A STUDY OF THE PERSONALITY MAKEUP OF BOTH
MEDICALLY AND FUNCTIONALLY
STERILE COUPLES

APPROVED:

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A STUDY OF THE PERSONALITY MAKEUP OF BOTH
MEDICALLY AND FUNCTIONALLY
STERILE COUPLES

THESIS

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By

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CHAPTER I

INTRODUCTION

Historical Background

In 1797, an English doctor named Buchan wrote:

Barrenness is often the consequence of grief, sudden fear, anxiety, or any of the passions which tend to obstruct the menstrual flux. When barrenness is suspected to proceed from affectation of the mind, the person ought to be kept as easy and cheerful as possible, all disagreeable objects are to be avoided, and every effort taken to amuse and entertain the fancy (3, p. 368).

Even at this early point in history it was felt that it was possible for the psyche to influence a woman's ability to conceive. While this belief persists today and is stated in more scientific terms, the proof necessary to establish it as a fact is far from being unequivocally presented.

In 1939, Rubenstein, in a medical study which did not deal with the psychological makeup of the subjects, through utilization of artificial insemination in combination with different drugs and hormones, attempted to impregnate functionally sterile women, with meager results. (12) Helena Deutsch in 1945, stated,
The entire internal secretory physiologic process that prepares for fecundation is probably a psychosomatic unit in all its phases and is constantly influenced by both the psychic and the organic life. When we refer to psychologic difficulties of conception, we mean that the given woman's inability to become a mother has psychic causes that have disturbed some part of the physiologic process (4, p. 106).

If Deutsch is correct, Rubenstein's failure to deal with or consider the psychological makeup of the subjects of his study could in some measure explain his rather meager results. Kroger and Freed (7, p. 867) attempted to relate the psychological aspects with the physiological function in their paper published in 1950, when they stated,

... And psychogenic sterility known to occur in some women, may be the end result of a deep-seated neurotic anxiety, pervading our culture. The latter types of sterility actually represent the complete failure of normal female biological functioning. Psychogenic sterility probably occurs far more often in civilized, rather than primitive peoples.

Since individuals may have constriction of smooth muscle tissues in the uterus which would prevent ovum from meeting the sperm...

... It is a well recognized psychological fact that a spasm of the smooth muscle is one of the most common visceral response to emotional tension. This response of uterotubal spasm to emotional tension in such individuals may not even be relieved by anesthesia. ... It has been demonstrated that the premenstrual period is one of great stress in most sterile women (7, p. 867).

This paper sets out the general direction of inquiry followed by investigators in the following decade. The method of inquiry into the psychological factors was that utilized by Deutsch, the psychiatric interview with an accompanying medical
examination of both husband and wife. The emphasis of relating psychological factors to sterility was generally confined to the wife and relied heavily on the five personality types reported by Deutsch to be involved in functional or psychogenic sterility. She reported the following personality types arrived upon from her empirical psychoanalytical experience:

1. The physically and psychologically infantile woman
2. Woman expending her motherliness on her husband
3. a. The feminine - Erotic woman
   b. The woman who devotes her life to an ideology or another emotionally determined interest
4. The masculine - Aggressive woman who refuses to accept femininity
5. The emotionally disturbed woman who fears additional emotional burdens (4, p. 113-116).

All of these fears are unconscious and may be in direct opposition to the conscious desire of the women in question.

In 1953, Fischer (5, p. 467) carried out a study of psychologically sterile women and concluded that rather than five basic personality types there were but two basic types under which could be categorized all functionally sterile women.

1. The weak, emotionally immature, dependent, over-protected woman
2. The ambitious, masculine, aggressive, dominating, career-type woman.

