFIED WITH THE SIZE OF MY PENIS	▼	0	1	2	3	4
13. WOMEN WOULD FIND MY BODY ATTRACTIVE	▼	0	1	2	3	4
14. I AM WELL-COORDINATED AND ATHLETIC	▼	0	1	2	3	4
15. I AM PLEASED WITH THE PHYSICAL CONDITION OF MY BODY	▼	0	1	2	3	4

PART C (WOMEN ONLY)

		not at all	slightly	moderately	quite a bit	extremely
16. I HAVE A SHAPELY AND WELL PROPORTIONED BODY	▼	0	1	2	3	4
17. I HAVE ATTRACTIVE BREASTS	▼	0	1	2	3	4
18. MEN WOULD FIND MY BODY ATTRACTIVE	▼	0	1	2	3	4
19. I HAVE ATTRACTIVE LEGS	▼	0	1	2	3	4
20. I AM PLEASED WITH THE WAY MY VAGINA LOOKS	▼	0	1	2	3	4

SECTION X

*Below are some statements about sexual satisfaction. Please indicate whether each statement is true of you by checking either true or false for each item.*

	<u>TRUE</u>	<u>FALSE</u>
1. USUALLY, I AM SATISFIED WITH MY SEXUAL PARTNER	T	F
2. I FEEL I DO NOT HAVE SEX FREQUENTLY ENOUGH	T	F
3. THERE IS NOT ENOUGH VARIETY IN MY SEX LIFE	T	F
4. USUALLY AFTER SEX I FEEL RELAXED AND FULFILLED	T	F
5. USUALLY, SEX DOES NOT LAST LONG ENOUGH	T	F
6. I AM NOT VERY INTERESTED IN SEX	T	F
7. USUALLY, I HAVE A SATISFYING ORGASM WITH SEX	T	F
8. FOREPLAY BEFORE INTERCOURSE IS USUALLY VERY AROUSING FOR ME	T	F
9. OFTEN, I WORRY ABOUT MY SEXUAL PERFORMANCE	T	F
10. USUALLY, MY PARTNER AND I HAVE GOOD COMMUNICATION ABOUT SEX	T	F

*GSSI - Below is a rating scale upon which we would like you to record your personal evaluation of how satisfying your sexual relationship is. The rating is simple. Make your evaluation by placing a check in the appropriate box that best describes your present sexual relationship.*

- 8 COULD NOT BE BETTER
- 7 EXCELLENT
- 6 GOOD
- 5 ABOVE AVERAGE
- 4 ADEQUATE
- 3 SOMEWHAT INADEQUATE
- 2 POOR
- 1 HIGHLY INADEQUATE
- 0 COULD NOT BE WORSE

APPENDIX B

ARIZONA QUESTIONNAIRES

Last Name \_\_\_\_\_ First Name \_\_\_\_\_

1. How painful did you consider this operation?

- a. Very painful
- b. Moderately painful
- c. Sore, but not really painful
- d. Not at all painful and this is not a consideration for a person to worry about.

Other \_\_\_\_\_

2. How soon after the operation did you have intercourse?

- a. 3 weeks
- b. 6 weeks
- c. 8 weeks
- d. Over 2 months

3. How often do you now reach orgasm during intercourse?

- a. Nearly always (90% of the time)
- b. Usually (75% of the time)
- c. Sometimes (50% of the time)
- d. Seldom (25% of the time)
- e. Never

4. How soon after the surgery did you begin to achieve orgasm?

- a. 3 weeks
- b. 6 weeks
- c. 8 weeks
- d. Over 2 months

5. How often do you reach orgasm by masturbation?

- a. Nearly always (90% of the time)
- b. Usually (75% of the time)
- c. Sometimes (50% of the time)
- d. Seldom (25% of the time)
- e. Never
- f. Do not masturbate

The following questions ask you to compare your sexual activity before impotency, with impotency, and since the implantation of the prosthesis:

6. Before you became impotent how often did you have orgasms?
- a. Once per day
  - b. One to three times a week
  - c. One to three times a month
  - d. Less than once a month
  - e. Never
7. After you became impotent, but before the implant, how often did you have orgasms?
- a. Once per day
  - b. One to three times a week
  - c. One to three times a month
  - d. Less than once a month
  - e. Never
8. Since the implant how often do you have orgasms?
- a. Once per day
  - b. One to three times a week
  - c. One to three times a month
  - d. Less than once a month?
  - e. Never
9. Have you slowed down since the implant, that is, after the implant were you at first more sexually active and now your desire is satisfied so that frequency is reduced?
- a. Yes
  - b. No
10. Have you had to have a revision for treatment of a mechanical failure?
- a. Yes
  - b. No
11. If you did have a revision, would you, in your own words, tell a new patient what he needs to know about this:

12. How satisfied are you with your sexual performance now?
- a. Extremely satisfied
  - b. Very satisfied
  - c. Satisfied
  - d. So-so
  - e. Better than nothing
  - f. Dissatisfied
13. How satisfied do you think your sexual partner is with your sexual relationship now?
- a. Extremely satisfied
  - b. Very satisfied
  - c. Satisfied
  - d. So-so
  - e. Better than nothing
  - f. Dissatisfied
14. How do you feel about life in general?
15. Do you feel the implant was worthwhile and you would go through it again if you had it to do over?
- a. Yes
  - b. No
16. Did you have another type of implant before you got the inflatable type?
- a. Yes
  - b. No
17. If you previously had one of the other types of penile implants, would you please make a comment by way of comparison:
18. The remaining space is for any comments that you would like to make that you feel was not covered by the above and any statements that might be of benefit to a new patient considering this operation:

## QUESTIONNAIRE FOR THE SEXUAL PARTNER

Name of Patient: \_\_\_\_\_

1. Do you feel that the implant was entirely successful?  
 a. Yes  
 b. No
2. Do you feel that he has benefitted from this operation?  
 a. Yes  
 b. No
3. How do you compare the physical attributes of sexual intercourse now, compared to before when all was normal?  
 a. Better than before  
 b. Good, same as before  
 c. Good, but not as before  
 d. Adequate  
 e. Poor (surgery did not help)

Comments:

4. Please explain whether, if and how, the implant has improved your marital relationship over what it was while he was impotent?
5. Is there any reason why you wished that he had not had the implant? Would you recommend doing it again?
6. What is your recommendation to a couple who is considering the operation?
7. Do you have any other comments?

APPENDIX C

BAYLOR QUESTIONNAIRES

## MALE QUESTIONNAIRE

1. Please check any of the following health related problems that you have experienced as a result of the implant, and if appropriate, please note any that are not listed. (Circle as many as necessary.)
- 1- recurrent infection (e.g. Urethritis, Prostatitis)
  - 2- physical discomfort, always
  - 3- physical discomfort, only upon inflation
  - 4- physical discomfort, sometimes upon inflation
  - 5- none
  - 6- other, please specify: \_\_\_\_\_
2. What types of mechanical difficulties have you had with the device? (Circle as many as necessary.)
- 1- failure to inflate properly
  - 2- loss of fluid
  - 3- bulging upon inflation
  - 4- failure to deflate properly
  - 5- none
  - 6- other \_\_\_\_\_
3. Have you required additional surgery since the implantation due to mechanical failures of the device or physical complications arising from implantation?
- 1- yes
  - 2- no
- If yes, please relate the details regarding the surgery (i.e. nature of surgery; how long after initial implantation was the surgery undertaken; how many surgical procedures, etc.)
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
4. How closely does the prosthesis resemble your erections before you became impotent? (Circle one)
- 1- very dissimilar
  - 2- moderately dissimilar
  - 3- somewhat dissimilar
  - 4- slightly dissimilar
  - 5- exactly the same
- If your answer was any of the choices other than "exactly the same" could you describe the differences you have experienced (e.g. prosthesis larger or smaller in length, size around, etc.)?
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
5. How similar is the erection to the appearance of a "normal erection"? (Circle one)
- 1- very dissimilar
  - 2- moderately dissimilar
  - 3- somewhat dissimilar
  - 4- slightly dissimilar
  - 5- exactly the same

The next few questions deal with satisfaction. Please indicate your level of satisfaction in questions six through ten by responding with the appropriate number:

- 1- totally dissatisfied
  - 2- mostly dissatisfied
  - 3- somewhat dissatisfied
  - 4- mostly satisfied
  - 5- totally satisfied
6. \_\_\_ How satisfied are you with the firmness of the prosthesis?
7. \_\_\_ How satisfied are you with the length of the prosthesis?
8. \_\_\_ How satisfied are you with the size around (circumference) of the prosthesis?
9. \_\_\_ How satisfied do you think your sexual partner is with the appearance of your erection?
10. \_\_\_ How satisfied do you think your sexual partner is with your prosthesis during intercourse?
11. How much did receiving the implant affect your mood in general? It left my mood:
- 1- much worse
  - 2- somewhat worse
  - 3- unchanged
  - 4- somewhat better
  - 5- much better
12. How has your sexual ability changed since your implant? Is it:
- 1- much worse
  - 2- somewhat worse
  - 3- unchanged
  - 3- somewhat better
  - 4- much better
13. If you have an inflatable prosthesis, how often have you been able to achieve an erection (properly inflate the prosthesis) since receiving the device:
- 1- always
  - 2- many times
  - 3- several times
  - 4- once or twice
  - 5- never
14. How often have you been reluctant or feared to use the prosthesis? (Circle one)
- 1- always
  - 2- many times
  - 3- several times
  - 4- once or twice
  - 5- never
- Why have you been reluctant or afraid to use the prosthesis? (Circle as many as necessary)
- 1- mechanical failure
  - 2- pain
  - 3- embarrassment
  - 4- other \_\_\_\_\_

15. Under what circumstances have you been afraid to use the device?

---



---



---

16. If you have an inflatable prosthesis, and the implant has ever failed to inflate or deflate properly, were you embarrassed?

1- yes

2- no

If so, how embarrassed? (Circle one)

1- mildly

2- somewhat

3- moderately

4- much

5- very much

17. How did receiving the implant affect your marriage or interpersonal sexual relationship(s)? (Circle one)

1- decreased satisfaction greatly

2- decreased satisfaction moderately

3- no change in satisfaction

4- increased satisfaction moderately

5- increased satisfaction greatly

18. Has there been any specific change in your frequency of sexual intercourse since receiving the implant? (Circle one)

1- yes

2- no

If yes, please indicate the nature of the change by circling one of the following choices:

1- very much less frequent now

2- less frequent now

3- about the same now as before

4- more frequent now

5- very much more frequent now

19. If you indulge in other types of sexual relations (e.g. oral; manual stimulation; individual or mutual masturbation), how does the frequency of these activities compare with the frequency before the implantation?