Under Type 1 he made two subdivisions: 1 a, women who feel that their upbringing was inadequate and are consequently afraid of motherhood, and 1 b, women not only afraid of motherhood but also of pregnancy, labor, death, loss of figure, loss
of husband. Under Type 2 he made three subdivisions: 2a, women who are motherly but confine this attitude toward weak husbands who need it, 2b, women who unconsciously avoid conflict which might result in a split of their interests, and 2c, masculine, aggressive women who refuse to accept femininity (5, p. 468).

In 1951, Rubenstein reported on five cases studied by psychiatric methods that "the psychodynamics of sterility in these five patients may be depicted in their feeling of rejection by their mother, their feeling of hatred for their mother, their feeling of hatred for their children, their feeling that they would kill the children if they had any" (13, p. 72).

In 1958, Bos and Cleghorn (2, p. 89) studied eight personality factors in female sterility and made two observations:

Careful study of various types shown, reveals that actually, basically, the affective attitudes involved are two: 1. fear of impregnation 2. rejection of impregnation.

The second important observation . . . reveals that the psychologic conflicts surrounding impregnation are manifestations of disturbed total personalities. This observation is important because of what it implies with regard to the treatment of this form of sterility. Sterility may be a defense of the disturbed personality against stresses of pregnancy and motherhood with which it is either unwilling or incapable of coping (2).

These leads were followed by other studies (1, 8, 9, 10, 11, 13, 15, 16, 17, 18), all relating either directly or
indirectly to Deutsch's original observations and utilizing her methods. The state of understanding of the problem of functional sterility and its possible psychological basis is expressed by Noyes and Chapwick (10) in their review of the literature on psychology and infertility covering the years from 1935 to 1963. They state:

It is widely believed that psychologic factors may be the cause of infertility in couples who have no apparent organic disability. Many articles in the literature contribute to this belief, but few contain rigorous proof that this is fact (10, p. 543).

So after twenty-eight years of relatively continuous study, the problem defies positive proof or explanation. One of the most confusing problems involved with the investigation of a causal relationship between personality type and the inability to conceive is the fact that numerous personality factors are cited as impairing fertility. However, for every functionally sterile woman of a given personality type there are many others of the same personality type who are, in fact, fertile.

But we must not forget the case of Mrs. Andrews, which shows us in a very instructive manner that the same kind of fear, instead of functioning as a warning signal, can be a condition for pleasurable experience of intercourse and thus lead to a result opposite to sterility, that is to say, to compulsive conceptions. . . . In psychosomatic medicine there is a tendency to ascribe certain organic disturbances to definite personality types. The type of sterile woman discussed here would fit into such a scheme, were it not for the fact that this same type, with similar bodily and psychic characteristics, is found among women
who conceive with particular facility and bring forth many children in quick succession (4, p. 112).

To further complicate matters, Chapwick and Noyes (10), in their survey of the literature, listed twenty-three psychological factors reported in the literature which are said to cause infertility:

1. Masculine-aggressive personality
2. Feminine-Immature personality
3. Functional derangements (resulting from psychic disturbances)
4. Rejection—doesn't really want pregnancy
5. Adoption will reverse infertility
6. Frigidity
7. Hostile—dependence on mother
8. Anxiety due to feminine role conflict
9. Plays role of mother to dependent husband
10. Superficial psychotherapy reversing infertility (10, p. 540)
11. Coital insufficiency
12. Guilty fear
13. Psychoanalysis reversing infertility
14. Sedative drugs affecting fertility
15. Depression
16. Rejection of husband
17. Psychogenesis of spermatogenesis
18. Tenseness
19. Social impoverishment
20. Obsessive-compulsive personality
21. Vaginismus
22. Anovulomenorrhea
23. Husband representing a father figure (10, pp. 545-50).

Casual inspection of this list should make it apparent that in spite of the number of efforts to study the psychic "causes" of sterility, little light has been shed upon the subject which would help illuminate the way for further investigation.
Perhaps one of the fresher approaches to the problem of functional sterility is that suggested by Heiman, who projects the following definition of infertility:

Infertility can be defined as a conjugal psychosomatic condition involving the interrelationship of somatic and psychological factors in both husband and wife. A thorough investigation of infertility involves the study of two partners organically and psychologically, both as individuals and partners in a marriage (6, p. 247).

The difference in emphasis is best seen by comparing this definition with the definition accepted by most researchers prior to this time:

Psychogenic sterility can be defined as sterility in a couple in whom no pathology or dysfunction can be demonstrated by any method available to us today (5, p. 466).

The fresher and, hopefully, more promising emphasis is the recognition of the conjugal origin and of the interrelationship of factors between both husband and wife. That this interrelationship has been overlooked is further pointed out as Heiman continues,

Sixteen papers published since 1950, which dealt with psychologic or emotional aspects of infertility, were analyzed for this report. No study reported any psychologic evaluation of the husband. In three papers mention was made of the psychologic interaction between husband and wife, but such interaction was not studied. In six papers the interaction between psychic and somatic factors in the wife was considered but not studied. In these sixteen papers reporting on six hundred fifty-
three couples, there is no study wherein both husband and wife were investigated as to the psychologic and physiologic factors in both or their interrelationship within each partner and between both partners (6, p. 548).

As a result of this survey, it was their conclusion that research into the causes of infertility, as defined by them, had not yet begun.

Of the seventy-five articles critically evaluated by Noyes and Chapwick (15), only one utilized standardized psychological measuring techniques. In this study, utilizing the Johnson Temperament Analysis in addition to the Projective Thematic Apperception Test for their measuring instruments, Rutherford, Banks, Coburn, and Williams (14, p. 131) concluded that,

One of the most promising areas yet to be explored is the role of tensions within the marriage, or within the individual, which would render the normal reproductive function inadequate, or upon occasions null and void. Utilization of modern psychometric testings by a competent psychologist has demonstrated that such tension problems can be elicited. This information has acquired enough accuracy so that a clinician interested in infertility can derive great help from such studies (Rutherford, Banks, etc.).

Statement of Problem

It is the purpose of this study to investigate three questions which, if answered, should bring about a better understanding of the factors contributing to functional or psychogenic sterility. The questions under investigation are
1. Does there exist a measurable difference between the personality patterns of functionally sterile and medically sterile married women?

2. Does there exist a measurable difference between the personality patterns of functionally sterile and medically sterile married men?

3. Does there exist a measurable difference between the interaction of the personality patterns of functionally sterile couples and medically sterile couples?

Hypotheses

1. There will be a significant difference between the personality patterns of functionally sterile and medically sterile women.

2. There will be a significant difference between personality patterns of functionally sterile and medically sterile males.

3. There will be a significant difference between the interaction of husband wife profiles between the two groups.
CHAPTER BIBLIOGRAPHY


CHAPTER II

METHOD

Subjects

The subjects for this study consisted of 178 applicants for infant adoption at a licensed, denominationally-supported adoption agency. In accordance with agency requirements, all applicants were members of a Protestant denomination. Their socioeconomic class was not specifically determined for this study but would be estimated to extend from the upper lower to upper middle socioeconomic standing, on the basis of the fee required for adoption as well as the living space requirements set forth by the agency.

All applicants were required by the agency to submit a medical report concerning their general physical health as well as the reason for sterility. On the basis of this medical report, couples were placed in one of two groups: (a) functionally sterile--neither partner in the marriage having a medical reason for sterility, and (b) medically sterile--one or both partners having a medical reason for sterility.
The age range extended from 20 years to 40 years of age, with the mean age for the total N being 29.0 years of age. Between groups, the mean age for the functionally sterile groups was 26.56 years, with the mean ages for the men's and women's groups being 29.84 years and 23.28 years, respectively. The mean age for the medically sterile groups was 30.94 years, with the mean ages for men and women being 32.97 and 28.91 years, respectively.

All couples had been married at least two years, with the mean length of marriage being 7.70 years for the total N, with 6.16 years and 8.26 years, respectively, for the functionally and medically sterile groups.