Type of activity: \_\_\_\_\_

(Circle one)

0- not applicable

1- much less frequent now than before

2- less frequent now than before

3- about the same now as before

4- more frequent now than before

5- much more frequent now than before

6- other, please specify: \_\_\_\_\_

---

20. Since your implant, how many disagreements about sexual matters (e.g. lack of agreement on frequency; duration; diversity of sexual relations) have you had with your sexual partner? (Circle one)
- 1- many more now
  - 2- somewhat more now
  - 3- about the same now as before
  - 4- somewhat fewer now
  - 5- many fewer now
21. How much has receiving your implant caused your partner to worry about your fidelity as compared with before receiving the implant? (Circle one)
- 1- much more now
  - 2- somewhat more now
  - 3- about the same now as before
  - 4- somewhat less now
  - 5- much less now
22. Do you have any specific suggestions for future prospective implant candidates?
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
23. What suggestions would you make to improve the implant itself?
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
24. Use the following scale in answering this question:  
1- very poor    2- poor    3- adequate    4- good    5- very good
- Put a number by each of the following statements to indicate how helpful and accurate you found the information you received before the surgery to be in describing:
- \_\_\_ (a) physical effects of the implant
  - \_\_\_ (b) appearance of the implant
  - \_\_\_ (c) feel of the implant
  - \_\_\_ (d) effect of the implant on your sexual and personal life
  - \_\_\_ (e) actual aspects of the operation itself and the inherent risks
25. If you could, would you have the implant surgery again with the same prosthesis, given the same pre-surgical conditions and information?
- 1- yes, with the same prosthesis
  - 2- yes, with a different prosthesis
  - 3- no, not at all
- Please explain: \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
26. How successful would you rate the device as being? (Circle one)
- 1- completely successful
  - 2- moderately successful with a few problems
  - 3- basically successful, with a moderate number of problems
  - 4- somewhat unsuccessful with too many problems, but not a total failure
  - 5- totally unsuccessful

27. Would you contribute any other comments, thoughts or suggestions which you might have concerning the device, its effects on you and your partner(s), that were not previously solicited?

---

---

---

---

---

28. To what extent did your partner participate in the decision to have the implant surgery performed? (Circle one)
- 1- full participation--mutual decision
  - 2- informed and participated somewhat
  - 3- informed but didn't participate in the decision
  - 4- not formally informed, but she/he had some intuition about my intentions
  - 5- not informed and had no idea of my intentions
  - 6- not applicable, partner did not know me prior to implantation

ADDITIONAL QUESTIONS  
(Male)

29. Would you contribute any comments in general that you have which you feel might be helpful to us in this research?

---

---

---

---

---

30. How has the frequency of your extramarital or extra-relationship sexual contact changed since your surgery? (Circle one)
- 0- not applicable
  - 1- much more frequently now
  - 2- somewhat more frequently now
  - 3- about the same now as before
  - 4- somewhat less frequently now
  - 5- much less frequently now

## PARTNER QUESTIONNAIRE

1. To what extent did you participate in the decision to have the implant surgery performed? (Circle one)
- 1- full participation--mutual decision
  - 2- informed and participated somewhat
  - 3- informed but didn't participate in the decision
  - 4- not formally informed, but had some intuition about his intentions
  - 5- not informed and had no idea of his intentions
  - 6- not applicable--didn't know him prior to implantation

2. How sexually satisfied were you before your partner received the prosthesis? (Circle one)
- 0- not applicable
  - 1- totally dissatisfied
  - 2- mostly dissatisfied
  - 3- somewhat satisfied
  - 4- mostly satisfied
  - 5- totally satisfied

3. How sexually satisfied are you now that your partner has the prosthesis? (Circle one)
- 1- totally dissatisfied
  - 2- mostly dissatisfied
  - 3- somewhat satisfied
  - 4- mostly satisfied
  - 5- totally satisfied

If you are dissatisfied, would you describe why and in what way:

---



---



---

4. How similar is the appearance of the prosthesis to the appearance of a normal erection? (Circle one)
- 1- very dissimilar
  - 2- moderately dissimilar
  - 3- somewhat dissimilar
  - 4- slightly dissimilar
  - 5- exactly the same

5. How similar is the "feel" to a normally erect penis? (Circle one)
- 1- the same
  - 2- slightly dissimilar
  - 3- somewhat dissimilar
  - 4- moderately dissimilar
  - 5- very dissimilar

If the prosthesis is the inflatable type, when flaccid, how similar is the "feel" of the prosthesis to a normally flaccid penis? (Circle one)

- 1- the same
- 2- slightly dissimilar
- 3- somewhat dissimilar
- 4- moderately dissimilar
- 5- very dissimilar

6. How much change has there been in the frequency of intercourse between you and your partner since the implantation? (Circle one)  
 0- not applicable, didn't have intercourse before the implant  
 1- very much less frequent now  
 2- less frequent now  
 3- about the same now as before  
 4- more frequent now  
 5- very much more frequent now
7. Did you know your partner prior to the implantation? (Circle one)  
 1- yes  
 2- no
- If yes, how satisfactory are your sexual interactions now, as compared to before the implant? (Circle one)  
 1- much more satisfying now  
 2- somewhat more satisfying now  
 3- about as satisfying now as before  
 4- somewhat less satisfying now  
 5- much less satisfying now
8. How did your partner's receiving the prosthesis affect your marriage or interpersonal sexual relationship? (Circle one)  
 1- decreased satisfaction greatly  
 2- decreased satisfaction moderately  
 3- no change in satisfaction  
 4- increased satisfaction moderately  
 5- increased satisfaction greatly
9. Compared to before the implant, how much do you fear your partner may be sexually unfaithful? (Circle one)  
 0- not applicable, didn't know him before  
 1- much more now  
 2- somewhat more now  
 3- about the same now as before  
 4- somewhat less now  
 5- much less now
10. How did you think the operation would affect your relationship?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
11. How much has the prosthesis changed your views or feelings about your partner? (Circle one)  
 0- not applicable, didn't know him before the implant  
 1- much more negative about him now  
 2- somewhat more negative about him now  
 3- no change  
 4- somewhat more positive about him now  
 5- much more positive about him now

Would you specify, if possible, the types of changes in your feelings about him?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