Experimental Design

All subjects were administered group forms of the Minnesota Multiphasic Personality Inventory as a routine part of their adoption application. The inventories were scored and profiled according to the method outlines by Dahlstrom and Welsch (1).

Limitations of the Study

Due to the nature of the study and necessary modifications in the data-gathering process and the nature of the subjects studied, several limitations make themselves apparent. The most
obvious limitation is that the conclusions concerning functional sterility can only be applied to those couples who are functionally sterile yet desire children and seek to fill this need through adoption. Needless to say, many childless couples never attempt to adopt children and live apparently mutually satisfying lives. Since the subjects studied were seeking adoption, it would seem that their inability to conceive naturally was a source of distress to at least one of the partners. This motivation for parenthood, frustrated by an inability to conceive, is probably a distinguishing factor in functionally sterile couples who seek adoption.

Another limitation to the study was the fact that due to agency policy all applicants were of a Protestant denomination and do not represent a cross section of religious outlook. This may be important since several religious denominations have strong beliefs concerning marriage, parenthood, etc., which could complicate the measurable personality of functionally sterile couples.

Statistical Treatment of the Data

Hypotheses I and II required treatment of data in such a manner that significant differences between groups could be determined. For this purpose a series of Hotelling's $T^2$ tests
were utilized to determine whether a significant difference existed between group means. Snedecor's Table of F Distribution (2) was used to determine the F required for the .05 level of significance. In cases where the $T^2$ was found significant, a $t$ test for differences between two individual means was computed for each pair of means used in the $T^2$ test. The $t$ value obtained was evaluated to determine whether there existed a significant difference between the means tested by utilizing Snedecor's F Tables (2).

In testing hypotheses I and II, the raw scores uncorrected for K were utilized. The independent variable was the sterility classification with the 13 MMPI scales serving as dependent variables.

In testing hypothesis III, it was necessary to obtain difference scores between husband and wife for each dependent variable in order to determine whether a significant difference existed between the two groups of sterility, in the manner in which couples responded to the scales of the MMPI. In order to determine which scales were most likely to reveal a significant difference between the functionally sterile couples and the medically sterile couples, profile graphs using the mean scores for each MMPI scale were plotted. $t$ tests were then performed on those scales showing the greatest observable difference, beginning with the scale showing the greatest
difference. The obtained t values were evaluated for significance by utilizing Snedecor's t tables (2, pp. 538-39).
CHAPTER BIBLIOGRAPHY


CHAPTER III

CONCLUSIONS

Analysis and Discussion of Data

Three hypotheses were tested in an effort to investigate the relationship between personality and functional sterility and the relationship of husband-wife contrasted scores and functional sterility. This chapter will report quantitative data and the statistical tests of those data.

Analysis of Quantitative Data

In Hypothesis I, it was stated that there would exist a significant difference between the personality patterns of functionally sterile and medically sterile women. To test this hypothesis, the MMPI raw scores (unK-corrected) of each group were compared by means of Hotelling's $T^2$ technique (4). The results shown on Table I, yielding an $F$ of .79739, were interpreted to indicate that no significant differences existed between functionally sterile and medically sterile females on any of the thirteen scales of the MMPI. Therefore, the null hypothesis predicting no expected difference
**TABLE I**

**HOTELLING'S T$^2$ COMPARISON AND LEVEL OF SIGNIFICANCE OF DIFFERENCE BETWEEN FUNCTIONALLY STERILE AND MEDICALLY STERILE FEMALES ON THE MINNESOTA MULTIPHASIC PERSONALITY INVENTORY**