12. How has the duration of your sexual play changed since the implant? (Circle one)
- 0- not applicable, didn't know him before the implant
  - 1- much shorter now than before
  - 2- somewhat shorter now than before
  - 3- about the same now as before
  - 4- somewhat longer now than before
  - 5- much longer now than before
13. How has the type of sexual activity which you engage in with your current partner changed due to the implant? (Circle one)
- 0- not applicable, didn't know him before
  - 1- much less of our sex play includes intercourse now
  - 2- less of our sex play includes intercourse now
  - 3- the amount of intercourse in our sex play has not changed
  - 4- more of our sex play includes intercourse now
  - 5- much more of our sex play includes intercourse now
14. If you indulge in other types of sexual relations (e.g. oral; manual stimulation; individual or mutual masturbation), how does the frequency of these activities compare with their frequency before the implantation?
- Type of activity: \_\_\_\_\_
- 0- not applicable
  - 1- much less frequent now than before
  - 2- somewhat less frequent now than before
  - 3- about the same now as before
  - 4- somewhat more frequent now than before
  - 5- much more frequent now than before
  - 6- other, please specify: \_\_\_\_\_
- 
15. Has the "mechanical" nature of the prosthesis affected your feeling of desirability as a sexual partner? (Circle one)
- 1- greatly decreased it
  - 2- slightly decreased it
  - 3- not affected it
  - 4- slightly affected it
  - 5- greatly increased it
16. Indicate the degree to which the following statement represents your feelings, by using the following scale:
- 1- totally    2- moderately    3- somewhat    4- slightly    5- not at all
- "I am no longer essential or important in arousing sexual excitement in my partner because his erections are 'artificial' and can be achieved whether I 'turn him on' or not."
- Circle one:    1    2    3    4    5
17. Did you have sex with your partner before the implant surgery?
- 1- yes
  - 2- no
- If yes, how much has the implant affected your ability to achieve orgasm through intercourse? (Circle one)
- 0- I don't reach orgasm through intercourse
  - 1- greatly increased my ability
  - 2- increased my ability
  - 3- didn't affect my ability
  - 4- decreased my ability
  - 5- greatly decreased my ability

18. Use the following scale in answering this question:  
 1- very poor    2- poor    3- adequate    4- good    5- very good
- Put a number by each of the following statements to indicate how helpful and accurate you found the information you received before the surgery to be in describing:
- \_\_\_ (a) physical effects of the implant
  - \_\_\_ (b) appearance of the implant
  - \_\_\_ (c) feel of the implant
  - \_\_\_ (d) effect of the implant on your sexual and personal life
  - \_\_\_ (e) actual aspects of the operation itself and the inherent risks
19. If you could do it over again, would you recommend that your partner proceed with obtaining the prosthesis? (Circle one)
- 1- yes
  - 2- no
20. What were some of your questions or major concerns regarding the prosthesis?
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
21. What advice or recommendations would you make to other people who were in the position you were in prior to the implantation? ( ) not applicable, I didn't know him
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
22. Do you have any suggestions for future prospective implant candidates?
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
23. What suggestions would you make to improve the implant itself?
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
24. How successful would you rate the device as being? (Circle one)
- 1- completely successful
  - 2- moderately successful with few problems
  - 3- basically successful, but with a moderate number of problems
  - 4- somewhat unsuccessful with too many problems, but not a total failure
  - 5- totally unsuccessful

25. Would you contribute any other comments, thoughts or suggestions which you might have concerning the device, its effects on you and your partner, that were not previously solicited?

---

---

---

---

---

---

26. Would you contribute any comments in general that you have which you feel might be helpful to us in this research?

---

---

---

---

---

---

APPENDIX D

DEMOGRAPHIC CHARACTERISTICS OF SAMPLE

Table D.1. Demographic characteristics of implant patients and partners.

Demographic Characteristics	IPP				Non-IPP				Transfer to IPP				Total			
	n	%	$\bar{X}$	S.D.	n	%	$\bar{X}$	S.D.	n	%	$\bar{X}$	S.D.	n	%	$\bar{X}$	S.D.
Sample																
Patients	34	69.4			11	22.4			4	8.2			49	100		
Partners	34	69.4			11	22.4			4	8.2			49	100		
Age																
Patients	31	65.2	59.5	10.0	11	23.9	65.8	9.0	4	10.9	63.5	12.1	46	100	61.4	10.1
Partners	20	68.9	52.9	10.5	6	20.7	62.3	9.9	3	10.4	64.0	1.7	29	100	56.0	10.8
Marital Status																
Married	28	57.2			11	22.4			4	8.2			43	87.8		
Divorced	5	10.2			0	0			0	0			5	10.2		
Single	1	2.0			0	0			0	0			1	2.0		
Duration of Implant (years)			3.6	1.6			2.9	.8			4.4	2.3			3.4	1.5
Present Functioning of implant																
Functional	30	61.2			11	22.4			4	8.2			45	91.8		
Dysfunctional	4	8.2			0	0			0	0			4	8.2		
Revisions to implant																
None	18	36.7			10	20.4			0	0			28	57.1		
One	12	24.5			1	2.0			3	6.2			16	32.7		
Two or more	4	8.2			0	0			1	2.0			5	10.2		

Table D.1--Continued

Demographic Characteristics	IPP				Non-IPP				Transfer to IPP				Total			
	n	%	$\bar{X}$	S.D.	n	%	$\bar{X}$	S.D.	n	%	$\bar{X}$	S.D.	n	%	$\bar{X}$	S.D.
<b>Diagnosis</b>																
Diabetes mellitus	2	4.2			0	0			0	0			2	4.2		
Neurological	2	4.2			0	0			0	0			2	4.2		
Peyronies	12	25.0			1	2.1			1	2.1			14	29.2		
Radical public surgery	4	8.3			6	12.5			1	2.1			11	22.9		
Spinal cord injury	3	6.2			2	4.2			1	2.1			6	12.5		
Unknown organic	1	2.1			1	2.1			0	0			2	4.2		
Vascular disease	9	18.7			1	2.1			1	2.1			11	22.9		