**SCALE SCORES UNCORRECTED FOR K.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Functionally Sterile Females</th>
<th>Medically Sterile Females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Variance</td>
</tr>
<tr>
<td><strong>L</strong></td>
<td>4.5238</td>
<td>3.7256</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td>2.6238</td>
<td>1.9756</td>
</tr>
<tr>
<td><strong>K</strong></td>
<td>16.7143</td>
<td>18.8232</td>
</tr>
<tr>
<td><strong>H_s</strong></td>
<td>4.0000</td>
<td>8.9524</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>19.3810</td>
<td>11.09298</td>
</tr>
<tr>
<td><strong>H_y</strong></td>
<td>21.1905</td>
<td>14.0590</td>
</tr>
<tr>
<td><strong>P_d</strong></td>
<td>12.9286</td>
<td>4.5425</td>
</tr>
<tr>
<td><strong>M_f</strong></td>
<td>39.4762</td>
<td>19.3446</td>
</tr>
<tr>
<td><strong>P_a</strong></td>
<td>9.4286</td>
<td>4.1020</td>
</tr>
<tr>
<td><strong>P_t</strong></td>
<td>10.9286</td>
<td>33.6854</td>
</tr>
<tr>
<td><strong>S_c</strong></td>
<td>6.6666</td>
<td>16.4127</td>
</tr>
<tr>
<td><strong>M_a</strong></td>
<td>12.0952</td>
<td>11.0861</td>
</tr>
<tr>
<td><strong>S_i</strong></td>
<td>31.7143</td>
<td>53.4898</td>
</tr>
</tbody>
</table>

$T^2 = 12.0472$  \[F = .79739 \text{ at } .05\text{ level}\]

$DF_1 = 13$  \[DF_2 = 74\]
cannot be rejected. This can be more clearly seen by reference to Illustration I, where the mean scale scores of both groups have been plotted in comparison.

ILLUSTRATION I

COMPARISON OF MEAN MMPI SCALE SCORES BETWEEN FUNCTIONALLY STERILE AND MEDICALLY STERILE FEMALES

Hypothesis II stated that a significant difference was expected between the MMPI profiles of functionally sterile and medically sterile males. This hypothesis was tested by using Hotelling's $T^2$ technique as described above.

Study of the results depicted in Table II shows that the reported $F$ of 1.01837 fails to be significant (2). These findings were interpreted to indicate that there were no significant differences between the functionally sterile males and the medically sterile males on any of the thirteen MMPI scales. It is therefore inappropriate to reject the null form of Hypothesis II,
TABLE II
HOTELLING'S $T^2$ COMPARISON AND LEVEL OF SIGNIFICANCE
OF DIFFERENCE BETWEEN FUNCTIONALLY STERILE
AND MEDICALLY STERILE MALES ON
THE MINNESOTA MULTIPHASIC
PERSONALITY INVENTORY

SCALE SCORES UNCORRECTED
FOR K.

<table>
<thead>
<tr>
<th>Functionally Sterile Males</th>
<th>Medically Sterile Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>Mean</td>
</tr>
<tr>
<td>L</td>
<td>3.89130</td>
</tr>
<tr>
<td>F</td>
<td>2.52173</td>
</tr>
<tr>
<td>K</td>
<td>17.47826</td>
</tr>
<tr>
<td>$H_s$</td>
<td>2.84782</td>
</tr>
<tr>
<td>D</td>
<td>16.28260</td>
</tr>
<tr>
<td>$H_y$</td>
<td>20.10869</td>
</tr>
<tr>
<td>Pd</td>
<td>15.17391</td>
</tr>
<tr>
<td>Mf</td>
<td>23.47826</td>
</tr>
<tr>
<td>Pa</td>
<td>9.52173</td>
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<tr>
<td>Pt</td>
<td>8.04347</td>
</tr>
<tr>
<td>Sc</td>
<td>5.89130</td>
</tr>
<tr>
<td>Ma</td>
<td>13.71739</td>
</tr>
<tr>
<td>Si</td>
<td>24.56521</td>
</tr>
<tr>
<td>$T_s^2$QR = 15.35703</td>
<td>$F = 1.01837$</td>
</tr>
</tbody>
</table>
stating no significant differences between FS males and MS males were expected. Inspection of Illustration II shows in graphic form the compared mean MMPI scale scores of the FS males and the MS males.