## REFERENCES

- American Medical Systems. (1982). Inflatable penile prosthesis: A dynamic system providing complete flaccidity or full-girth erection. Minnetonka, Minnesota.
- Ansari, J. (1976). Impotence: Prognosis (A controlled study). British Journal of Psychiatry, 128, 194-198.
- Antill, J. K. (1983). Sex role complementarity versus similarity in married couples. Journal of Personality and Social Psychology, 45, 145-155.
- Apte, S. M., Gregory, J. E. & Purcell, M. H. (1984). The IPP, reoperation and patient satisfaction: A comparison of statistics obtained from patient record review with statistics obtained from intensive followup search. Journal of Urology, 131, 894-895.
- Araki, T., Ohmou, H., Ohashi, Y., Shirai, M., Kawamura, S. & Saito, S. (1984). Surgical treatment of impotence caused by megalourethra. Urology, 24, 246-249.
- Athanasiou, R., Shaver, P. & Tavris, C. (1970). Sex. Psychology Today, 4, 39-52.
- Auerbach, R. & Kilmann, P. (1977). The affects of group systematic desensitization on secondary erectile failure. Behavior Therapy, 8, 330-339.
- Baer, P. E., Karacan, I. & Charlesworth, E. (in press). Psychopathology and mood in impotent men with intact or impaired nocturnal penile tumescence. Journal of Urology.
- Baider, L. & Sarell, M. (1984). Couples in crisis: Patient-spouse differences in perception of interaction patterns and the illness situation. Family Therapy, 11, 115-122.
- Bancroft, J. (1983). Human sexuality and its problems. New York: Churchill Livingstone, Inc.

- Barbach, L. (1983). For each other: Sharing sexual intimacy. Garden City, New York: Anchor Books/Doubleday.
- Barbach, L. & Levine, L. (1981). Shared intimacies: Women's sexual experiences. Garden City, New York: Anchor Books/Doubleday.
- Barry, W. A. (1970). Marriage research and conflict: An integrative review. Psychological Bulletin, 73, 41-54.
- Barry, J. M., Giesy, J. D. & McDuffie, R. (1982). Actuarial survivals of inflatable and flexible, hinged penile prosthesis. Urology, 20, 605.
- Beaser, R. S., Van der Hoek, C., Jacobson, A. M., Flood, T. M. & Desautels, R. E. (1982). Experience with penile prostheses in the treatment of impotence in diabetic men. JAMA, 248, 943-948.
- Beutler, L. E. (1971). Attitude similarity in marital therapy. Journal of Consulting and Clinical Psychology, 37(2), 298-301.
- Beutler, L. E. (1979). Female partner reaction to penile prosthesis: A discussion. Paper presented at the Annual Meeting of the American College of Gynecologists, New York, April 1979.
- Beutler, L. E. & Gleason, D. M. (1981). Integrating the advances in the diagnosis and treatment of male potency disturbance. Journal of Urology, 126, 338-342.
- Beutler, L. E., Karacan, I., Anch, A. M., Salis, P. J., Scott, F. B. & Williams, R. L. (1975). MMPI & MIT discriminators of biogenic and psychogenic impotence. Journal of Consulting and Clinical Psychology, 43, 899-903.
- Beutler, L. E., Scott, F. B. & Karacan, I. (1976). Psychological screening of impotent men. Journal of Urology, 116, 193.
- Beutler, L. E., Scott, F. B., Karacan, I., Baer, P. E., Rogers, R. R. & Morris, J. (1984). Women's satisfaction with penile implants: Inflatable and noninflatable prostheses. Urology, 24, 552-558.

- Beutler, L. E., Scott, F. B., Rogers, R. R., Karacan, I., Baer, P. E. & Gaines, J. A. (1986). Inflatable and noninflatable penile prostheses: Comparative follow-up evaluation. Urology, 27, 136-143.
- Birchler, G. R. & Webb, L. J. (1977). Discriminating interaction behaviors in happy and unhappy marriages. Journal of Consulting and Clinical Psychology, 45(3), 494-5.
- Blake, D. J., McCartney, C., Fried, F. A. & Fehrenbaker, L. G. (1983). Psychiatric assessment of penile implant. Urology, 21, 252-256.
- Borgoras, N. A. (1936). Uber die volle plastische Wiederherstellung eines zum koitus fahigen Penis (peni-plastic totalis). Zentralbl, Chir., 63, 1271.
- Burgess, E. W. & Wallin, P. (1953). Engagement and Marriage. Philadelphia: J. B. Lippincott Co.
- Byrne, D. & Blaylock, B. (1963). Similarity and assumed similarity of attitudes between husbands and wives. Journal of Abnormal and Social Psychology, 67(6), 636-640.
- Chaikin, L., Carrion, H. & Politano, V. (1981). Complications of the Small-Carrion penile prosthesis: Long-term followup. Journal of Urology, 126, 44-45.
- Chester, R. & Walker, C. (1979). Sexual experience and attitudes of British women. In: R. Chester & J. Peel (Eds.), Changing patterns of sexual behavior. London: Academic Press.
- Christensen, A., Sullaway, M. & King, C. E. (1983). Systematic error in behavioral reports of dyadic interaction: Egocentric bias and content effects. Behavioral Assessment, 5, 129-140.
- Christensen, D. N. (1983). Postmastectomy couple counseling: An outcome study of a structured treatment protocol. Journal of Sex and Marital Therapy, 9, 266-275.
- Clark, M. & Gosnell, M. (1984). Overcoming impotence. Newsweek, June 18, 1984, 86-90.

- Coombs, R. H. (1966). Value consensus and partner satisfaction among dating couples. Journal of Marriage and the Family, 28, 166-173.
- Cooper, A. (1968). A factual study of male potency disorders. British Journal of Psychiatry, 114, 719-731.
- Csillag, E. (1976). Modification of penile erectile response. Journal of Behavior Therapy and Experimental Psychiatry, 7, 27-29.
- Derogatis, L. R. (1975). Derogatis Sexual Functioning Inventory (DSFI). Baltimore: Clinical Psychometrics Research.
- Derogatis, L. R. (1977). The SCL-90-R Manuel I: Scoring, Administration and Procedure for the SCL-90-R. Baltimore: Clinical Psychometrics Research.
- Derogatis, L. R. & Melisaratos, N. (1979). The DSFI: A multidimensional measure of sexual functioning. Journal of Sex and Marital Therapy, 5, 244-281.
- Derogatis, L. R., Meyer, J. R. & Dupkin, C. N. (1976). Discrimination of organic versus psychogenic impotence with the DSFI. Journal of Sex and Marital Therapy, 2, 229-239.
- Divita, E. C. & Olsson, P. A. (1975). The use of sex therapy in a patient with a penile prosthesis. Journal of Sex and Marital Therapy, 1, 305-311.
- Elliot, C. E. (1960). Some small group research variables and interaction in the marital dyad. Unpublished doctoral dissertation, Cornell University.
- Elwood, R. W. & Jacobson, N. S. (1982). Spouses' agreement in reporting their behavioral interactions: A clinical replication. Journal of Consulting and Clinical Psychology, 50, 783-784.
- Everaerd, W. & Dekker, J. (1981). A comparison of sex therapy and communication therapy: Couples complaining of orgasmic dysfunction. Journal of Sex and Marital Therapy, 7, 278-289.
- Fallon, B., Rosenberg, S. & Culp, D. A. (1984). Long-term followup in patients with an inflatable penile prosthesis. Journal of Urology, 132, 270-271.

- Farley, F. H. & Davis, S. A. (1980). Personality and sexual satisfaction in marriage. Journal of Sex and Marital Therapy, 6, 56-62.
- Fields, N. S. (1983). Satisfaction in long-term marriages. Social Work, 28, 37-41.
- Finney, R. P. (1977). New hinged silicone penile implant. Journal of Urology, 118, 585-587.
- Finney, R. P., Sharpe, J. R. & Sadlowski, R. W. (1980). Finney hinged penile implant: Experience with 100 cases. Journal of Urology, 124, 205-207.
- Fisher, C., Schiavi, R., Lear, H., Edwards, A., Davis, D. M. & Witkin, A. P. (1975). The assessment of nocturnal REM erection in the differential diagnosis of sexual impotence. Journal of Sex and Marital Therapy, 1, 277-289.
- Frank, E., Anderson, C. & Rubenstein, D. (1978). Frequency of sexual dysfunction in "normal" couples. New England Journal of Medicine, 299, 111-115.
- Frenken, J. (1976). Afkeer van seksualiteit. Van Loghum Slaterus-Deventer.
- Friedman, D. E. & Lipsedge, M. S. (1971). Treatment of phobic anxiety and psychogenic impotence by systematic desensitization employing methohexitone-induced relaxation. British Journal of Psychiatry, 118, 87-90.
- Furlow, W. L. (1978a). Surgical management of impotence using the inflatable penile prosthesis: Experience with 103 patients. British Journal of Urology, 50, 114-117.
- Furlow, W. L. (1978b). The current status of the inflatable penile prosthesis in the management of impotence: Mayo Clinic experience updated. Journal of Urology, 119, 363-364.
- Furlow, W. L. (1983). Surgery for male impotence. In J. F. Glenn (Ed.), Urologic Surgery (3rd ed.). Philadelphia: J. B. Lippincott Company.

- Gee, W. F., McRoberts, J. W., Romey, J. D. & Ansell, J. S. (1974). The impotent patient: Surgical treatment with penile prosthesis and psychiatric evaluation. Journal of Urology, 111, 41-43.
- Gerstenberger, D. L., Osborne, D. & Furlow, W. L. (1979). Inflatable penile prosthesis: follow-up study of patient-partner satisfaction. Urology, 14, 583-587.
- Golji, H. (1979). Experience with penile prosthesis in spinal cord injury patients. Journal of Urology, 121, 288-289.
- Hawatmeh, I. S., Gregory, J. G., Houtuin, E. & Purcell, M. H. (1981). Management of impotence by the inflatable penile prosthesis: Six-year followup. Missouri Medicine, 78, 591-3.
- Hicks, M. W. & Platt, M. (1970). Marital happiness and stability: A review of the research in the sixties. Journal of Marriage and the Family, 32, 553-574.
- Hollander, J. B. & Diokno, A. C. (1984). Success with penile prosthesis from patient's viewpoint. Urology, 23, 141-143.
- Jacobson, N. S. & Moore, D. (1981). Spouses as observers of the events in their relationship. Journal of Consulting and Clinical Psychology, 49, 269-277.
- Jensen, S. B. (1981). Diabetic sexual dysfunction: A comparative study of 160 insulin treated diabetic men and women and an age-matched control group. Archives of Sexual Behavior, 10, 493-504.
- Johnson, J. (1965). Prognosis of disorders of sexual potency in the male. Journal of Psychosomatic Research, 9, 195-200.
- Joseph, D. B., Bruskevitz, R. C. & Benson, R. C. (1984). Long-term evaluation of the inflatable penile prosthesis. Journal of Urology, 131, 670-673.
- Kaplan, H. S. (1974). The new sex therapy: Active treatment of sexual dysfunctions. New York: Bruner/Mazel.