ILLUSTRATION II

COMPARISON OF MEAN SCALE SCORES ON MMPI BETWEEN FUNCTIONALLY STERILE AND MEDICALLY STERILE MALES

<table>
<thead>
<tr>
<th>L</th>
<th>F</th>
<th>K</th>
<th>Hs</th>
<th>D</th>
<th>Hy</th>
<th>Pd</th>
<th>Mf</th>
<th>Pa</th>
<th>Pt</th>
<th>Sc</th>
<th>Ma</th>
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</table>

- - - MS Males
- - - FS Males

The third hypothesis dealt with the differences in interaction of husband-wife profiles between the two studied groups. The purpose was to attempt to measure in some manner the differences between marriage partners, between groups. In essence, the difference between difference scores was evaluated for each of the thirteen scales of the MMPI. To conserve time, the mean profiles of FS husbands vs. FS wives (Illustration III) and the mean profiles of MS husbands and MS wives (Illustration IV) were compared by the standard score for their sex.
ILLUSTRATION III

COMPARISON OF MEAN MMPI SCALE
SCORES OF FUNCTIONALLY
STERILE MALES AND
FEMALES
(+ Scores)

ILLUSTRATION IV

COMPARISON OF MEAN MMPI SCALE
SCORES OF MEDICALLY STERILE
MALES AND FEMALES
(+ Scores)
The scales showing the greatest difference between husbands and wives for each group were noted with the exclusion of scale 5 (MF scale). Then the noted scales from each group were compared to see if the differences appeared greater in one group than in the other. By this method form scales were selected for comparison, Ma, Hy, K, Pd. Difference scores between each husband and wife were obtained for the different scales using this time K correction as needed. A t test between means was then utilized.

The largest observed difference (MA scale) was compared first as suggested by Guilford (2, p. 263). Study of the results shown in Table III indicated a significant difference at the .05 level on the Ma scale. The t value obtained on the Hy scale would have been significant had direction been predicted, thus justifying a one-tailed analysis. However, the t values for the Pd and K scales failed to indicate a significant difference. These results are interpreted to support the third hypothesis and allow the rejection of the null form, stating there would be no expected difference in interaction between husband-wife profiles between groups.
TABLE III

$t$ VALUES OBTAINED FROM DIFFERENCES BETWEEN HUSBAND-WIFE DIFFERENCES BETWEEN FUNCTIONALLY AND MEDICALLY STERILE COUPLES AND LEVEL OF SIGNIFICANCE

<table>
<thead>
<tr>
<th>Variable</th>
<th>DF</th>
<th>$t$ Value</th>
<th>$P - .05$ level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ma</td>
<td>87</td>
<td>2.10</td>
<td>1.990</td>
</tr>
<tr>
<td>Hy</td>
<td>87</td>
<td>1.456</td>
<td>1.990</td>
</tr>
<tr>
<td>K</td>
<td>87</td>
<td>0.372</td>
<td>1.990</td>
</tr>
<tr>
<td>Pd</td>
<td>87</td>
<td>0.309</td>
<td>1.990</td>
</tr>
</tbody>
</table>

Discussion of Data

Functional Sterility and Personality Profile.--The relationship between personality and sterility was studied, utilizing a standardized personality measure. As noted in the historical background, many studies have been done relevant to this relationship, yet confusion still clouded
the issue (4). In this study the results are interpreted to show no support for the belief that functional sterility is related in a causal manner to an individual's personality profile, as no significant differences in personality profile were found between either the functionally sterile males and medically sterile males or the functionally sterile females and the medically sterile females in their MMPI profiles.

However, in Hypothesis III, which was designed to test in a limited manner the conjugal interaction, significant differences were found to exist between the two studied groups.