- Karacan, I., Ware, H., Pervant, B., Altinel, A., Thornby, J. I., Williams, R. L., Kaya, N. & Scott, F. B. (1978). Impotence and blood pressure in the flaccid penis: Relationship to nocturnal penile tumescence. Sleep 1, 2, 125-132.
- Karacan, I., Williams, R. L. & Thornby, J. I. (1975). Sleep related penile tumescence as a function of age. American Journal of Psychiatry, 132, 932-937.
- Kaufman, J. J., Boxer, R. J., Boxer, B. & Quinn, M. C. (1981). Physical and psychological results of penile prostheses: A statistical survey. Journal of Urology, 126, 173-175.
- Kaufman, J. J., Lindner, A. & Raz, S. (1982). Complications of penile prosthesis surgery for impotence. Journal of Urology, 128, 1192-1194.
- Kerlinger, F. N. (1973). Foundations of Behavioral Research (2nd ed.). New York: Holt, Rinehart and Winston.
- Kessler, R. (1980). Surgical experience with the IPP. Journal of Urology, 124, 611-612.
- Kessler, R. (1981). Complications of inflatable penile prosthesis. Urology, 18, 470-472.
- Kilmann, P. R. & Auerbach, R. (1979). Treatments of premature ejaculation and psychogenic impotence: A critical review of the literature. Archives of Sexual Behavior, 8, 81-100.
- Kinsey, A. C., Pomeroy, W. B. & Martin, C. F. (1948). Sexual behavior in the human male. Philadelphia: Saunders.
- Kinsey, A. C., Pomeroy, W. B., Martin, C. F. & Gebhard, P. H. (1953). Sexual behavior in the human female. Philadelphia: Saunders.
- Kockott, G., Dittman, F. & Nusselt, L. (1975). Systematic desensitization of erectile impotence: A controlled study. Archives of Sexual Behavior, 4, 493-500.
- Kramarsky-Binkhorst, S. (1978). Female partner perception of Small-Carrion implant. Urology, 12, 545-548.

- Kramer, S. A., Anderson, E. E., Bredael, J. J. & Paulson, D. F. (1979). Complications of Small-Carrion penile prosthesis. Urology, 13, 49-51.
- Krane, R. J., Freeberg, P. S. Siroky, M. B. (1981). Jonas silicone-silver penile prosthesis: Initial experience in America. Journal of Urology, 126, 475-476.
- Krauss, D. J., Bogin, D. & Culebras, A. (1983). The failed penile prosthetic implantation despite technical success. Journal of Urology, 129, 969-971.
- Lederer, W. J. & Jackson, D. D. (1968). The Mirages of Marriages. New York: W. W. Norton & Company, Inc.
- Levin, R. J. & Levin, A. (1975). Sexual pleasure. The surprising preferences of 100,000 women. Redbook Magazine, September 1975, 51-58.
- Levine, S. B. (1976). Marital sexual dysfunction: Erectile dysfunction. Annals of Internal Medicine, 85, 342-350.
- Levine, S. B. & Agle, D. (1978). The effectiveness of sex therapy for chronic secondary psychological impotence. Journal of Sex and Marital Therapy, 4, 235-258.
- Levinger, G. & Breedlove, J. (1966). Interpersonal attraction and agreement: A study of marriage partners. Journal of Personality and Social Psychology, 3, 367-372.
- Light, J. K. & Scott, F. B. (1981). Management of neurogenic impotence with inflatable penile prosthesis. Urology, 17, 341-343.
- Luckey, E. B. (1960). Marital satisfaction and its association with congruence of perception. Journal of Marriage and Family Living, 22, 49-54.
- Malloy, T. R. & von Eschenbach, A. C. (1977). Surgical treatment of erectile impotence with an IPP. Journal of Urology, 118, 49-51.
- Malloy, T. R., Wein, A. J. & Carpiello, V. L. (1980). Comparison of the inflatable penile and the Small-Carrion prostheses in the surgical treatment of erectile impotence. Journal of Urology, 123, 678-679.

- Marshall, P., Surridge, D. & Delva, N. (1980). Differentiation of organic and psychogenic impotence on the basis of MMPI decision rules. Journal of Consulting and Clinical Psychology, 48, 407.
- Masters, W. H. & Johnson, V. E. (1966). Human sexual response. London: Churchill.
- Masters, W. H. & Johnson, V. E. (1970). Human sexual inadequacy. London: Churchill.
- Meyers, J. L. (1979). Fundamentals of Experimental Design (3rd ed.). Boston: Allyn and Bacon, Inc.
- Montague, D. K. (1983). Experience with semirigid rod and inflatable penile prostheses. Journal of Urology, 129, 967-968.
- Montague, D. K., James, R. E., DeWolfe, V. G. & Martin, L. M. (1979). Diagnostic evaluation, classification and treatment of men with sexual dysfunction. Urology, 14, 545-548.
- Murstein, B. I. (1974). Sex-drive, person perception and marital choice. Archives of Sexual Behavior, 3(4), 331-348.
- Murstein, B. I. & Williams, P. D. (1983). Sex roles and marital adjustment. Small Group Behavior, 14, 77-94.
- Nettelbladt, P. & Uddenberg, N. (1979). Sexual dysfunction and sexual satisfaction in 58 married Swedish men. Journal of Psychosomatic Research, 23, 141-147.
- Obler, M. (1973). Systematic desensitization in sexual disorders. Journal of Behavioral Therapy and Experimental Psychiatry, 4, 93-101.
- O'Leary, K. D. & Arias, I. (1983). The influence of marital therapy on sexual satisfaction. Journal of Sex and Marital Therapy, 9, 171-181.
- Osborne, D. (1976). Psychologic evaluation of impotent men. Mayo Clinic Proceedings, 51, 363-366.
- Pearman, R. O. (1967). Treatment of organic impotence by implantation of a penile prosthesis. Journal of Urology, 97, 716-719.