While the results are far from definitive, they are interpreted to mean that there exists a relationship between the interaction of the husband's and wife's personalities and their sterility status. This would mean that definite personality type of the individual alone would not be so important as the consideration of both personalities within the conjugal unit in the light of their marital interaction. If this is the case, treatment of the conjugal unit, as suggested by Heiman (3, p. 249), would be more beneficial to sterility treatment than past attempts at individual treatment. Treatment of this type would be designed to assess the personalities of both husband and wife with the goal of determining the areas of
conflict caused by the faulty interaction between two personalities. This approach could explain why Deutsch (4) and others observed persons of comparable personality dynamics, but one sterile and the other fertile. By taking into consideration the personalities of the mates and the interaction of their personalities, it is possible to theorize that the fertility of Mrs. Andrews (4, p. 112) could have possibly been sterility were her mate of a different personality and their interaction of a different nature.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

SUMMARY AND RECOMMENDATIONS FOR FURTHER RESEARCH

This study was designed to obtain preliminary answers to three questions concerning the phenomena of functional sterility. The first question asked whether there was a significant difference between the personality profiles of functionally sterile and medically sterile females. The second question asked whether a significant difference existed between functionally sterile and medically sterile males. The third question asked whether there was a significant difference between the interaction of husband-wife personality profiles of the two groups. In order to seek to answer these questions, three hypotheses were set up:

1. There will be a significant difference between the personality patterns of functionally sterile and medically sterile women.

2. There will be a significant difference between the personality patterns of functionally sterile and medically sterile males.
3. There will be a significant difference between the interaction of husband-wife profiles between the two groups.

To test these hypotheses, 178 applications for adoption at a licensed private adoption agency, comprising 89 couples, were divided into two groups, functionally sterile and medically sterile, on the basis of their physicians' reports. All subjects were administered group forms of the Minnesota Personality Inventory as the dependent variable.

Statistical analysis of the first two hypotheses was accomplished by use of Hotelling's $T^2$ technique to determine the existence of significant differences between groups. No significant differences on any of the scales were found. The null form of the hypothesis could not be rejected. Statistical analysis of the data testing the third hypothesis yielded a significant difference at the .05 level between the husband-wife interaction of the two groups on the Ma scale. This was interpreted as supporting rejection of the null form of Hypothesis III.

It was concluded that, on the basis of the results of this study, the personality pattern of an individual marriage partner cannot be related in a causal manner to functional
sterility. It was further concluded that the limited support obtained for the third hypothesis, at least, implied that the interaction between husband-wife personality patterns is related to functional sterility. It was further concluded that to be profitable, further research in the area of functional sterility must avoid the emphasis of study of individuals only, as has been done in the past. It should consider functional sterility as a conjugal problem, stemming from faulty interaction between the personalities within a particular conjugal unit. It was pointed out that this approach could explain some inconsistencies that plagued researchers in the past.

Recommendations for Further Research

1. This study compared two groups of sterile subjects. Differences between them were seen as resulting from differences in personality interaction rather than from their sterility. It is suggested that further research measuring difference between husband-wife interaction be undertaken utilizing a functionally sterile group and group of natural parents. It would seem likely that larger and perhaps more meaningful differences could be isolated. Data of this type would be helpful to anyone attempting to work in a therapeutic relationship with the conjugal relationships.
2. One major difficulty in this study was devising even a crude measure of husband-wife interaction. Perhaps a similar study using a more sophisticated measure of interaction would serve to reinforce and expand the present findings.

3. Due to the crudeness of the measure of interaction, no attempt was made to express the differences found in terms of differing personality dynamics between the two groups. By utilization of a more sensitive measuring device or devices, a study could be designed that would seek to describe the dynamics which differ between a functionally sterile marriage and a marriage producing children.

4. Following the previously suggested study, any significant findings could be incorporated into a long range study where the conjugal unit of functionally sterile couples was dealt with therapeutically and the results of such therapeutic intervention analyzed.
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