- Perlman, S. D. & Abramson, P. R. (1982). Sexual satisfaction among married and cohabiting individuals. Journal of Consulting and Clinical Psychology, 50, 458-460.
- Renne, K. S. (1970). Correlates of dissatisfaction in marriage. Journal of Marriage and the Family, 32, 54-66.
- Renshaw, D. C. (1979). Inflatable penile prosthesis. JAMA, 241, 2637-2638.
- Reynolds, B. S. (1980). Biofeedback and facilitation of erection in men with erectile dysfunction. Archives of Sexual Behavior, 9, 101-113.
- Robiner, W. N., Godec, C. J., Cass, A. S. & Meyer, J. J. (1982). The role of Minnesota Multiphasic Personality Inventory in evaluation of erectile dysfunction. Journal of Urology, 128, 487-488.
- Schiavi, R. C. (1980). Psychological treatment of erectile disorders in diabetic patients. Annals of Internal Medicine, 92, 337-9.
- Schiavi, R. C., Derogatis, L. R., Kuriansky, J., O'Connor, D. & Sharpe, L. (1979). The assessment of sexual function and marital interaction. Journal of Sex and Marital Therapy, 5, 169-224.
- Schiavi, R. C. & Hogan, B. (1979). Sexual problems in diabetes mellitus: Psychological aspects. Diabetes Care, 2, 9-17.
- Schlamowitz, K. E., Beutler, L. E., Scott, F. B., Karacan, I. & Ware, C. (1983). Reactions to the implantation of an inflatable penile prosthesis among psychogenically and organically impotent men. Journal of Urology, 129, 295-298.
- Schoenberg, H. W., Zarins, C. K. & Segraves, R. T. (1982). Analysis of 122 unselected impotent men subjected to multidisciplinary evaluation. Journal of Urology, 127, 445-446.
- Schover, L. R. & von Eschenbach, A. C. (1985). Sexual and marital relationships after treatment for nonseminomatous testicular cancer. Urology, 25, 251-255.

- Scott, F. B., Bradley, W. E. & Timm, G. W. (1973). Management of erectile impotence: Use of implantable inflatable prosthesis. Urology, 2, 80-82.
- Scott, F. B., Byrd, G. T., Karacan, I., Olsson, P., Beutler, L. E. & Attia, S. T. (1979). Erectile impotence treated with an implantable, inflatable prosthesis: Five years of clinical experience. JAMA, 241, 2609-2612.
- Segraves, R. T., Schoenberg, H. W. & Zarins, C. K. (1982). Psychosexual adjustment after penile prosthesis surgery. Sexuality and Disability, 5, 222-229.
- Segraves, R. T., Schoenberg, H. W. & Ivanoff, J. (1983). Serum testosterone and prolactin levels in erectile dysfunction. Journal of Sex and Marital Therapy, 9, 19-26.
- Small, M. P. (1978). Small-Carrion penile prosthesis: A report on 160 cases and review of the literature. Journal of Urology, 119, 365-368.
- Small, M. P., Carrion, H. M. & Gordon, J. A. (1975). Small-Carrion penile prosthesis. New implant for management of impotence. Urology, 5, 479-486.
- Smith, A. D., Lange, P. H. & Fraley, E. E. (1979). A comparison of the Small-Carrion and Scott-Bradley penile prostheses. Journal of Urology, 121, 609-611.
- Sotile, W. M. (1979). The penile prosthesis: A review. Journal of Sex and Marital Therapy, 5, 90-102.
- Spark, R. F., White, R. A. & Connolly, P. B. (1980). Impotence is not always psychogenic. JAMA, 243, 750-755.
- Stafford-Clark, D. (1954). The etiology and treatment of impotence. Practitioner, 172, 397.
- Subrini, L. (1980). Treatment of impotence using penile implant: Surgical, sexual and psychological follow-up. In R. Forleo & W. Pasini (Eds.), Medical Sexology, The Third International Congress, Amsterdam: Elsevier, North Holland, pp. 629-635.

- Subrini, L. (1982). Subrini penile implants: Surgical, sexual and psychological results. European Urology, 8, 222-226.
- Taine, C. (1979). Reflections on impotence. The Journal of Pastoral Care, 33, 17-23.
- Thompson, L. & Walker, A. J. (1982). The dyad as the unit of analysis: Conceptual and methodological issues. Journal of Marriage and the Family, 44, 889-900.
- Thorns, B. & Collard, J. (1979). Who divorces? London: Routledge & Keegan Paul.
- Virag, R., Spencer, P. R. & Frydman, D. (1984). Artificial erection in diagnosis and treatment of impotence. Urology, 24, 157-161.
- Wagner, G. & Green, R. (1981). Impotence--Physiological, psychological, surgical diagnosis and treatment. New York: Plenum Publishing Corp.
- Wallin, P. & Clark, A. (1958). Marital satisfaction and husbands' and wives' perception of similarity in their preferred frequency of coitus. Journal of Abnormal and Social Psychology, 57, 370-373.
- Zimmer, D. (1983). Interaction patterns and communication skills in sexually distressed, maritally distressed, and normal couples: Two experimental studies. Journal of Sex and Marital Therapy, 9, 251-265.